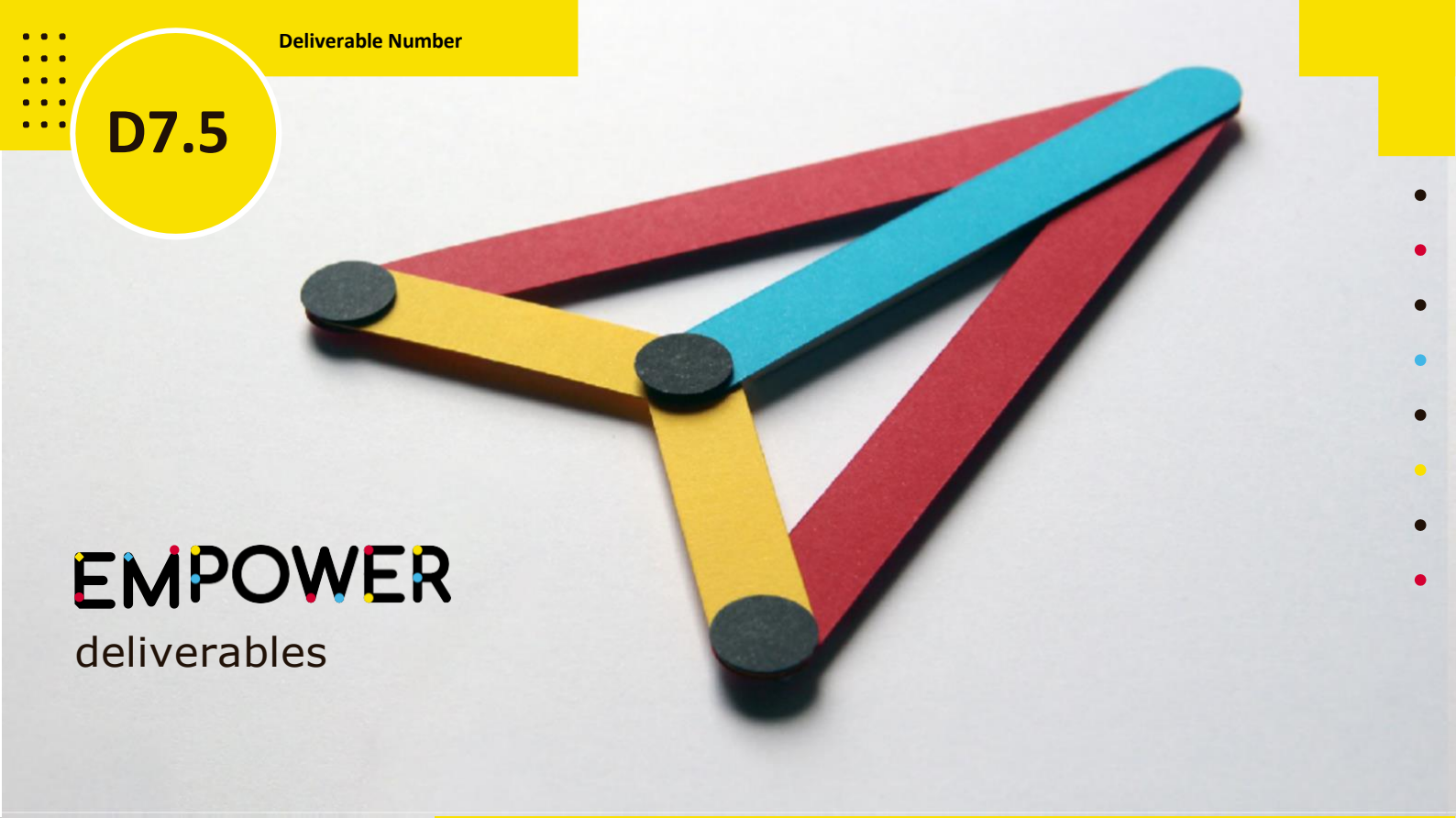
Deliverable Number

D7.5



EMPOWER

deliverables

Deliverable name	White paper on IT for the education of NDDs
Type	R - Document Report
Dissemination level	PU - Public
Date	

White paper: policy recommendations for neurodivergent inclusive education empowering learners through technology

Description

WP.7

Work Package. 7

AE

Date	Version	Description	Authors
27.09.2025	1	First release of the document	Aurelie Baranger , Cristina Costescu
30.09.2025	1.1	Update upon feedback	Aurelie Baranger , Cristina Costescu

Contents

Introduction

The Empower platform addresses a critical gap in education: the lack of accessible, research-informed digital tools designed to support the development of executive functions—such as attention and working memory—in children and adolescents. These cognitive skills are essential for learning, yet approximately one in four students in today's classrooms experience challenges in executive functioning, often linked to neurodivergence (e.g., ADHD, autism, dyslexia, dyspraxia, DLD). These difficulties can significantly impact academic performance and social inclusion.

Despite being present in every classroom, neurodivergent children often face environments that are not designed with their needs in mind. As a result, they are at increased risk of negative educational experiences and outcomes, including higher rates of bullying and social exclusion, lower classroom participation and engagement, poorer peer relationships, increased mental health challenges, and disproportionate rates of school exclusion.

These challenges are not inherent to neurodivergence itself but are often the result of systemic barriers, such as rigid curricula, lack of teacher training, inaccessible learning environments, and insufficient individualized support.

The education system should recognize that all students have cognitive, social, and sensory needs that vary across individuals. It calls for inclusive, flexible, and supportive learning environments that value different ways of thinking and learning, and provide adequate support as needed. This paradigm shift is essential to ensuring that neurodivergent children can thrive in mainstream education, in line with the principles of the UN Convention on the Rights of Persons with Disabilities (Article 24) and broader commitments to equity and inclusion.

Digital resources play a pivotal role in personalizing education for neurodivergent children, who often benefit from individualized instruction tailored to their pace, learning style, and

cognitive profile. Adaptive digital platforms enable real-time customization of tasks, offering scaffolding tools such as step-by-step guidance, simplified layouts, and multimodal content. Research grounded in the Universal Design for Learning (UDL) framework demonstrates that technology can make curricula more flexible and accessible for diverse learners[1].

Beyond accessibility, digital tools provide engaging, multisensory experiences that support attention and comprehension. Many neurodivergent students respond positively to visual, auditory, and interactive cues, which help sustain focus and reinforce understanding. Multimedia learning[2] enhances cognitive processing by integrating words and images. Evidence also shows that computer-assisted instruction improves on-task behaviour and learning outcomes in autistic children[3]. For instance, it appears that a computer-animated tutor significantly enhanced vocabulary acquisition[4], while technology-enhanced learning can foster communication, literacy, and attention[5]. These findings align with broader research on assistive technology, which emphasizes how digital tools can boost motivation, independence, and task completion in special education contexts.

