



COLLECTION OF ABSTRACTS

for the

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Budapest University of Technology and Economics

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11.24. - Monday	
9:00-10:30	Technological Advances in Education I.
	<i>Session Chair: Saule Anafinova</i>
	Alina Lohosha - <i>The Role of Digital Tools in Adult Learning: Blended Learning Strategies in the Workplace</i>
	Pamela Karambu Muriungi - <i>From Tablets to Tests: Advancing Accessible Education for Visually Impaired Learners at Likoni School</i>
	Youssef Rezgani; Zsolt Nemeth; Mohamed Sami Bouzid - <i>The Integration of The 3D Visual Feedback in Developing Small Sided Games for Youth Soccer Training</i>
	Joyce Muthoni Njiiri - <i>Technology-Enabled Learning for Competency Development: Assessing Foundational Skills Acquisition in Kenya's CBC Framework</i>
	Ferdaous Othman; Vincze Beatrix - <i>The Pedagogical Power of Space and Technology: Redefining Museum Education for Inclusive and Future Oriented Learning</i>
	Saule Anafinova - <i>Life-long learning in the context of Generative Artificial Intelligence</i>
11:00-12:30	Teacher Training
	<i>Session Chair: Joyce Muthoni Njiiri</i>
	Dorottya Fekete; Tímea Ceglédi - <i>Resilient Teachers as Value-Brokers: How Teachers' Childhood Adversity Shapes Their Educational Values</i>
	Gabriella Kállai - <i>Exploring the Pedagogical Views of Students In University Training In Special Education Using Qualitative Tools</i>
	Gabriella Kovács - <i>Language Teacher Trainees' Reflections on Teaching Practice: Insights from Classroom Observations, Teaching Experiences, and Extracurricular Activities</i>
	Lochana Shaminda Muthukumarana Wagarachchige; Liga Paula - <i>Teachers' Quality of Work Life in Latvia and Sri Lanka: the Role of the Trade Unions</i>
	Amin Saed - <i>A Decision-Ready EAP Questionnaire for Teacher Education in Hungary: Design, Expert Review, and Reliability in a CIPP Frame</i>
13:30-15:00	Sustainability and Education
	<i>Session Chair: János Tóth</i>
	Victor Achuodho - <i>Embedding Global Citizenship and Sustainability in Language Education: A Bloom's Taxonomy Approach</i>
	János Tóth; András Lakatos - <i>Educational Aspects of A New, Demand-Responsive Public Transport Solution That Reduces The Negative Traffic Spiral</i>
	Aye Aye Myint Lay - <i>Investigating Prospective Teachers' Perceptions of 21st Century Competencies for Achieving Education for Sustainable Development Goals</i>
	Robert Ouko Recha; Robert Kyalo Ndambuki - <i>Documenting the Level of Effectiveness of Experiential Learning Approach towards Promoting Climate Smart Agriculture Concepts Integrated in the Competence-Based Agriculture Curriculum</i>
15:30-17:00	Cross-cultural Challenges
	<i>Session Chair: János Farkas</i>
	Karolnia Eszter Kovács; Nasrin Jourian - <i>The Characteristics of Sport Persistence among International Students based on a Systematic Review of Literature</i>
	Ho Thu Hanh - <i>Perceived parental expectations, academic anxiety, and depressive symptoms in university students: a cross-cultural analysis</i>
	János Farkas, Zita Hajdu - <i>Comparative Analysis of Mobility Attitudes among Hungarian and International Students in Hungary</i>
	Zsófia J. Tószegi; Ágnes S. Fazekas-Vinkovits; Aranka Varga - <i>How to measure inclusion at the university? Piloting and validating instruments in CHARM-EU and EDUC university consortiums to build Inclusive Excellence</i>

