Breaking barriers: voices of emerging scholars on disability

Online PhD conference at ELTE Bárczi Gusztáv Faculty of Special Needs Education

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Abstracts

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In 2025, ELTE Bárczi Gusztáv Faculty of Special Needs Education is celebrating the 125th anniversary of special needs education teacher training in Hungary. The predecessor institution of the faculty was the first of its kind in the country, and ELTE Bárczi is eversince the leading scientific and teacher training institution of special education in Hungarian higher education.

We strongly believe that joining our scientific forces can promote a more equitable society, in which individuals with disabilities may reach their full potential. To this end, institutions of higher education need to facilitate and support the engagement of young researchers to carry out disability-related research projects.

With this goal in mind, ELTE Bárczi Gusztáv Faculty of Special Needs Education organised an online doctoral conference, with the participation of 12 doctoral students, coming from Europe and Argentina. This booklet contains all abstracts of the conference presentations.

The Organising committee:

Ms habil. Dr. Andrea Perlusz PhD (Vice Dean for Academic Affairs and Strategy)

Ms Judit Gombás PhD (associate professor)

Ms Gréta Kövecses (Erasmus+ coordinator)

Scientific committee:

Ms Judit Gombás PhD (associate professor)

Mr Zoltán Lénárt PhD (adjunct professor)

Mr Antal Mór Szűcs PhD (associate professor)

Inclusive Museums Pathways: Participatory Approaches for Accessible XR Technologies

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Supervisor: **Catia Giaconi**

Abstract

Background: The United Nations Convention on the Rights of Persons with Disabilities (2006) affirms the right to participation in education and cultural life for all, including people with disabilities. In this context, emerging eXtended Reality (XR) technologies are offering novel possibilities to foster inclusion in learning and cultural environments. However, significant accessibility challenges are posed when reflecting on the integration of such technologies in educational and cultural contexts.

Method: This study explores the inclusive potential of XR by presenting a participatory research concerning the co-design of an XR installation inspired by Vasilij Kandinskij's painting Succession (1935) to promote cultural participation for people with disabilities. The installation was developed in compliance with Universal Design principles and User Experience was assessed through a Mixed-Methods approach.

Findings: The XR-based interface enabled users to engage with the artwork through a combination of sensory inputs, supporting accessibility and multimodal learning. Early UX evaluations highlighted promising outcomes for the engagement of people with physical, sensory and intellectual disabilities, supporting autonomy and authenticity in the experience of cultural heritage.

Conclusion: This research contributes to understanding how XR can enhance inclusion in educational and cultural settings. In this sense, the adoption of participatory approaches can foster social impact and empowerment of people with disabilities, promoting their direct involvement in design processes. By adopting Special Pedagogy principles and inclusive design practices, this research offers meaningful insights on strategies and solutions for equitable access to arts & culture.

Keywords: special pedagogy; inclusive education; museum accessibility; extended reality

European Working Environments and individuals with visual impairments: a comparative study

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Abstract

Background: Promoting the employment and active participation of individuals with visual impairments in this aspect of life is essential. Their involvement in the workforce not only guarantees a dignified standard of living and financial autonomy but also provides opportunities to integrate into social groups, develop social skills, and foster a sense of belonging. However, research has shown that although progress has been made, significant challenges remain to achieving equal opportunities and full access to the labor market for people with visual impairments.

This study aims to investigate key aspects of employment for individuals with visual impairments, focusing specifically on job satisfaction, employment security, and experiences of workplace discrimination in a variety of European contexts.

Method: Eighty people with visual impairments around Europe working either in the public or the private sector participated in the present study. The research conducted was a comparative study in which semi-structured interviews were used focusing mainly on education, services related to the transition of individuals with visual impairments from education to employment, mobility and accessibility as well as emotional experiences and interpersonal relationships developed in the workplace. In addition, the Employee Satisfaction Survey was applied to explore aspects primarily related to employee satisfaction with working conditions.

Findings: People with visual impairments are likely to face reduced employment opportunities and often work under flexible contracts. They tend to have fewer years of employment and experience diminished job responsibilities and they stated that they do not receive equal treatment from their employers.

Conclusion: Policymakers should take a multifaceted approach that includes legal protections, proactive incentives, awareness, infrastructure support, and enforcement to promote equity for individuals with visual impairments in workplaces.

Keywords: visual impairments, labour market, equity, discrimination employment

University Programme in Labor Training for people with intellectual disabilities

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Abstract

Nowadays, the right of access to education that persons with intellectual disabilities have is indisputable. This right, promulgated by the United Nations International Convention on the Rights of Persons with Disabilities, has become law in Argentina with the rank of constitutional hierarchy. This law 27.044/14, establishes with forcefulness in its article 24 that: "States Parties shall ensure that persons with disabilities have general access to higher education, vocational training, adult education and lifelong learning without discrimination and on an equal basis with others. To this end, States Parties shall ensure that reasonable adjustment or accommodation is provided for persons with disabilities."