Digital technologies also promote inclusion by enhancing students' motivation and autonomy. Gamified elements—such as rewards, levels, and interactive challenges—make learning more enjoyable, while accessibility features like text-to-speech and customizable colour contrast ensure participation across a range of needs. These design principles reflect Ryan and Deci's Self-Determination Theory[6], which highlights the importance of autonomy and competence in fostering intrinsic motivation among neurodivergent

1 Rose, D. H., & Dalton, B. (2009). Learning to read in the digital age. Mind, Brain, and Education, 3(2), 74–83. https://doi.org/10.1111/j.1751-228X.2009.01057.x
2 Moreno, R., & Mayer, R. E. (2007). Interactive multimodal learning environments. Educational Psychology Review, 19(3), 309–326. https://doi.org/10.1007/s10648-007-9047-2
3 Knight, V., McKissick, B. R., & Saunders, A. (2013). A review of technology-based interventions to teach academic skills to students with autism spectrum disorder. Journal of Autism and Developmental Disorders, 43(11), 2628–2648. https://doi.org/10.1007/s10803-013-1814-y
4 Bosseler, A., & Massaro, D. W. (2003). Development and evaluation of a computer-animated tutor for vocabulary and language learning in children with autism. Journal of Autism and Developmental Disorders, 33(6), 653–672. https://doi.org/10.1023/B:JADD.0000006002.82367.4f
5 Fletcher-Watson, S. (2014). A targeted review of computer-assisted learning for people with autism spectrum disorder: Towards a consistent methodology. Review of Educational Research, 84(4), 456–482. https://doi.org/10.3102/0034654314528799
6 Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. American Psychologist, 55(1), 68–78. https://doi.org/10.1037/0003-066X.55.1.68

learners. When integrated thoughtfully into educational games and platforms, these psychological principles transform digital tools from mere supports into gateways for deeper engagement and participation.

One of the core challenges addressed by the EMPOWER project is the rising prevalence of learning difficulties and attention-related issues among neurodivergent children and adolescents. A significant proportion of students struggle with executive functions—such as attention, working memory, and self-regulation—which are essential for academic success and social development[7]. Traditional classroom strategies often lack the flexibility and precision needed to support these learners, leaving educators with limited tools to identify needs early and deliver targeted interventions.[8] The absence of accessible, evidence-based digital resources further widens this gap, particularly in special education settings where teachers face increasing demands and time constraints[9,10]

A second challenge lies in sustaining student engagement and motivation during cognitive and socio-emotional skill development. Conventional interventions often fail to capture interest or maintain involvement over time—especially for neurodivergent learners who benefit from interactive and personalized approaches[11]. Without innovative solutions, students risk disengagement, which can hinder progress and increase the likelihood of educational exclusion. EMPOWER responds to this issue by embedding skill development into serious games enriched with avatars, scenarios, and reward systems, ensuring that training remains both motivating and developmentally appropriate[12].

A third challenge involves tracking progress and personalizing interventions in ways that

[7] Best, J. R., & Miller, P. H. (2010). A developmental perspective on executive function. Child Development, 81(6), 1641–1660. https://doi.org/10.1111/j.1467-8624.2010.01499.x
[8] Alloway, T. P. (2009). Working memory, but not IQ, predicts subsequent learning in children with learning difficulties. European Journal of Psychological Assessment, 25(2), 92–98. https://doi.org/10.1027/1015-5759.25.2.92
[9] Rose, D. H., & Dalton, B. (2009). Learning to read in the digital age. Mind, Brain, and Education, 3(2), 74–83. https://doi.org/10.1111/j.1751-228X.2009.01057.x
[10] Fletcher-Watson, S. (2014). Ibid
[11] Parsons, S., & Cobb, S. (2014). Reflections on the role of the "users": Challenges in a multi-disciplinary context of learner-centered design for children on the autism spectrum. International Journal of Research & Method in Education, 37(4), 421–441. https://doi.org/10.1080/1743727X.2014.890584
12 Sailer, M., Hense, J. U., Mayr, S. K., & Mandl, H. (2020). How gamification motivates: An experimental study of the effects of specific game design elements on psychological need satisfaction. Computers in Human Behavior, 69, 371–380. https://doi.org/10.1016/j.chb.2016.12.033

are both efficient for educators and meaningful for students. Many teachers struggle to monitor individual development and adjust instruction accordingly[13]. The limited integration of digital tools into everyday practice further restricts opportunities for data-driven personalization. EMPOWER addresses this need through adaptive algorithms, performance dashboards, and innovative tools such as eye-trackers and smartwatches, enabling real-time monitoring and tailored recommendations. This integration provides a robust foundation for continuous improvement in both educational and psychological practice.

Digital technologies can therefore support the development of executive functions—such as working memory, sustained attention, and cognitive flexibility—which are areas of difficulty for many neurodivergent children. Research shows that computer-based interventions can effectively enhance these skills[14]. Executive functions are central to the EMPOWER platform because they underpin a child's ability to learn, regulate emotions, and adapt to the demands of school life. Children with neurodevelopmental conditions often face challenges in processing language, managing sensory input, and maintaining focus—difficulties that are closely linked to executive functioning. Without targeted support, these challenges can significantly impact both academic progress and overall well-being.

Moreover, research highlights a strong connection between executive functions and emotional regulation. Children who struggle to inhibit automatic responses may also find it difficult to adopt adaptive emotional strategies in stressful situations. Working memory has been linked to emotion management, while cognitive flexibility supports more constructive emotional responses. For neurodivergent learners, strengthening executive functions is therefore not only an academic imperative but also a pathway to improved social adjustment and emotional well-being.

13 Black, P., & Wiliam, D. (2009). Developing the theory of formative assessment. Educational Assessment, Evaluation and Accountability, 21(1), 5–31. https://doi.org/10.1007/s11092-008-9068-5
14 Diamond, A. (2020). Executive functions: Insights into ways to help more children thrive. Nature Reviews Neuroscience, 21(7), 335–346. https://doi.org/10.1038/s41583-020-0328-5

In this context, the EMPOWER platform offers a practical and innovative solution. By embedding executive function training within carefully designed digital games, it enables children to practice attention, memory, and flexibility in structured, engaging ways. Features such as avatars, narrative scenarios, and adaptive difficulty levels help sustain motivation and ensure accessibility for a wide range of learners. For educators, the platform provides actionable insights into each child's development, supporting personalized instruction and targeted interventions. EMPOWER thus bridges the gap between cognitive science and classroom practice, translating research into tools that foster both learning and resilience.

Therefore, in a context of rapid digitalization and increasing demands on educators and families, there is an urgent need for effective, engaging, and evidence-based solutions**.** Empower responds to this need by offering a user-friendly digital platform co-designed with learners, educators and psychologists. It features interactive exercises, training resources, and games that serve both as intervention and assessment tools**.**

Learners benefit from practicing attentional control and working memory in a playful, motivating environment, while teachers can monitor progress and adapt strategies based on real-time feedback. Crucially, EMPOWER is designed for use in real educational settings**,** making interventions more relevant, personalized, and inclusive.