11.25. - Tuesday	
9:00-10:30	Psychology and Philosophy in Education
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	Humphrey Ouma Achuodho; Naomi Odira; Bettina Piko - <i>Identity, Well-Being, and Learner Disposition: A Qualitative Exploration of Vocational Learners' Experiences</i>
	Vanda Pető - <i>Exploring Mentor-Parent Dynamics in the Invisible School Mentoring Program</i>
	Todisoa Fabiola Stéphanie - <i>The Spirit of Service: Education Through Franciscan Philosophy as a Path To Fraternity, Peace, and Social Justice</i>
	Dóra Hegyesi; Anett Kádár - <i>Australia Project: A Case Study on Multimodal Learning and Motivation</i>
	Ildikó Zank - <i>Mapping Belonging: Insights from a Pilot Study Exploring Wellbeing Among International Students Using Ego-Centric Network Cards</i>
	Duncan Mwaghadi - <i>Help-Seeking Behavior: Are Students More Likely to Ask Male Teachers for Help in Mathematics?</i>
11:00-12:30	Operational Challenges in Education
	<i>Session Chair: Moses Njenga</i>
	Moses Njenga; Jemimah Muchai; Stephen Munguti - <i>Integrative Review of Kenya's Policy Agenda for TVET</i>
	Yoeurng Sak - <i>Exploring a school-based mentoring program at a secondary resource school in Cambodia</i>
	Hossain Md. Shakhawoat - <i>Strengthening Leadership Capacity and Conflict-Prevention Policy in Hungarian Public Service Education: Evidence from Mediation Training and Institutional Case Studies</i>
	Francis B. Mutua; David M. Mulwa - <i>Observation as A Preparatory Experience In Preparing Professional Documents: A Comparative Study of Pre-Service Teachers in Machakos and Makueni Counties, Kenya</i>
	Maryam Rabani Nia; Evi Agostini; Wietske Boon; Marien Graham; Ann-Kathrin Ditttrich - <i>Teacher Educators' Practices, Challenges, and Motivations for Advancing SDG4: Insights from Austria and South Africa</i>
13:30-15:00	Inclusion and Integration in Education
	<i>Session Chair: Zsafia J. Toszegi</i>
	Katalin Markovics; Veronika Bocsi - <i>Intersecting Influences: Extramural English Use and Sociocultural Background in Shaping Language Exam Attainment Among Hungarian Secondary Students</i>
	Jenifer Balogh - <i>The aspirations (impact) of Roma parents living in disadvantaged micro-regions on their children's further education opportunities: (Analysis of challenges and opportunities)</i>
	Szandra Szverle - <i>Family, School and Community Factors of Early School Leaving in Hungary: Evidence from a 623 Early school leavers Survey</i>
	Nor Amalina Rusli - <i>Parental Perspectives on the Inclusion of Children with Autism Spectrum Disorder in Mainstream Education Settings</i>
	Cahya Pratama Windianto - <i>White Accent, Brown Invisibility: An Autoethnographic Reflection on Native Speaker Privilege and Teacher Well-being in Indonesian Private English Institutions</i>
15:30-17:00	Technological Advances in Education II.
	<i>Session Chair: Imre Tódor</i>
	Asmar Ibadova - <i>The Role of Mobile-Assisted Language Learning in Azerbaijan</i>
	Imre Tódor - <i>Digital Language Revolution: The Role of Artificial Intelligence in Secondary School Foreign Language Learning</i>
	Barnabás Vajda - <i>Searching for Potential Benefits of the AI In History Teaching</i>

	Dénes Zarka - <i>Learning Achievements, Big and Small - The Link Between Gamification In Digital Badges</i>
	Dóra Szabó - <i>EduFame: The Power and Practice of Teacher Influencers on Social Media</i>
	Eric Ndolo Kawai - Teachers' Readiness in Integrating Artificial Intelligence in Kiswahili Language Instruction in Junior Schools in Urban Informal Settlements in Kasarani Sub-County

TECHNOLOGICAL ADVANCES IN EDUCATION I.

The Role of Digital Tools in Adult Learning: Blended Learning Strategies in the Workplace

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Adult learning, blended learning, digital tools, workplace training, hybrid education

The accelerating digital transformation of work has profoundly changed how adults learn within organizations. Professional development has evolved with the use of digital resources such as Learning Management Systems (LMS), virtual classrooms, and microlearning platforms. These tools enable flexible, learner-centered, and continuous learning. The social and experience aspects of learning, essential for engagement and skill transfer, are often overlooked in fully online approaches. This paper explores how digital tools can be effectively integrated with collaborative and experiential methods to form blended learning strategies appropriate for workplace contexts.

This study builds on adult and workplace learning theories, including Garrison and Vaughan's (2008) blended learning model and Illeris's (2018) holistic approach. Together, these theories highlight how humans learn meaningfully when social, emotional, and cognitive factors come together.

The primary objective of this research is to examine how digital tools influence the design, implementation, and effectiveness of adult learning in hybrid workplaces. It also aims to propose a blended learning framework that fosters engagement, inclusion, and lifelong adaptability among employees. Specifically, the study seeks to answer the following question: How can organizations integrate digital technologies with experiential and collaborative learning to enhance workplace training?

Methodologically, the study follows a cross-sectional and descriptive design. Data collection will rely on a brief survey (5-7 questions) among HR professionals and training coordinators in Hungarian organizations implementing adult learning. Responses will be analyzed to identify common patterns and success factors in applying blended learning tools. This empirical component is complemented by a theoretical synthesis of current literature on workplace learning technology-enhanced learning, and organizational development.

According to preliminary findings from previous research, digital technologies improve learner autonomy, accessibility, and customisation. While synchronous communication solutions like Microsoft Teams and Zoom encourage teamwork and immediate feedback, LMS platforms facilitate progress tracking and modular learning. Microlearning and mobile-based modules maintain engagement through short, contextualized content (Dirksen, 2015; Salas et al., 2012). However, the sense of community and shared reflection required for deep learning cannot be fostered by digital learning alone, underscoring the significance of blended learning strategies that combine technology efficiency with human connection.