In this sense, a free-of-charge university programme has been developed by the Faculty of Education of the National University of Cuyo, based on the initiative of the Dean's Office, the Academic Secretariat, and the Directorate of Careers of the University Professoriate of Therapeutic Pedagogy in Intellectual Disability, with Orientation in Motor Disability, the Coordination of the Inclusion Area of the National University of Cuyo, as well as specialists who form part of the Doctorate in Education in Diversity. This programme arises from the need to respond to an area of vacancy inherent in the university training proposals, aimed at people with intellectual disabilities. This paper will address the epistemological foundations, objectives, methodology, and the planned training proposal.

Keywords

Intellectual disabilities. Labor training. University training for disabled people. Lifelong learning

Former clients of special needs education in the Hungarian homeless services

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Abstract

Background

Since the collapse of the communist regime in Hungary, a growing proportion of the population has been affected by housing poverty. Privatization led to a radical shrinking of the social housing stock, needs-based housing support options were dismantled, the number of evictions increased (Habitat for Humanity, 2020; Győri 2020; Teller et al. 2023). Homeless services were created in the 1990s to address the needs of people in housing crisis in relation to systemic changes, but over the decades, the sector has become a last resort for many people facing complex disadvantage. Surveys of homeless clients pointed out the over-representation of early school leavers, people raised in foster care, people in poor physical and mental health, and Roma people (Győri, 2017; Szabó, 2014; Bényei et al., 2018; Rákosy & Szeitl, 2018; Győri, 2021).

Methods

My exploratory research addresses the intersections of special education needs, disability and homelessness in Hungary, relying on secondary analysis of data from the cross-sectional surveys of the Hungarian homeless service sector using descriptive statistical methods, and qualitative interviews with homeless experts by experience and homeless people who once attended special needs education or were raised in foster (State) care.

Findings

Interim findings of this ongoing research will be presented, focusing on the characteristics of homeless people reporting a special education or foster care background, and/or disabilities.

Conclusion

The overrepresentation of persons with a childhood special education and/or foster care background among homeless adults, their complex problems and paths leading to homelessness indicate gaps in welfare services, and a need for additional support options in adulthood.

Keywords: homelessness, special education needs, disability, foster care

Exploring levels and degrees of self-determination in relation to the motivations and travel experiences of individuals with vision disability

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Abstract

Background: According to the World Health Organization, over 2.2 billion people globally live with some form of visual impairment, yet research on their travel experiences remains scarce. There is a common misconception that individuals with vision disability, particularly those with blindness, do not engage in tourism due to its reliance on visual stimuli. Nevertheless, many people with vision disability do travel—often with guides or in organized groups—motivated by similar desires as sighted individuals to explore or relax. This study aims to explore the potential correlations between the motivations that encourage individuals with visual impairments to travel towards their level of self-determination.

Method: Data collection was conducted in two successive phases, following a sequential mixed methods design. This design—also known as the two-phase model—involves an initial phase of quantitative data collection, which is subsequently followed by the collection of qualitative data. In total, 71 individuals with vison disability participated in the present study and the data were collected by the following instruments: a. The Multi-Attraction Tourist Motivation Scale (MATMS), b. The Multi-Attraction Tourist Constraints Scale (MATCS), c. The Self-Determination Inventory: Adult Report (SDI:AR), and d. Semi-structured interviews.

Findings: It seems that for both male and female participants, social influence plays a key role in their travel decisions. A peaceful atmosphere is a shared motivation across all travellers. Regarding self-determination, male participants exhibited statistically lower levels of self-determination compared to women. Analyses of the SDI:AR revealed that men have a slightly lower mean score than women on the «DECIDE» component, indicating that women demonstrate higher levels of self-determination.

Conclusion: Further research need to be conducted taking into account cultural and societal parameters.

Keywords: visual impairment, motivations, traveling, self- determination

"Hidden figures – life beyond data" -Transformation in the School for the Blind Budapest

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Abstract

Background: The population of children and students served by the School for the Blind in Hungary has changed in the past 2 decades in terms of the proportion and severity of the type of disability served, which also affects the educational processes of the institution (change in basic tasks, transformation of the training structure).

Method: Data analysis by ophthalmological diagnoses and disability types by age group, as well as document analysis to describe changes in the legal environment.

Findings: The fact that students with multiple disabilities are now in the majority entails a change in the special education educational strategy of the entire institution.

When examining institutional responses (change management), subjective factors (e.g. attitude, acceptance, coping strategies, motivation, need for individual development) should be considered in addition to objective factors (legal environment, infrastructure, equipment, professionals).