By embedding executive function and emotional skill development into engaging serious games—featuring avatars, scenarios, and reward systems—the platform delivers learning experiences that are both motivating and developmentally appropriate. Its integration of adaptive algorithms, performance dashboards, and tools such as eye-trackers and smartwatches enhances its capacity to offer personalized feedback and support continuous improvement. At its core, EMPOWER seeks to drive systemic change in education by fostering inclusive, equitable, and empowering environments for neurodivergent learners. EMPOWER has demonstrated strong potential to translate complex cognitive and psychological research into practical tools that boost student engagement and resilience. Trial sessions revealed high levels of enthusiasm and

persistence among children, often surpassing typical classroom motivation—highlighting the platform's ability to cultivate positive learning attitudes.

While the EMPOWER platform offers promising tools for supporting neurodivergent learners, it cannot, on its own, address the deep-rooted systemic inequities in education. Relying solely on technological solutions risks embracing a techno-deterministic view that overlooks the essential contributions of pedagogy, relational dynamics, institutional culture, and political commitment in driving meaningful change. Without the active and sustained involvement of neurodivergent learners and their families, there is a real danger that inclusion efforts may become superficial—serving institutional reputations rather than student needs—or devolve into assimilationist practices that pressure learners to conform to neurotypical norms under the guise of inclusion.

To ensure meaningful inclusion, it is essential to equip teachers – and to the extent possible, the wider community - with a deep understanding of autistic thinking and learning across the full spectrum of ability and gender. Effective support begins with understanding—before methods are applied—and must prioritize individualization to meet each learner's specific needs. Besides technological solutions, we recommend the use of practical, evidence-based strategies to promote curriculum access and social inclusion. Teachers should be trained in a diverse range of approaches, recognizing that no single method suits all learners. This eclectic, personalized training is key to fostering environments where neurodivergent students can thrive. In that context, a blended approach to learning is key.

For neurodivergent children to thrive in mainstream education, in line with the principles of the UN Convention on the Rights of Persons with Disabilities (Article 24) and broader commitments to equity and inclusion, systemic integration is required. What is the legal and policy context that can support this shift? Who are the key stakeholders that must be engaged? What should be the strategic priorities to make inclusive, technology-supported education a sustainable reality? In this process, it is also crucial to examine the use of technology by neurodiverse students—not only its opportunities for personalization, engagement, and skill development, but also any potential risks related to accessibility,

data privacy, and over-reliance on digital tools. These questions form the foundation for the policy recommendations that follow.

ACCESS TO EDUCATION: THE LEGAL AND POLICY BASIS

Adopted on 13 December 2006, Article 24 of the UN Convention on the Rights of Persons with Disabilities (UNCRPD) enshrines the right of children with disabilities to access inclusive, quality education within the mainstream school system. The ratification of the UNCRPD by the European Union and all the EU member states has been a landmark. It is the first-ever human rights treaty to which the European Union (EU) became a party in its capacity as a supranational organisation.

The UNCRPD intends to promote, protect, and ensure the full and equal enjoyment of all human rights and fundamental freedoms by persons with disabilities. It aims to eliminate barriers and discrimination, ensuring that disabled people can participate fully in society. It places a legal obligation on governments to eliminate segregation, ensure reasonable accommodation, provide individualized support, train education professionals, and create accessible learning environments that foster full participation and equal opportunities. Article 24 CRPD mandates that learners with disabilities be supported through reasonable accommodation, appropriate assistance, and effective individualized support measures.

In 2016, the UN Committee on the Rights of Persons with Disabilities adopted General Comment No. 4 on Article 24 – Right to Inclusive Education of the Convention on the Rights of Persons with Disabilities (CRPD). The Comment affirms that inclusive education is a fundamental right for every learner, requiring a comprehensive transformation in culture, policy, and practice across all formal and informal educational settings. It emphasizes the need to accommodate diverse learning requirements and identities, and to remove barriers that hinder full participation.

This commitment is echoed in the United Nations Sustainable Development Goals (SDGs), particularly SDG 4, which calls on countries to “ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.” In 2022, the UN World Autism Awareness Day focused on inclusive education within the context of SDG 4, highlighting it as “the key to the transformative promise of the Sustainable Development

Goals—to leave no one behind."

Further guidance is provided by the Council of Europe's Recommendation CM/Rec(2009)9, which outlines measures for the education and social inclusion of children and young people with autism spectrum disorders. This recommendation encourages Member States to adopt inclusive practices and ensure equal access to education.

At the European Union level, the European Pillar of Social Rights reinforces this principle, stating that "everyone has the right to quality and inclusive education, training and lifelong learning in order to participate fully in society and successfully navigate transitions in the labour market."

The European Commission has since taken steps to promote inclusive education through key strategies, including the EU Strategy on the Rights of Persons with Disabilities and the EU Strategy on the Rights of the Child, both of which identify inclusive education as a priority area. In 2022, the Commission published a Toolkit for Inclusion in Early Childhood Education and Care, offering practical guidance to support inclusive practices from the earliest stages of learning.

Despite these efforts, there remains no comprehensive EU-wide action plan to address persistent inequalities in education across Member States.

A crucial development in this context is the Digital Education Action Plan (2021–2027), a renewed EU initiative aimed at supporting the sustainable and effective adaptation of education and training systems to the digital age. This digital transformation must be inclusive of learners with disabilities, ensuring that technological advancements do not widen existing gaps.

In addressing discrimination against autistic individuals, the European Parliament resolution of 4 October 2023 on harmonising the rights of autistic persons (2023/2728(RSP)) also calls for the creation of inclusive schools that serve as models of innovative and inclusive teaching across the EU.

ADDRESSING PERSISTENT BARRIERS TO EDUCATION IN A FAST-EVOLVING CONTEXT: AN IMPERATIVE

In recent years, education systems across the European Union have undergone systemic reforms aimed at transitioning toward more inclusive models. Despite these efforts, many educational environments still fail to provide the necessary adjustments, resulting in systemic discrimination and exclusion. Evidence consistently shows that neurodivergent students, including autistic learners, face disproportionate barriers to accessing education at all levels, with long-term consequences for their life outcomes.

While progress has been made, segregated education remains prevalent in several Member States, particularly at the lower secondary level, where approximately 2% of EU learners—primarily those with disabilities—are placed in segregated settings. Countries such as Belgium, the Netherlands, Germany, and Denmark report segregation rates significantly above the EU average.

According to the Council of Europe, in 2020, nearly 80% of autistic children lacked access to mainstream education. Yet, there is no comprehensive EU-wide action plan to address these inequalities. Alarmingly, some Member States have invoked Article 24 of the UN Convention on the Rights of Persons with Disabilities (CRPD) to justify funding cuts to special schools without implementing adequate legislation or resources to support inclusive mainstream education.