In this study, blended learning is conceptualized not simply as a combination of online and offline models but as an integrative framework that combines the best features of each. It encourages learning via action, introspection, and discussion while utilizing technology to make these procedures scalable and accessible. The proposed model promotes a culture of ongoing learning and information sharing by emphasizing the connection between company goals with employees' intrinsic motivation. It also acknowledges the vital role that peer connection and psychological safety play in adult education, where people need to feel appreciated and encouraged to try out new abilities and concepts.

Furthermore, the research highlights the importance of digital competence development among both trainers and learners. Inadequate digital literacy can limit participation and reinforce inequality, even in technologically advanced organizations. Thus, the study advocates for targeted digital skills training as a foundation for effective blended learning implementation. By integrating technology with active learning principles, organizations can strengthen both productivity and satisfaction, fostering innovation and adaptability in changing work environments.

The suggested methodology emphasizes peer-to-peer contact, feedback, and reflective practice while fusing social and technological components into a unified learning approach. This paradigm seeks to foster motivation, inclusion, and long-term development by integrating digital tools with adult learning principles, including self-direction, experiential engagement, and goal orientation. The findings will offer evidence-based recommendations for designing blended workplace learning strategies that meet the evolving demands of hybrid work.

1. Dirksen, J. (2015). *Design for how people learn* (2nd ed.). New Riders.
2. Garrison, D. R. & Vaughan, N. D. (2008). *Blended Learning in Higher Education: Framework, Principles, and Guidelines*. San Francisco, CA: Jossey-Bass (John Wiley & Sons).
3. Illeris, K. (2018). *Contemporary theories of learning: Learning theorists... in their own words*. Routledge.
4. Salas, E., Tannenbaum, S. I., Kraiger, K., & Smith-Jentsch, K. A. (2012). The science of training and development in organizations: What matters in practice. *Psychological Science in the Public Interest*, 13(2), 74–101. <https://doi.org/10.1177/1529100612436661>

From Tablets to Tests: Advancing Accessible Education for Visually Impaired Learners at Likoni School

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from tablets to tests: advancing accessible education for visually impaired learners at likoni school

Inclusive and accessible education is a global priority (UNESCO, 2020), aligned with Sustainable Development Goal 4, which calls for inclusive and equitable quality education for all (United Nations, 2015). Yet learners with visual impairments continue to face barriers arising from traditional print-based learning materials and inadequate access to assistive technologies (WHO, 2022; Alper & Raharinirina, 2006). In response to this gap, Likoni School for the Visually Impaired in Mombasa, Kenya, implemented a fully paperless learning environment, where each student from Grade 1 through junior secondary school was provided with a Chromebook tablet. This initiative promoted equity, digital literacy, and independent learning, ensuring that visually impaired learners had access to the same educational opportunities as their peers.

The study aimed to:

1. Examine how digital tools enhanced learning outcomes and literacy for visually impaired learners.
2. Assess the effectiveness of teacher-facilitated guidance in integrating technology across grades.
3. Explore the impact of technology on accessibility to high-stakes national examinations and long-term educational engagement.

Methods:

A mixed-methods approach was employed. Observations were conducted in Grade 1 and junior secondary classrooms to document learners' interactions with Chromebooks, including keyboard proficiency, use of multimedia resources, and execution of subject-based learning activities. Interviews with instructors and the head teacher explored teacher training, accessibility strategies, and administrative planning. Administrative documentation, including the school's assessment by Kenya National Examinations Council (KNEC), was reviewed to evaluate the feasibility of online national examinations for Grades 6 and 9. Factors such as infrastructure, teacher preparedness, and parental involvement were also considered.

Grade 1 learners demonstrated competence in typing and navigating Chromebooks independently and accessed educational content in English and Kiswahili via YouTube, enhancing literacy and language comprehension. Observations in the junior secondary school revealed learners to be highly fluent, engaged, and confident, seamlessly executing learning activities across subjects using Chrome computers. The school's assessment by KNEC allowed learners to take Grade 6 and 9 national examinations online, demonstrating formal recognition of inclusive digital practices. Teachers reported increased engagement, improved digital skills, and greater learner confidence. Parents noted higher levels of participation and independence in their children's learning.

Challenges included occasional technical issues and the need for ongoing teacher training. These were mitigated through a partnership with InABLE Africa, which not only provided Chromebooks but also

employed computer-trained teachers and support personnel, including individuals with albinism, to guide learning. This collaboration ensured sustainability, availability of skilled staff, and reinforced inclusive and accessible education practices.

Likoni School's paperless initiative exemplifies how technology can advance inclusive and accessible education for visually impaired learners across multiple educational levels. By providing digital resources, fostering independent learning, and enabling participation in national examinations, the school created a scalable model that can inform other institutions in resource-constrained contexts. The sustained digital competence observed from Grade 1 through junior secondary highlights the long-term impact on literacy, engagement, and learner empowerment. This case study provides valuable insights for policymakers, educators, and researchers seeking to advance inclusive education practices globally.