Conclusion: Changes in the number of visually impaired children have an impact on the entire education system; they indicate structural and methodological changes within special institutions. Based on the prognosis of changes in the number of students, mandatory and possible educational tasks set the direction of the institution's management strategy and determine the need for organizational transformations.

Keywords: student population, blind, transformation

Enhancing Knowledge Acquisition in Visually Impaired Students through 3D Printed Models: A Quasi-Experimental Study

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Abstract

Purpose: The study was aimed at exploring the educational effects of 3D printing objects to illustrate history learning capabilities both towards students with visual impairments and sighted students. The study focuses on the efficacy of these tactile models in comparison to a traditional teaching approach for comprehension and retention of historical information.

Methods: Experimental group of blind students to whom the 3D printed models for historical buildings (Eiffel Tower, Leaning Tower of Pisa; Colosseum; Taj Mahal and Pyramids) used as a demonstrative resource were presented; Control group represented by sightless who did not access these resources. They completed pre and post-tests of history knowledge related to the 3D models which were used during the experiment.

Results: There were significant differences between groups, when conducting a t-test. Results indicate that there is a statistically significant difference between the total scores of the control group and the experimental group after the intervention, In fact, students with visual disabilities scored much higher in terms of recall and understanding on historical facts if they had access to the 3D models. The progress was less pronounced in the control group but sighted students over time increased their level of knowledge as well.

Conclusions: 3D printed replicas of cultural heritage artifact can be useful teaching aids to assist students with visual impairments in improving learning history. These tactile models are visual and hands-on learning experiences, adding an extra resource for blind or partially sighted students as well. These results indicate that by addressing these models in the curriculum, learning outcomes of students with visual impairments can be improved considerably.

Keywords: 3D models; History Education; Students with Visual Impairment; Quasi-Experiment.

Impact of an intense office-based vision therapy program after mild traumatic brain injury: Patients with remaining visual deficits after one-year follow-up

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Abstract

The purpose of the study was to study the effects of vision therapy on oculomotor function and vision-related symptoms in eight patients with remaining visual symptoms more than one year after the Mild Traumatic Brain Injury (MTBI).

Method: The case report is a continuation of a previous longitudinal study (08/2024) and describes the outcome of a three-week intense office-based, individualized Visual Training Program (VTP) for patients who still had remaining visual demands after the one-year follow-up evaluation. Evaluation of both visual symptoms and visual functions were included in the study. The oculomotor functions were recorded and analysed before and after the VTP.

Findings: Significant improvement comparing abnormal and normal findings before and after VTP was seen in the recordings of the eye gaze. Visual functions also improved.

Conclusion: For further studies it would be an advantage to more commonly include eye tracking technology to find more sensitive markers to track visual deviations longitudinally.

Keywords: mild traumatic brain injury, visual demands, vision therapy

Applying a Critical Realist Framework to Analyse Inclusive Education Reform in North Macedonia

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Abstract

Background: Inclusive education reforms in North Macedonia aim to align with international standards and promote equity for learners with special educational needs and/or disabilities (SEND). However, structural and cultural barriers continue to shape how inclusion is designed and implemented. Drawing on the stratified ontology of Critical Realism (CR), this study explores how inclusive education policies and practices in North Macedonia can be mapped onto Qu's (2020) CR model to identify tensions between policy intentions, enacted practices, and underlying systemic mechanisms.

Method: A theory-informed conceptual mapping approach is used to apply Qu's CR framework to Macedonian inclusive education policies, legislation, and support practices. Through interpretive analysis based on CR's three domains—empirical, actual, and real—the study examines the depth, coherence, and limitations of ongoing reforms.

Findings: Inclusive education in Macedonia reflects unresolved tensions between medical and social paradigms. Mechanisms such as ICF-based assessments, multi-tiered support systems, and specialized staff roles are interpreted through CR's ontology to reveal stated inclusion goals (actual), observable practices and perceptions (empirical), and entrenched structural and normative barriers (real) that inhibit the translation of rights-based discourse into effective inclusion.

Conclusion: The CR framework enables a holistic understanding of inclusive education by linking pedagogical commitment with structural transformation. When applied to transitional systems like Macedonia's, it clarifies why inclusive ideals are challenging to realize and offers insights into how education systems can evolve toward more effective and quality learning environments for learners with SEND.

Keywords: Critical Realism, Inclusive Education, SEND, Policy Analysis

Special Pedagogy for Life Planning: Empowering Voices Through Self-Determination

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Abstract

Background: Self-determination has emerged as a fundamental element in enhancing Quality of Life for all people, particularly those with disabilities (Shalock, Verdugo Alonso, 2002; Giaconi, 2015). This research presents the ongoing adaptation and validation of the "Self-Determination Inventory System" for the Italian educational and cultural context, targeting students between 13 and 22 years of age, their parents, and educational professionals.