Autistic learners have distinct educational needs that require specialized understanding and tailored approaches, regardless of their age or level of support. Segregated schooling and insufficient teacher training pose risks of physical and psychological harm. In countries affected by austerity measures—such as Greece and Portugal—inclusive education reforms have stalled, further disadvantaging neurodivergent learners.

While digital education offers promising opportunities, it also presents challenges. The COVID-19 pandemic exposed significant accessibility gaps, as many online platforms lacked accommodations for autistic students. This highlights the urgent need to ensure that digital education strategies, including the EU Digital Education Action Plan (2021–2027), are fully inclusive.

The increasing use of artificial intelligence (AI) in education—for student allocation, assessment, or behavior monitoring—raises concerns about systemic bias and discrimination. Without safeguards, AI systems risk amplifying existing inequalities, limiting educational access, and undermining social inclusion for autistic learners. These risks extend beyond education into employment and community participation, directly contravening EU anti-discrimination laws and obligations under the CRPD.

Despite legislative improvements in many Member States, neurodivergent learners continue to struggle in inclusive settings due to a lack of understanding of their individual needs and insufficiently adapted support. Rigid curricula and inflexible infrastructure often prevent these learners from leveraging their strengths. A range of support arrangements—including individualized education plans, assistive technologies, and inclusive teaching practices—must be implemented to improve outcomes.

In its March 2025 Concluding Observations[15], the CRPD Committee expressed concern over the continued segregation of children with disabilities in education across the EU. It cited barriers such as untrained staff, inaccessible infrastructure, inflexible curricula, and persistent prejudice, and highlighted the risks of discrimination posed by AI under current EU regulations.

The Committee explicitly recommended that the EU:

- Support Member States in ensuring inclusive, quality education at all levels.
- Safeguard against discrimination in AI-driven educational tools, in line with the 2022 EC Ethical Guidelines.
- Guarantee accessibility in the Digital Education Action Plan.

[15] United Nations Committee on the Rights of Persons with Disabilities. (2025). *Concluding observations on the combined second and third periodic reports of the European Union* (CRPD/C/EU/CO/2-3). Geneva: United Nations. Retrieved from https://www.ohchr.org/en/meeting-summaries/2025/03/committee-rights-persons-disabilities-concludes-thirty-second-session-and

Given its supporting competence in education, the EU should actively promote cooperation among Member States and reinforce their efforts by:

- Coordinating relevant education policies across Member States.
- Issuing recommendations through mechanisms such as the European Semester to improve access for neurodivergent learners.
- Promoting best practices and mutual learning to address the needs of neurodivergent students.
- Establishing common training standards for professionals working with autistic learners across sectors.
- Supporting research and innovation to improve inclusion and quality of life, including through digital learning.
- Combating prejudice and stereotypes through awareness-raising initiatives.
- Facilitating structured dialogue with neurodivergent learners, their families, and representative NGOs.

As the EU Agency for Special Needs and Inclusive Education emphasizes, the development of flexible funding mechanisms and robust monitoring frameworks is essential to ensure that all learners receive adequate support. These systems must be designed to evaluate and improve the effectiveness of inclusive education provisions across the Union.

EMPOWER AND INCLUSIVE EDUCATION: PROMISE, EVIDENCE, AND NEXT STEPS

Research and classroom experience consistently show that children thrive when provided with clear structure, targeted support, and repeated opportunities to practice essential skills. Tools such as visual supports, scaffolded tasks, and individualized teaching approaches have proven effective in enhancing learning outcomes. Yet, despite this evidence, many schools still lack the resources and tools needed to implement these strategies consistently. The COVID-19 pandemic further exposed and intensified these gaps, leaving many children without access to tailored educational interventions during a critical time.

The EMPOWER platform was developed as a practical response to these challenges. It integrates serious games with evidence-based psychological methods to help children train core executive functions—such as attention, working memory, and cognitive flexibility—in an engaging and accessible way. Simultaneously, it provides teachers and parents with meaningful data on each child's progress, enabling more responsive and personalized support.

EMPOWER aims to improve the educational experiences of neurodivergent children by focusing on the development of executive functions and emotional regulation—skills that are fundamental to learning, social integration, and overall well-being. The platform serves both as an intervention and assessment tool, offering scientifically grounded, playful activities that can be embedded directly into classroom practice.

What sets EMPOWER apart is its interdisciplinary and participatory approach. The project brings together universities, schools, psychologists, educators, parents, and NGOs from across Europe, ensuring that scientific expertise is combined with the lived experiences of children and families. This collaboration enables EMPOWER to serve as a model for how technological innovation can be meaningfully integrated into inclusive education, bridging the gap between psychological theory and everyday teaching.

The development and testing of the EMPOWER platform demonstrate its strong potential to positively influence both student engagement and teaching practices. During study sessions, children interacted enthusiastically with the platform's serious games, often displaying levels of focus, persistence, and motivation that exceeded typical classroom expectations.

Teachers consistently reported that EMPOWER successfully engaged students who are usually difficult to reach and supported improvements in task completion and emotional regulation. As one teacher noted, "I was surprised to see how motivated the students were to continue playing." This feedback reflects a broader trend: EMPOWER is transforming the training of executive functions and emotional skills into experiences that are enjoyable for children and genuinely useful for educators.

Quantitative data further support these observations. Over two-thirds of participating teachers indicated that EMPOWER enhanced their teaching by providing structured, flexible activities tailored to the needs of children with neurodevelopmental differences. The platform's built-in performance tracking offered teachers clear insights into each child's strengths and challenges, enabling more responsive and individualized instruction. Students demonstrated greater persistence, improved accuracy on cognitive tasks, and increased time-on-task compared to traditional activities. The platform's two-part structure—assessment followed by intervention—proved especially effective, allowing educators to seamlessly transition from identifying needs to addressing them.

To assess student perceptions, participants completed self-efficacy questionnaires before and after each game, and a usability questionnaire after the final session. Results indicated a generally positive experience: most children anticipated enjoying the games and confirmed this post-play. They also reported feeling confident and motivated, with minimal changes in perception before and after gameplay. While most children found the games easy, a few noted moments of confusion or difficulty, suggesting areas for refinement. It is important to interpret these findings with caution, as responses may have been influenced by social desirability bias or misunderstandings of the questions.

In a focused usability study involving seven Romanian children, responses to a 14-item questionnaire revealed strong engagement and enjoyment. Most participants expressed a desire to continue playing and felt confident while doing so. However, some reported needing adult assistance or encountering unclear tasks, highlighting opportunities to improve accessibility and clarity.

Feedback from nine Romanian teachers further reinforced the platform's value. All expressed a willingness to implement EMPOWER in their schools, with eight out of nine highlighting its inclusive environment as a key motivator. Teachers appreciated the platform's ability to support diverse learners and recognized its potential to enhance classroom dynamics and learning outcomes.