Alper, S., & Raharinirina, S. (2006). Assistive technology for individuals with disabilities: A review and synthesis of the literature. *Journal of Special Education Technology*, 21(2), 47–64. <https://doi.org/10.1177/016264340602100204>

United Nations. (2015). *Transforming our world: The 2030 agenda for sustainable development*. United Nations. <https://sdgs.un.org/2030agenda>

UNESCO. (2020). *Global education monitoring report 2020: Inclusion and education – All means all*. UNESCO. <https://unesdoc.unesco.org/ark:/48223/pf0000373718>

World Health Organization. (2022). *World report on vision*. World Health Organization. <https://www.who.int/publications/i/item/9789241516570>

The Integration of The 3D Visual Feedback In Developing Small Sided Games for Youth Soccer Training

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soccer ; artificial intelligence ; small sided games; learning

The youth training programs play a crucial role for the advancement of the player, at such level, the development of the teams based on the background of their academies (Harris, 2020). Previous research has highlighted the significance of artificial intelligence (AI) and machine learning algorithms in soccer, particularly in areas such as tactical knowledge, technical skill development and adaptation to individual learning styles.

The main goal of this study is to see the influence of the video animated feedback on youth soccer players.

3 weeks of training into a soccer academy with 3 sessions per week of training. two groups of players to get into the experimentation as for the first experimental group followed the program training with a video feedback of his execution and a 3D animation. And a control group involved into the same program training with just the verbal feedback. Informed consent was taken from the players and their parents.

With this intervention, the player contributed into a 1vs1 program training which was chosen by the coaches team with the aim to develop the skills of the striker and the defender. The tactical efficiency, the dribbling skills and the speed of making the ball far from the defender are the criteria of success for the player who has the ball. For the defender's tactics execution, position in front of the ball and the ability of gaining the ball.

A fixed camera is used to record the execution of the players while the research team uses the video recordings and grid of criteria to evaluate the player's performance for every session for the defenders and the striker. As, the grid scores can be between 0: (--) Null; 1:(+/-) Satisfied; 2(++) Good.

A stress scale used in this intervention, which aims to assess the stress factors in sports training, this version is tailored to youth soccer context.

This a proposal project which will more ameliorated. As an expected results, the tuse of the new tool of AI and the implementation within a program training specific to the youth soccer players will be effective and increase their level of performance.

The adoption of AI in sports training has introduced new perspectives for development in coaching and athlete improvement in various ways (Jud,2025)

Technology-Enabled Learning for Competency Development: Assessing Foundational Skills Acquisition in Kenya's CBC Framework

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technology-enabled learning, competency development, literacy foundational skills, digital tools

As Kenya transitions to a Competency-Based Curriculum (CBC), there is growing interest in leveraging digital tools to strengthen early grade literacy and numeracy. Digital interventions are particularly promising given their potential to support differentiated instruction, expand access to quality content, and enable real-time assessment even in resource-constrained environments. However, their integration faces three interlinked challenges. First, many teachers lack adequate training in digital pedagogy, especially in underserved regions, that struggle with limited access to devices, connectivity, and electricity (Otieno, Odongo, & Aloka, 2024). Second, while digital literacy is increasingly recognized as a foundational competency (Hague & Payton, 2021), its implementation often overlooks inclusive practices such as first language instruction and adaptive assessment, which are critical for early learning (Gichuru et al., 2021; Usawa Agenda, 2023). Third, parental engagement remains low, with many caregivers lacking the digital literacy and awareness needed to support learning at home. In addition, fragmented education data systems constrain the design of responsive interventions.

The purpose of this study is to generate actionable evidence on how technology-supported learning can strengthen foundational literacy and numeracy within Kenya's Competency-Based Curriculum (CBC), particularly in marginalized contexts. By examining how digital tools are integrated into early-grade instruction, assessment, and learner engagement.

i.To examine the integration of digital tools into CBC-aligned instruction in public schools across marginalized contexts and assess their pedagogical impact on foundational literacy and numeracy acquisition.

ii.To evaluate inclusive, technology-supported assessment practices for identifying and addressing early learning needs among Grade 1 to 3 learners in marginalized contexts.

iii.To investigate scalable technology-based delivery models for foundational content in resource-constrained settings within marginalized contexts, across both classroom and learning environments.

This study adopts an explanatory sequential mixed methods design (Creswell & Creswell, 2023), consisting of two distinct but connected phases. In the first, quantitative phase, the study will collect data on learner performance, digital access, and teacher practices using standardized foundational literacy and numeracy assessments, structured surveys, and school-level digital infrastructure audits. Quantitative analysis will identify patterns and relationships between technology use and learning outcomes across participating schools.

Building on these findings, the second, qualitative phase will purposively select participants from the initial sample to explain the quantitative results in greater depth. Through interviews, focus group discussions, and classroom observations, this phase will explore the contextual and pedagogical factors that help interpret variations observed in the quantitative data.

The qualitative results will thus help explain and expand on the quantitative findings, providing richer insights into how and why technology-supported teaching and learning succeed or falter in resource-constrained environments. This sequential design enhances methodological rigor and interpretive depth while producing policy-relevant evidence to guide equitable and context-sensitive implementation of the Competency-Based Curriculum (CBC) in Kenya.