Method: The Italian validation process employed a rigorous mixed-methods approach. During the pilot phase, preliminary versions of both the "Self-Determination Inventory: Student Report version" (SDI: SR) and "Self-Determination Inventory: Parent/Teacher version" (SDI: PR/TR) were administered to a diverse sample of students, parents, and educators. Following questionnaire completion, participants engaged in structured focus groups to evaluate item clarity, conceptual understanding, and overall instrument effectiveness in capturing information about self-determination.

Findings: Initial results and triangulation analysis confirmed the instrument's validity while revealing both alignments and discrepancies in stakeholders' perceptions. These insights provide a valuable understanding of the complex dynamics involved in nurturing self-determination across different educational contexts.

Conclusion: The research underscores a significant challenge within educational frameworks: ensuring that individuals with disabilities have their voices genuinely heard and meaningfully incorporated into their Life Planning processes. The validated instrument offers a promising tool for assessment and intervention planning that respects the autonomy and self-determination of all learners.

Keywords: self-determination, Quality of Life, students with disabilities, Life Planning

Exploring the Potential of Generative AI in AAC: Towards an AAC Chatbot as a Communication Partner for Individuals with Complex Communication Needs

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Supervisor: **Prof. Dr. Andrea Erdélyi**

Abstract

Background: The implementation of high-tech Augmentative and Alternative Communication (AAC) aids frequently fails due to a lack of support from users' social environments (Erdélyi & Thümmel, 2015). Studies have shown that negative attitudes and limited competencies among communication partners significantly increase the abandonment rate of AAC (Baxter et al., 2012; Donato et al., 2018; Johnson et al., 2006; Moorcroft et al., 2019; Soto et al., 2001). In light of rapid technological developments in the field of communication over the past five years, Generative Artificial Intelligence (GenAI), capable of generating contextually appropriate and coherent language outputs, may offer new approaches to this longstanding implementation challenge (Lang et al., 2023; Li et al., 2022; Neamtu et al., 2019; Sennott et al., 2019).

Method: This PhD project explores the potential of a GenAI-based "AAC chatbot" as a complementary communication partner for AAC users. Drawing on a three-phase research design that integrates ethnographic fieldwork and methods from human-computer interaction such as User-Experience-Design, the project investigates how GenAI might enhance AAC use through increased practice opportunities and responsive interaction.

Findings: Although no technology can replace an engaged social environment, it may provide additional, low-threshold communication opportunities — particularly where consistent modeling (using AAC to teach AAC) by human partners is lacking. By offering frequent, responsive interaction, such an AAC aid could contribute to reducing the high abandonment rates.

Conclusion: The project raises critical questions: What role can GenAI play in the implementation of AAC technology? Can an AAC chatbot serve as a competent communication model and support communicative participation for AAC users? This research aims to contribute to the emerging discourse on (Gen)AI and disability by centering user needs and exploring inclusive technological solutions.

Keywords: Alternative and Augmentative Communication, Artificial Intelligence, People with Complex Communication Needs, Interdisciplinary Research

Inclusion of Autistic Adults in Hungarian Christian Communities

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Supervisor: **Richárd Papp**

Abstract

Background: Recent studies have begun to explore the intersection of faith and neurodiversity, but the focus on Christian communities and autism, especially within the Hungarian context, remains largely unexplored in ethnographic work. This ongoing, anthropological doctoral research aims to fill this gap by examining actual experiences, attitudes, and practices in these communities within the neurodiversity framework.

Method: The research employs anthropological ethnographic methods of immersive observation, narrative, semi-structured interviews and previous interview data from the researcher's master's thesis, as well as the review of relevant literature. The researcher's position as formerly Christian and autistic has not only provided a unique perspective to the research but also allowed for trust to organically and quickly develop with autistic research participants, provided easier access to faith communities as well as a basis of theological and experiential knowledge of both Christianity and autism.

Findings: Preliminary research shows that barriers to inclusion stem not from autism itself but from the cultural, theological, and infrastructural norms of faith communities. These include sensory challenges, social exclusion, theological interpretations that marginalize neurodivergent behaviors, and a resistance to change. However, some communities have inclusive potential shaped by leadership, theology, and willingness to adapt. Autistic individuals develop varied coping strategies and, in some cases, construct their own theological frameworks.

Conclusion: By highlighting both systemic barriers and paths toward inclusion, the dissertation aims to inform accessibility policy, shift narratives about autism and religion, and contribute to more inclusive religious practices that affirm neurodivergent identities.

Keywords: Autism, Neurodivergence, Christianity, Inclusion