All nine teachers expressed a willingness to implement the EMPOWER platform in their schools. Eight out of nine highlighted the inclusive environment promoted by the platform as a motivating factor. Seven teachers also mentioned the potential reputational benefits for their schools. Additional motivations included:

- "It could support classroom activities."
- "It will be a support in the assessment process for personalized intervention plans."
- "It will diversify intervention methods at the school level."
- "It will help in developing adaptive behaviors in children."
- "The platform could improve students' attention spans and tolerance for frustration."

When asked about potential barriers to implementation, the teachers cited the following concerns:

- "Teachers need minimal initial training to use the technology effectively."
- "Some EMPOWER activities may be too challenging for students with autism who also have comorbid disorders or disabilities."

Despite these concerns, all teachers confirmed their interest in using the platform in the future.

Regarding technical and environmental considerations, all respondents indicated confidence in their ability to manage the games and devices, as well as in handling environmental factors such as lighting. However, several more significant challenges were noted:

- "Students who exhibit aggressive behavior may struggle to use the platform safely."
- "The child's psycho-emotional state may affect their engagement at different times of the day."
- "The cost of the platform may be too high for the school," with the hope that access will be provided free of charge.

In terms of implementation logistics, teachers indicated that the platform could be integrated into both class-time and recreational activities. Responses regarding optimal session length varied, with estimates ranging from 10 to 45 minutes per session. Opinions on frequency of use also differed: while some teachers recommended a maximum of 1–2 days per week, others supported daily use.

Each of the respondents agreed that teachers should be responsible for facilitating student interaction with the platform.

When considering the role of school administration, teachers suggested the following responsibilities:

- "Integrating the games into subject planning."
- "Providing the necessary logistical and material resources."
- "Encouraging teachers to adopt EMPOWER games."
- "Allocating space and integrating the platform into the school curriculum."
- "Supplying compatible equipment."

The evaluation of the EMPOWER platform through clinical trial data offers valuable insights into its potential and limitations. The hypotheses tested yielded mixed results, with Executive Function (EF) Improvement being the area where *most gains were* observed in planning and working memory, indicating that targeted cognitive components can be positively influenced through the platform. However, broader EF domains did not show significant change, suggesting the need for more comprehensive or differentiated interventions.

The EMPOWER findings, however, also highlight the importance of avoiding overreliance on technological solutions alone. While EMPOWER shows promise in specific cognitive domains, its broader impact on emotional and academic outcomes remains limited. Future iterations should integrate more robust emotional and behavioral supports and ensure alignment with pedagogical goals.

From a policy perspective, these results suggest that digital tools like EMPOWER should be embedded within a broader ecosystem of support—including trained educators, individualized learning plans, and family engagement. Investments should focus not only on technological innovation but also on the human and relational dimensions of inclusive education.

Therefore, while EMPOWER has already demonstrated its potential, its development is ongoing. Future directions include expanding the platform to support a wider range of learners—not only neurodivergent children, but also adolescents, students with specific learning difficulties, and those facing socio-emotional challenges. Executive functions and emotional skills are critical for all students and adapting EMPOWER to diverse needs will broaden its impact.

Its success will depend not only on technological innovation, but on how schools, communities, and policymakers embed such tools into everyday practice. This means creating supportive environments where digital platforms are not seen as effective resources for inclusive teaching and learning.

Fostering a supportive ecosystem for inclusive education and digital learning for neurodivergent students

BUILDING KNOWLEDGE AND UNDERSTANDING IS ESSENTIAL FOR REAL INCLUSION

EMPOWER does not exist in a vacuum; it is therefore essential to advance the conditions to realise the right to education for all neurodivergent students by promoting an inclusive education system that accommodates a diversity of profiles. The long-term impact and sustainability of the EMPOWER platform depend on collaborative engagement across all levels of the education ecosystem.

The EMPOWER platform, while promising, cannot single-handedly address systemic inequities in education. Overreliance on technology risks neglecting the critical roles of pedagogy, relationships, institutional culture, and political commitment in driving meaningful change. Without genuine involvement of neurodivergent learners and their families, inclusion efforts risk becoming tokenistic or assimilationist—prioritizing conformity to neurotypical norms over authentic support. Aside from digital tools, it is critical to equip teachers with relevant training in evidence-based methods for autistic students and individualized learning approaches.

Effective inclusion requires that teachers understand the way neurodivergent students think and learn across the full spectrum of ability and gender, before even considering any specific educational approach. It is crucial to put the emphasis on individualisation to ensure that the specific needs of each autistic learner are met.

Teacher training should encompass a diverse range of approaches, recognizing that no single method suits all learners and that flexibility is key to addressing varied profiles and needs. It is essential to integrate practical, evidence-based strategies to support both curriculum access and social inclusion.

INCLUSION IS A SHARED RESPONSIBILITY

By fostering active cooperation among schools, local authorities, professional associations, families, NGOs, and government, EMPOWER can, however, continue to support neurodivergent learners well into the future. Sustainability will stem from a shared commitment:

- Schools providing leadership and space for integration.
- Local councils ensure equitable access to infrastructure and resources.
- Professional associations are embedding recognition of digital tools into teaching standards.
- Families reinforcing skills at home and engaging with progress.
- Governments are creating supportive policy frameworks and funding mechanisms.

Therefore, the successful implementation and long-term impact of digital tools such as the EMPOWER platform depend on the coordinated efforts of multiple stakeholders across the education system. **Each actor plays a vital role in creating an environment where each student can thrive.**

Schools and Teachers are central to this transformation. Teachers, who often know their students best—aside from their families—are instrumental in bringing platforms and digital tools like EMPOWER to life. Schools serve as the primary setting where these tools can make a tangible difference. For sustainability, digital tools must be embedded into the teaching and learning curriculum, not treated as add-ons. This includes integrating executive function and emotional skills training into regular classroom activities, using EMPOWER's games and data to personalize instruction. When teachers view the platform as a support for their existing practices—helping students focus, plan, and regulate emotions—its long-term adoption becomes more likely. They must be adequately supported to implement digital learning.

School Leaders therefore, play a pivotal role. Leadership that encourages innovation, supports professional development, and prioritizes inclusion fosters a culture where digital tools are embraced. Peer learning among teachers is equally important. When educators have time and space to share experiences, adapt tools to their students, and reflect on outcomes, knowledge spreads and confidence grows. Research confirms that collaborative professional learning is a key driver of sustained innovation in schools[16].

Local Authorities and Councils are essential partners in ensuring equitable access to infrastructure and resources. Many schools, particularly in rural or under-resourced areas, lack the devices, connectivity, and technical support needed to implement platforms like EMPOWER effectively. Local authorities can bridge this gap by investing in infrastructure, sponsoring device acquisition, and ensuring reliable internet access. Beyond equipment, they can foster networks of practice—facilitating joint pilots, organizing training workshops, and convening forums for educators, psychologists, and IT professionals to exchange ideas and solutions.