The study seeks to identify context-sensitive, equitable, and scalable models of technology-supported teaching and learning that suits marginalized contexts in Kenya.

The findings will inform evidence-based policy and practice, supporting the Ministry of Education and partners to improve early learning outcomes in resource-constrained environments.

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Hague, C., & Payton, S. (2021). Understanding and developing digital literacy. Cambridge Life Competencies Framework. Cambridge University Press. <https://www.cambridge.org/elt/blog/2022/04/07/understanding-developing-digital-literacy/>.

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The Pedagogical Power of Space and Technology: Redefining Museum Education for Inclusive and Future Oriented Learning

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Museum education; spatial pedagogy; digital learning; artificial intelligence; inclusion, Future education

In recent decades, museums have transitioned from object-centered institutions to interactive, participatory learning spaces that merge architecture, education, and technology. This shift reflects broader transformations in educational theory emphasizing inclusion, creativity, and emotional well-being.

Research shows that spatial organization and digital technology directly influence learning engagement, accessibility, and affective experience (Hooper-Greenhill, 1999; Falk & Dierking, 2000; Tang et al., 2024).

The spatial turn in museum and educational research (Berényi, 2014; Krajewski & Khoury, 2021) highlights architecture as an active pedagogical medium, while advances in AI, VR, and AR redefine museums as adaptive, learner-centered environments. Despite growing evidence of these effects, few studies have systematically examined how spatial design and digital technologies jointly shape educational inclusion and well-being the gap this research seeks to address.

The aim of this study is to explore how spatial configuration and technological integration influence learning, inclusion, and emotional engagement in museums, and what educational principles can be derived for future learning environments.

The research investigates three interrelated questions:

How do architectural spaces function as pedagogical agents affecting cognition and engagement?

How do AI-driven and immersive technologies enhance inclusivity and accessibility in museum education?

How can these insights inform educational policy and practice in designing inclusive, well-being-oriented learning spaces?

The motivation stems from the need to redefine educational environments as holistic ecosystems where space, technology, and pedagogy converge to promote both intellectual and emotional learning.

A qualitative, interpretive approach was adopted, integrating architectural and educational analysis. Case studies were selected from five exemplary museums: Tate Modern (London), V&A Dundee (Scotland), Guggenheim Bilbao (Spain), Hans Christian Andersen House (Odense), and TeamLab Future Park (Shanghai).

Data sources included architectural documentation, institutional reports, digital program evaluations, and secondary literature. Spatial analysis focused on layout, movement, light, and sensory engagement, while digital analysis examined AI, VR, and AR applications supporting inclusion and interactivity.

A spatial-educational coding framework was developed to identify how spatial and digital design contribute to educational outcomes such as creativity, emotional resonance, and accessibility.

The findings are interpreted through the Contextual Model of Learning (Falk & Dierking, 2000) and constructivist learning theories (Dewey, 1916; Stuedahl & Lowe, 2020), positioning architecture and technology as co-agents in meaning-making.

Preliminary findings indicate that spatial form and digital interaction jointly enhance learning depth, inclusion, and well-being.

Spatial pedagogy: Non-linear pathways and open architectures encourage exploration and agency, turning movement into a cognitive process.

Technological integration: AI-based and immersive installations (e.g., Novartis Pavillon, Basel; TeamLab Future Park, Shanghai) expand accessibility and emotional engagement, supporting diverse learning styles.

Educators' role: Museum educators increasingly act as co-designers of learning spaces, ensuring coherence between spatial layout, digital narrative, and pedagogical intention.

These results suggest that combining spatial awareness with digital ethics creates inclusive environments that sustain curiosity, creativity, and emotional balance key dimensions of learner and educator well-being.

The study concludes that the future of education depends on the integration of spatial and technological design as foundational elements of pedagogy. Museums illustrate how hybrid physical-digital environments can foster belonging, participation, and emotional resilience.

Recommendations include:

Embedding spatial literacy and digital ethics into teacher training and educational design curricula.

Encouraging collaboration between educators, architects, and technologists to create adaptive learning environments.

Promoting policies that recognize emotional and spatial dimensions of well-being as core educational outcomes.

By viewing space and technology as complementary forces in education, the study contributes to a broader understanding of how design and innovation can create sustainable and human-centered models of learning that respond to the social and ethical challenges of the twenty-first century.

Berényi, M. (2014). Spatial experiences in contemporary museum design. Hungarian Museum of Architecture.

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Tang, Y., Lee, K., & Ariffin, S. (2024). Designing intelligent museum spaces: Parametric modeling and adaptive learning environments. *Journal of Digital Cultural Heritage*, 18(2), 112–129.

Stuedahl, D., & Lowe, R. (2020). Embodied learning and spatial engagement: The role of museum spaces in education. *Museum & Society*, 18(1), 72–89.*

Life-long Learning in the Context of Generative Artificial Intelligence

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Generative AI, lifelong learning, humanistic education, hybrid intelligence, skills development

The context for the present study is the latest AI-driven technological innovation wave, which has developed since 2022 (Morandini et al., 2023, Shiohira, 2021).

The purpose of this paper is to critically reflect on the development of lifelong learning in the context of the emerging Artificial Intelligence and AI-driven automation, which would create challenges for education and training. The paper critically reexamines lifelong learning in the context of AI-driven changes in technology.

The paper uses a critical analysis of historical policy documents in education, including UNESCO's Faure and Delors reports, OECD skills strategies, and EU Council recommendations from 2006 and 2018. The analysis reveals the shift in the lifelong learning agenda in XX century. The study provides critical reflection on the historical development of lifelong learning in the context of the new innovation wave, driven by Large Language Models can analyze and synthesize information.

The results of the critical reflection and re-evaluation reveal that lifelong learning agenda needs to be reassessed, because its development in XX century was driven by the economic needs. However, in XXI century, higher order skills, like creativity, critical thinking and problem solving are critical for education curriculum.

Based on the analysis, the paper recommends returning to the humanistic values, that originally shaped the development of lifelong learning. Future research should explore the concept of hybrid intelligence from the perspective of university curriculum and higher education pedagogy. Understanding hybrid intelligence needs research on AI in education.

Morandini, S., Fraboni, F., De Angelis, M., Puzzo, G., Giusino, D., & Pietrantoni, L. (2023). The impact of artificial intelligence on workers' skills: Upskilling and reskilling in organisations. *Informing Science*, 26, 39–68.

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TEACHER TRAINING

Resilient Teachers as Value-Brokers: How Teachers' Childhood Adversity Shapes Their Educational Values

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resilient teacher, value, value system

This research has two focus points: resilient teachers and their value system. In this research we are trying to shed light on what kind of values resilient teachers own and how these values appear during teaching. This research is justified by the high number of resilient teachers in Hajdú-Bihar County (Ceglédi, 2015) and the value-broker role of the teachers. It is crucial to deal with the values what we gain at school, not just because school is the second important place in our life when it comes to socialisation (Parsons, 1959), but also because of the fact that values do influence our choices, activities, ways of thinking, etc. (Bocsi, 2015).

According to our hypothesis, resilient teachers (those teachers who come from a disadvantaged background and manage to get a degree (Kovács et al., 2022)) have a special value system. The reason behind it is that they have to go through hardships, therefore they have a chance to gain other values too. In this research we are trying to find out, what kind of values do they own and how their families shape their value system. We also would like to answer the question: How does resilience appear when it comes to passing on values during teaching. Resilient teachers have lesser been examined from the perspective of values; therefore, our goal is to fill a research gap.

In the research we made 10 semi-structured interviews with resilient teachers from Hajdú-Bihar County. These were made between the spring of 2022 and the autumn of 2024. For the analysis we used the Atlas.ti software. We applied thematical analysis, following the six steps defined by Braun and Clark (2006). Generalisability is limited because of the non-probability sampling, but the data is filling a research gap.

With the outcome of the research, we are able to describe the value system of the resilient teachers. The values they own can be separated into two main groups: values they got from their families and the ones they earned through their resilient lifepath. During teaching they not just pass on values from one group, but they do mix values from the two categories.

The findings can be helpful for pre-service or in-service teachers and professionals who are dealing with socially disadvantaged students. The results may also be useful for resilient teachers themselves, e.g. by helping them to deepen their reflection on their family background and value system.

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Exploring the pedagogical views of students in university training in special education using qualitative tools

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metaphor, higher education, beliefs, special education needs teacher

Today, teacher training includes learning about and exploring students' views on teaching and learning in order to bring them into line with modern pedagogical knowledge during the course of their training. The views of students new to the program can be considered layman's views based on subjective beliefs, whether they are enrolled in full-time or correspondence courses.

Since lay views are generally unconscious, it is worth using other techniques to explore them. It can be observed that these ideas are most often recorded in images or experiences, so they can be well examined using qualitative techniques. One such technique is the use of metaphors or metaphor grids. In addition to knowing and using metaphors mainly as linguistic stylistic devices, we can also use them to uncover deeply rooted cognitive and emotional structures. At the international level, numerous studies have examined the role of metaphors related to people with disabilities in teacher training, especially in the context of inclusive education. These studies reveal how metaphors reflect the attitudes, emotional responses, and pedagogical ideas of future teachers. They emphasize that metaphors can help higher education instructors better understand the internal dilemmas and doubts of teacher candidates. With their help, a pedagogical discourse can emerge in training that promotes the development of linguistic awareness, and awareness-raising training courses can be developed that help to foster empathy and self-reflection and promote the development of an inclusive pedagogical approach.

Hungarian and international pedagogical research uses a variety of methods to explore these lay student views. In addition to the now traditional questionnaire and interview techniques, we can also use other, more innovative methods. The research aims to explore the views of special education students entering training on their chosen profession. During their training, these students are prepared to help people with disabilities participate in society in a broad sense, to support the development of children and students with special educational needs, and to support their integration into schools using various tools and methods. I used a metaphor grid (Vámos, 2001) for my research. I collected data at a university, where I interviewed students enrolled in full-time or part-time programs (N=53) at the beginning of their training. The metaphor grid allowed me to use multiple metaphors to map out the university students' ideas about special education teachers. Respondents filled out a table containing ten general categories (first associations) along with their reasons. The general categories included food, drink, natural phenomena, plants, animals, vehicles, and other categories. I chose this tool because metaphors and their explanations reveal individual worldviews, but the summary of the responses also allows for joint processing.