Professional associations and Training institutions have a critical role in embedding digital tools into the professional culture of teaching. By integrating executive function and socio-emotional learning into teacher training and continuing professional development, they can normalize the use of platforms like EMPOWER. These organizations also provide teachers with a collective voice to advocate for recognition of digital interventions within professional standards. Universities can further support sustainability by introducing future educators to EMPOWER during initial teacher education, reducing the need for retraining and embedding inclusive digital practices from the outset.

Parents, families, and NGOs representing the final beneficiaries are key to reinforcing learning beyond the classroom. Families can support the development of executive function skills at home, using EMPOWER's progress-tracking features to stay informed and engaged. Parent associations and NGOs can advocate for resources, raise awareness, and

[16] Levine, T. H., & Marcus, A. S. (2010). How the structure and focus of teachers' collaborative activities facilitate and constrain teacher learning. Teaching and teacher education, 26(3), 389-398. https://doi.org/10.1016/j.tate.2009.03.001

ensure that the perspectives of neurodivergent children and their families are central to implementation. Co-creation with end-users—especially those representing neurodivergent communities—enhances acceptance, relevance, and sustainability.

Governments and Policymakers have the authority to scale up innovation and foster systemic change. By formally recognizing executive function and socio-emotional learning as priorities in inclusive education strategies, ministries can integrate validated digital tools into national curricula and fund large-scale implementation. Clear policies on data privacy, ethical use, and digital safety are essential to build trust among educators and families. Policymakers can further support sustainability by funding longitudinal research, facilitating partnerships between schools, universities, and technology developers, and ensuring that teacher workload is considered when introducing new tools.

Finally, building a **culture of continuous improvement** is essential. EMPOWER should be viewed not as a static product but as a dynamic educational system. Feedback loops involving teachers, councils, researchers, and families must be established and respected. This ongoing reflection and adaptation will ensure that the platform evolves in response to users' needs and remains relevant, effective, and inclusive.

How to support innovation and neurodivergent-inclusive teaching and learning in the education system

Promoting systemic change in education is essential to establishing a framework that genuinely supports neurodivergent-inclusive teaching and learning. Such an approach recognizes and values the diverse cognitive profiles of students, enabling neurodivergent learners to reach their full potential in safe, respectful, and empowering environments. By embedding inclusive practices into the core of educational systems, institutions can foster learning spaces that are not only ethical and equitable but also enriched by the unique perspectives and experiences of all students. This transformation empowers individuals to thrive both academically and personally, cultivates institutional cultures that celebrate diversity and individuality, and advances educational justice by ensuring that every student can succeed on their own terms. Examples of systemic change include revising curricula to incorporate flexible learning pathways, training educators in neurodiversity awareness and inclusive pedagogy, implementing universal design for learning (UDL) principles, creating sensory-friendly classrooms, and establishing policies that protect neurodivergent students from discrimination. Additionally, leveraging innovation and digital learning tools—such as the EMPOWER platform and other types of assistive educational technologies, as well as ethical AI-driven personalization—can further enhance inclusivity by tailoring content delivery to diverse learning needs and enabling more flexible, student-centered approaches to education.

PROMOTE BLENDED LEARNING APPROACHES IN EDUCATION

Digital innovation should complement, not replace, traditional teaching methods. For neurodivergent learners, blended learning offers a flexible and inclusive framework that can be tailored to diverse needs and learning styles.

Blended learning refers to the purposeful integration of online and face-to-face instructional methods to enhance meaningful engagement between students, educators, and learning resources. This approach is not intended to replace traditional teaching, but rather to complement it. When implemented effectively, blended learning can significantly

improve educational outcomes across diverse learner populations.

The success of blended learning is contingent upon the quality of its design and implementation. Thoughtfully structured blended learning environments offer a range of pedagogical advantages, particularly for neurodivergent learners. These students often benefit from flexible, personalized learning pathways that accommodate their individual strengths, challenges, and preferences.

Key benefits of blended learning include:

- Self-paced, independent learning through digital platforms, enabling students to revisit content and progress at a pace that suits their needs.
- Ongoing access to teacher support, ensuring learners benefit from the expertise, guidance, and relational aspects of in-person instruction.
- Flexible and creative course design, allowing educators to differentiate instruction and tailor content delivery in ways that may not be feasible in traditional classroom settings.
- More targeted teacher-student interaction, as teachers can spend less time on whole-class instruction and more time working individually or in small groups with students who require additional support. This enables focused assistance with specific concepts, skills, or learning challenges.

Blended learning—also referred to as hybrid learning— can be considered as a model that combines the strengths of traditional schooling with the advantages of online learning. This approach supports personalized and differentiated instruction, enabling educators to meet the diverse needs of learners more effectively.

Policy frameworks must prioritize the development of blended learning environments that are inclusive by design, ensuring that all students—regardless of ability—have the opportunity to thrive in equitable, supportive, and technologically enriched settings.

By weaving digital tools naturally into daily lessons, educators can create environments that are:

- Multisensory: neurodivergent students often benefit from learning experiences that engage multiple senses. Serious games, immersive simulations, and interactive media can reinforce concepts through visual, auditory, and kinesthetic channels.
- Adaptive and personalized: Tools like adaptive learning platforms can adjust content difficulty, pacing, and presentation style based on individual performance and preferences. This helps reduce frustration and increase engagement.
- Predictable and structured: Many neurodivergent learners thrive with clear routines and expectations. Digital tools can offer consistent interfaces and structured pathways that reduce cognitive load and anxiety.
- Low-stimulation options: For students sensitive to sensory input, digital environments can be customized to minimize distractions—such as reducing animations, adjusting color schemes, or using simplified layouts.
- Self-paced and replayable: Blended learning allows students to revisit materials as needed, supporting memory retention and reducing pressure. Recorded lessons, interactive tutorials, and gamified quizzes can be accessed multiple times.
- Inclusive communication channels: Digital platforms can support alternative forms of expression—such as typing instead of speaking, using visual icons, or collaborative tools that allow asynchronous participation.

Key benefits identified include[17]:

- Enhanced information delivery through diverse digital sources, improving accessibility and comprehension.
- Increased motivation, confidence, and self-esteem, fostering greater learner independence.
- Development of tailored educational activities specifically designed for special education contexts.
- Improved collaboration between general education teachers, special educators, and service providers.
- Promotion of social inclusion, enabling students to participate more fully in classroom and school life.
- Empowerment of individuals with disabilities, creating conditions that support self-advocacy and challenge negative perceptions of disability.
- Facilitation of meaningful interaction with the learning environment, helping students reach their full potential.

Blended learning also allows educators to reduce time spent on whole-class instruction, enabling more focused, individualized support for students. This shift creates space for targeted interventions, small-group instruction, and personalized assistance with specific concepts or learning challenges.

Importantly, the use of digital tools in blended learning environments helps students with develop technological literacy and confidence, equipping them with essential skills for participation in an increasingly digitalised society and future employment.

[17] Zavaraki, Esmaeil & Schneider, Daniel. (2019). Blended Learning Approach for Students with Special Educational Needs: A Systematic Review. Journal of Education & Social Policy. 6. 10.30845/jesp.v6n3p12.