Analysis of the data shows that the metaphors and explanations of students in daytime and correspondence courses show many similarities, although the groups differ in several respects (age, professional experience). They primarily emphasize getting to know and accepting others, as well as providing well-intentioned, reliable help, support, and protection, but the idea of diversity also appears in several interpretations. The most frequently mentioned elements are the rainbow, water, and dogs. In addition to these, the figures of fairies and wizards also appear in naive views, but magic plays a minor

role in the interpretations, while professional competence and, related to this, patience and empathy play a prominent role.

The research highlights that the use of metaphors in teacher training makes it easier for educators to address the naive ideas of those participants in the training. As educators involved in teacher training, our most important goal is to explore these views in order to align them with modern pedagogical knowledge during the training. During this harmonization, it is sometimes inevitable that different perspectives and views will clash, which may occur in several courses during the training.

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Language Teacher Trainees' Reflections on Teaching Practice: Insights from Classroom Observations, Teaching Experiences, and Extracurricular Activities

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teaching practice, reflection, language pedagogy, experiential learning

Teaching practice serves as a vital bridge between theoretical preparation and real classroom experience, allowing pre-service English teachers to integrate pedagogical knowledge with practice. Studies have shown that practicum experiences enhance reflective awareness, methodological flexibility, and professional identity formation (Yin, 2019; Velasco, 2019). Engagement in extracurricular and non-formal learning contexts further supports personal and interpersonal growth, developing teachers' organizational and collaborative skills (Uysal, 2025). Reflective and experiential approaches within teaching practice promote a deeper understanding of classroom complexity and help language teacher trainees transition confidently into their professional roles (Li, Kuang, & Dan, 2023).

The aim is to identify how these experiences shape teacher trainees' pedagogical awareness, methodological competence, and reflective thinking, as well as to uncover the challenges and learning opportunities that arise during the practice.

The study draws on qualitative data collected from trainees' written reports and oral reflections completed during their two-semester teaching practice at various primary and secondary schools. In the first semester, students attended and documented fifteen classroom observations and took part in at least seventeen hours of extracurricular school activities. In the second semester, they conducted four teaching sessions and one exam lesson, accompanied by written lesson reports and reflective discussions.

The analysis focused on identifying recurrent themes across three domains:

1. Classroom observation reports – insights into teaching methods, classroom management, and student engagement.
2. Teaching reflections – challenges, strategies, and perceived growth as novice teachers.
3. Extracurricular activity reports – community involvement, collaboration, and experiential learning beyond the classroom.

1. Classroom Observations

Trainees observed a wide range of teaching methods, from frontal instruction to cooperative learning and game-based activities. They emphasized the motivational impact of group work, which fostered student participation and reduced anxiety. Observing different age groups allowed trainees to compare classroom dynamics and adjust expectations accordingly. They noted that younger learners were more enthusiastic and easier to motivate, while older students required more autonomy and authenticity in materials and topics.

2. Teaching Experiences

When conducting their own lessons, trainees encountered typical challenges of novice teachers: managing time effectively, maintaining discipline during communicative tasks, differentiating instruction for mixed-ability groups, and sustaining learner motivation. They reported that lesson planning required careful balancing of skills (listening, speaking, reading, and writing) within limited time frames. Despite initial anxiety, most trainees described a strong sense of achievement and professional validation after their teaching sessions.

3. Extracurricular Activities

Participation in non-formal educational contexts, such as thematic weeks, camps, creative workshops and poetry readings, provided valuable insights into the broader social role of teachers. Trainees recognized that such activities help build trust and strengthen teacher–student relationships beyond formal instruction. These experiences were described as formative, enhancing adaptability and creativity.

The findings suggest that the teaching practice fosters multifaceted professional growth. Classroom observations strengthen methodological awareness and critical reflection; teaching experiences develop practical classroom management and communication skills; and extracurricular activities cultivate empathy, collaboration, and community engagement.

However, challenges such as mixed-ability groups, classroom discipline, and efficient time management point to the need for more targeted mentorship and peer support during the practice. The reflections also underline the importance of balancing traditional and digital methods, suggesting that technology integration must serve pedagogical goals rather than replace them. Language teacher trainees perceive teaching practice as a transformative stage in their professional formation.

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Teachers' Quality of Work Life in Latvia and Sri Lanka: the Role of the Trade Unions

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trade unions, teachers, quality of work life, Latvia, Sri Lanka

In the education sector, the trade unions often campaign for better work-life balance, equitable wages, reasonable workloads, and professional support systems to boost the quality of work life of the employees. Nanjundeswaraswamy and Swamy (2013) define quality of work life as a multi-dimensional concept including well-being, safe working conditions, opportunities for career advancement, and work-life balance. Smetackova et al. (2019) emphasize that social support of the work place, regularly facilitated by union efforts, expressively reduces teacher burnout and enhance job satisfaction. Supportive work environments are completely correlated with teacher satisfaction and effectiveness (Toropova, Myrberg, Johansson, 2021) demonstrated.