Despite its promise, blended learning also presents challenges, particularly in access to technology, especially in developing regions, and in the backgrounds and preparedness of both students and educators. Effective interdisciplinary collaboration is also identified as a critical factor for success.

SUPPORT AND DEVELOP A ROBUST INFRASTRUCTURE FOR INNOVATION IN EDUCATION

The successful implementation of digital platforms such as EMPOWER depends on robust infrastructure, including reliable devices, stable internet connectivity, and ongoing technical support.

Without these foundational elements, even the most innovative educational technologies cannot be effectively deployed or sustained.

Policymakers and local authorities must prioritize equitable access to digital learning tools across all educational settings. This includes ensuring that rural, remote, and under-resourced schools are not left behind in the digital transformation. Investment should cover:

- Provision of devices (e.g., tablets, laptops) for students and educators.
- High-speed internet access in all school environments.
- Technical support and maintenance services to ensure smooth operation and troubleshooting.
- Training for educators and school staff to build digital competence and confidence in using new tools.

Equity in access is not only a matter of infrastructure—it is a matter of educational justice. Without targeted investment, existing disparities may widen, particularly for students with special educational needs (SEN) and those in marginalized communities. A coordinated approach involving national and regional governments, educational institutions, and

technology providers is essential to ensure that every learner can benefit from inclusive digital education.

STRENGTHEN TEACHER PREPARATION AND PROFESSIONAL DEVELOPMENT

Teachers require more than basic operational knowledge of digital platforms—they need comprehensive training that integrates pedagogical expertise, neurodiversity awareness, and practical application. Effective professional development should combine knowledge of the various conditions, executive functioning, and socio-emotional learning with hands-on opportunities to apply inclusive teaching strategies in both digital and face-to-face settings.

For neurodivergent learners, particularly those requiring intensive educational support, the quality of instruction is directly impacted by the competence and confidence of educators. The OECD has consistently emphasized the importance of ongoing professional development to equip teachers and school leaders with the skills necessary to engage students with special educational needs (SEN) effectively. According to the 2018 OECD Teaching and Learning International Survey (TALIS), teachers reported a high demand for training[18] in both advanced ICT skills and inclusive teaching methods—needs that became even more evident during the COVID-19 pandemic.

A recent study conducted in Croatia, the Republic of North Macedonia, and Poland[19] revealed that over 20% of teachers working with autistic students had received no formal training in autism during their initial education.

Furthermore, 93% of teachers—across both mainstream and special schools—expressed a strong need for further education on autism, particularly in areas such as theoretical understanding, practical strategies, and access to mentorship or supervision. Emphasis should be placed on basic as well as updating specialist knowledge and refreshing practice

[18] OECD (2019), TALIS 2018 Results (Volume I).
[19] Natalija Lisak Šegota, I. Lessner Ličtiaková, J. Stošić, J. Kossewska, J. Troshanska, A. Petkovska Nikolovska, T. Cierpiałowska & D. Preece (2022) Teacher education and confidence regarding autism of specialist primary school teachers, European Journal of Special Needs Education, 37:1, 14- 27,

with respect to teachers' experience, enhancing their competence and confidence. Training in autism and other conditions should be provided on an ongoing basis so that all teachers are empowered to work with learners on the spectrum.

To truly embed blended learning as an inclusive practice, educators must also be empowered to use digital tools not sporadically, but as part of their daily teaching repertoire. This requires systemic investment in pedagogy inclusive of neurodivergent learners, supported by school cultures that value flexibility, personalization, and inclusive innovation. Policymakers should ensure that teacher education programs and continuing professional development initiatives are aligned with the evolving needs of diverse learners and the realities of modern classrooms.

Teachers should be supported with online and in-person materials that help them integrate digital tools smoothly into everyday practice. Guidance on digital safety and ethics must also be included to ensure that both teachers and students use new technologies responsibly.

Sustainability depends on teachers feeling confident and supported. Opportunities for self-reflection, peer learning, and continuous training will help them embed tools like EMPOWER into their daily routines and maintain their use well beyond the scope of a project.

KEEP THE LEARNER AT THE CENTER

Every child learns differently, and education systems must reflect this diversity by adopting a learner-centred approach. Policies and school practices should promote individualization, enabling teachers to tailor learning pathways, implement alternative communication systems, and adapt digital resources to meet each student's unique strengths and needs. Where such approaches are already in place, they must be regularly reviewed to ensure their effectiveness in supporting neurodivergent learners to reach their full potential, enhance their well-being, and improve their quality of life.

A key component of this approach is the development of an Individualised Education Plan (IEP) for each neurodivergent learner. These plans should be based on a comprehensive assessment of the learner's support needs, strengths, interests, and future aspirations. The IEP must include ability-appropriate learning objectives with achievable timeframes and be designed in close consultation with learners and their families, using augmentative and alternative communication methods where necessary. Objectives should aim to positively impact the learner's participation in education, family life, and the broader community.

Adequate support for autistic learners in education settings entails collaboration and communication between parents and professionals. For example, research in the early 2000s highlighted how beneficial is the teacher-parent collaboration is for the academic and social progress of autistic individuals[20]. However, there is limited data on how sufficient and regular this cooperative approach is applied in EU Member States.

Setting up effective and active parental forums from early education onwards is a good way to address problems and foster parental participation in the educational process. This will encourage and empower parents to speak up and be adequately informed and involved. Streamlining methods of communication between departments and between professionals, including at transition times, to keep parents continually informed on the

[20] Azad, G., & Mandell, D. S. (2016). Concerns of parents and teachers of children with autism in elementary school. *Autism*, *20*(4), 435-441.

progress of the autistic learner's development is also a vital step. The close involvement of parents in the education of the learner is a determining success factor.

Overall, schools should adopt a multidisciplinary approach, ensuring regular coordination between educational staff and health or habilitation professionals (e.g., speech and language therapists). This collaboration is essential for developing skills beyond the academic curriculum, such as independent living, social interaction, and emotional understanding.

Additionally, the establishment of specialised learning support teams is recommended to assist autistic learners with challenges and facilitate constructive dialogue with educational institutions. Effective communication and collaboration with parents must be prioritized, including the creation of active parental forums from early education onwards. These forums empower parents to participate meaningfully in their child's education and ensure they are well-informed and supported.

Communication between departments and professionals must be streamlined, particularly during transition periods, to keep families continuously updated on the learner's progress. Parents should also have access to community-based support services, resources, and training to help maintain their child's development within the family setting.

Finally, the establishment of community monitoring bodies is essential to ensure that support for disabled learners is consistently upheld. These watchdogs must be empowered to investigate, mediate, and enforce accountability, including the authority to take action against educational staff who fail to meet their professional obligations. While regulatory structures vary across the EU, existing mechanisms are often insufficient. A robust, well-resourced oversight body is needed to safeguard the rights and educational outcomes of neurodivergent learners.

PROMOTE FURTHER RESEARCH ON INNOVATIVE EDUCATION TOOLS WITH STRONG STAKEHOLDERS' INVOLVEMENT

Overall, the value of digital tools in special and inclusive education must be further explored with the active participation of neurodivergent learners, their families, and teachers. Only by addressing their concerns can the technology remain relevant and responsive to real educational needs. Participatory research—particularly through structured consultation with the representatives of the neurodivergent community—has proven effective in aligning research objectives with lived experiences. Involving neurodivergent individuals at every stage of the research process, from question formulation to dissemination, ensures that studies address meaningful priorities, improve accessibility, and foster trust. Such collaboration also enhances the clarity and inclusiveness of research tools and outputs, supports the development of enabling environments for data collection, and promotes broader engagement with scientific findings.

Policy frameworks should therefore fund and encourage co-designed research models that empower neurodivergent voices to ensure the relevance of digital innovations and strengthen inclusive education practices. It is also important to build capacity for meaningful inclusion in research, for example, by supporting mentorship programs led jointly by neurodivergent advocacy experts and AI professionals. Expanding research into Augmentative and Alternative Communication (AAC) technologies is also essential to ensure that non-speaking autistic individuals have equitable access to tools that support genuine participation and decision-making.

ENSURE COMMUNITY OVERSIGHT AND STRONG REGULATORY AND ETHICAL SAFEGUARDS IN ARTIFICIAL INTELLIGENCE

In a fast-evolving context, it is important to future-proof and set strong regulations for safeguarding, as well as enforcement mechanisms for artificial intelligence (AI) technologies in the field of education. As previously highlighted, future research in digital solutions should center on the actual needs of neurodivergent people, as it is essential that research reflects the needs of the community. This calls for focusing on approaches that are neuro-affirmative and prioritize wellbeing, autonomy, and inclusion. In line with the objectives of EMPOWER, the goal should not be to normalize or cure disabled individuals, but rather to support their unique needs and strengths to thrive. Resources should be directed toward further developing AI tools that support communication, self-determination, and quality of life.[21] AI systems must be designed and deployed with a clear commitment to equity and inclusion. They should not reinforce existing societal biases or perpetuate discriminatory patterns that limit access to education, employment, healthcare, or public services. These risks often stem from flawed or incomplete datasets, biased assumptions, or a lack of representation in the design and testing process.[22]

It is also essential to establish robust Data protection standards and clear and accessible informed consent procedures for AI systems that collect or process data from autistic individuals. Special safeguards should be in place for biological, genetic, and behavioral data, particularly when involving autistic children and vulnerable adults. Strong data governance frameworks are also critical. There is a need for transparent and accountable guidelines for the use and sharing of personal data across research initiatives and international databases. These should include clear opt-out options and regular compliance audits to ensure ethical data management.

[21] Policy Brief AI and the Rights of Autistic People (AIRA) Ensuring Meaningful Inclusion and Protection of Autistic People in the Age of AI (2025)
[22] Disability perspective on Regulating Artificial Intelligence - European Disability Forum, 2021

Conclusion

The EMPOWER platform demonstrates how digital innovation can support inclusive education, particularly through its engaging design and targeted support for executive function development. Its ability to generate meaningful data and foster motivation among neurodivergent learners highlights its value as part of a broader educational toolkit.

However, technology alone cannot address the full complexity of educational inclusion. To achieve lasting impact, digital tools like EMPOWER must be embedded within learner-centered systems that prioritize individual needs, lived experiences, and active participation. This includes equipping educators with evidence-based training, fostering collaborative relationships with families, and ensuring that institutional cultures embrace diversity as a strength.

When thoughtfully integrated into inclusive pedagogical frameworks, platforms like EMPOWER can help create environments where all learners are supported to thrive. The learner must remain at the centre of every decision, guiding both technological development and educational practice.

Building a supportive ecosystem for inclusive education and digital learning is a shared responsibility—one that requires coordinated action across governments, institutions, educators, researchers, and communities.

Research conducted on the EMPOWER platform to date highlights that its long-term success depends not only on the quality of its technical design or ease of implementation in schools, but also on the broader educational and policy frameworks that support its integration. Pilot studies have demonstrated that EMPOWER is feasible, engaging, and promising, yet its full potential will only be realized if embedded within inclusive education strategies that are geared towards adequately supporting neurodiverse learners.

To foster meaningful inclusion, it is essential to equip teachers – and to the extent possible, the wider community - with a deep understanding of the neurodivergent thinking and learning across the full spectrum of ability and gender. Policy frameworks should support the inclusion of such training in both initial teacher education and ongoing professional development.

Teacher preparation is, therefore, a critical area. Findings from the pilot phase also show that EMPOWER is most effective when teachers are confident in its use and able to integrate it into their broader pedagogical practices. Structured training should therefore go beyond technical instruction to include a deep understanding of the needs of neurodivergent learners, as well as executive functioning and emotion regulation.

Achieving this also requires that policymakers ensure equitable access to infrastructure. Effective platforms like EMPOWER cannot thrive if limited to well-resourced schools. Ministries of education and local authorities must invest in reliable devices, internet connectivity, and technical support, while ensuring fair distribution of resources across urban, rural, and underserved areas.

Policymakers should strengthen collaboration between schools and their wider communities. Learning extends beyond the classroom, and families play a vital role in reinforcing skills developed through EMPOWER. The platform's progress-tracking features facilitate parental engagement, enabling targeted support at home. Parent associations and NGOs can amplify this impact by raising awareness and ensuring that family perspectives inform implementation. Policies should therefore fund and encourage initiatives that connect schools, families, and community actors, building a network of support that enhances educational outcomes.

Equally important is the issue of trust. For platforms like EMPOWER to be widely adopted, parents and educators must be confident that children's data are handled responsibly. National frameworks must establish clear standards for data privacy, informed consent, and ethical use, particularly when dealing with personal and physiological data. Alongside regulation, schools should receive practical guidance on digital safety, ensuring that innovation does not compromise children's rights or wellbeing. Transparent and robust ethical frameworks are essential to building the trust required for widespread adoption.

Sustainability also depends on a culture of continuous improvement. Many digital interventions fail to progress beyond the pilot stage due to a lack of long-term evaluation and validation. EMPOWER has already advanced through randomized clinical trials, but further multi-country studies are needed to assess its adaptability across diverse contexts, languages, and school systems. Policymakers can play a central role by funding and supporting longitudinal research, ensuring that decisions are grounded in robust evidence. These evaluations should be part of a broader strategy to embed validated digital tools into national curricula and make them accessible to all learners.

Finally, effective policy must establish structured feedback loops among all stakeholders. Teachers, parents, researchers, and developers each bring valuable insights that can refine and strengthen the platform, as well as any future development in digital learning. Councils and ministries can facilitate this process by creating and supporting platforms for co-design, dialogue, and knowledge exchange, both nationally and across Europe.