The aim of the research was to examine the role of trade unions in teachers' quality of work life in Latvia and Sri Lanka, and to compare teachers' experiences across working conditions, job security, work-life balance, compensation, and career progression. Apart from this, the authors evaluated the possible drawbacks faced by the trade unions in ensuring the teachers' quality of work life. Another objective of this research was to compare the role of trade unions in influencing teachers' quality of work life across different socioeconomic and cultural contexts and to provide actionable recommendations for policy improvement based on the comparison of the situation in each country. The authors have defined the following research questions: 1) How do trade unions affect teachers' quality of work life in Latvia and Sri Lanka? 2) What similarities and differences exist in teachers' experiences of union influence on their quality of work life in both countries?

This study adopted a quantitative, cross-sectional survey design to investigate how trade unions influence the quality of work life of teachers in Latvia and Sri Lanka according to teachers' opinions and their experience. The data were gathered using a structured, self-administered questionnaire distributed online through Google Forms in March and April 2025. The questionnaire included Likert-scale items to measure perceptions related to each independent variable and the dependent variable. A structured questionnaire was disseminated amongst the teachers across a number of educational institutions in Latvia and Sri Lanka. Convenience sampling method was used to collect the data from the teacher trade union members in each country (sample size in Sri Lanka is 180 teachers and in Latvia - 51 teacher) including the teachers of different age, gender, experience and seniority groups. The data analysis was performed with SPSS Statistical software. Cross-tabulations, the Mann-Whitney U test, and the Spearman's rank-order correlation was performed for data analysis.

In both countries teachers' unions significantly enhance the quality of work life by negotiating for fair wages, job security, professional development, and improved working conditions. They ensure that educators are supported both professionally and personally, which positively impacts educational outcomes. Beyond workplace advocacy, teachers' unions contribute to broader educational reforms and policy making, giving educators a collective voice in shaping curricula, safety standards, and equitable access to education. Their involvement ensures that teaching remains a respected, sustainable, and impactful profession. However, Sri Lankan teachers are happier with their trade union influence on

working conditions compared to the Latvian teachers. Regarding the impact of trade union on the job security, Sri Lankan teachers have strong and very positive perception in comparison to their Latvian counterparts. About the impact of the trade unions on the work load management, most teachers in Sri Lanka negatively responded while Latvian educators were more positive.

To conclude, Latvian teachers have more positive attitude towards the trade union impact on work life balance of teachers compared to teachers from Sri Lanka. Some policy recommendations can be suggested to the trade unions of both countries. Teacher trade unions in Sri Lanka should: 1) expand flexible work policies through collective agreements; 2) strengthen the trade union involvement in workload reduction; 3) to work more on ensuring fair distribution of working hours and responsibilities; 4) establish career advancement frameworks with union input. In Latvia, the trade union should be more involved in 1) ensuring fair distribution of teacher working hours and responsibilities; 2) maintaining strong salary negotiation practices; 3) safety and security advocacy; 4) enhancing mental health and well-being support mechanisms.

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A Decision-Ready EAP Questionnaire for Teacher Education in Hungary: Design, Expert Review, and Reliability in a CIPP Frame

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English for Academic Purposes (EAP); program evaluation; CIPP; questionnaire; SPSS

English for Academic Purposes (EAP) courses in teacher education require evaluation tools that reflect local quality standards and course structures. Previous studies emphasize genre-based pedagogy and feedback literacy as central to EAP learning (Hyland, 2006). The CIPP model provides a practical framework for linking evaluation results to decisions about program improvement (Stufflebeam & Zhang, 2017).

The study aims to design and validate a short, English-only questionnaire that enables a teacher-education program to evaluate its EAP strand within a single semester. The instrument is intended to capture key course elements, form reliable composites aligned with the CIPP framework, and generate concise, actionable insights for program development.

Questionnaire items were derived from existing course rubrics and timetables. Two colleagues with EAP experience reviewed the items for clarity and relevance, and minor revisions were made following a pilot administration. The final instrument was completed by 90 participants. Data were analyzed in SPSS, with reliability assessed through Cronbach's alpha and structure explored through factor analysis to confirm coherent scales.

Results indicated a clear and interpretable structure with satisfactory reliability across all subscales. Participants rated course orientation slightly lower and resources marginally higher, highlighting specific areas for refinement. These results suggest that the instrument can efficiently reveal strengths and weaknesses within an EAP course.

A short, English-only questionnaire can meet reliability and validity expectations while remaining low in administrative burden. Aligned with the CIPP model, it offers a direct route from evidence to action. Three recommendations arise: provide a transparent week-one orientation, use annotated exemplars before practice, and maintain a feedback-to-revision period within the schedule.

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SUSTAINABILITY AND EDUCATION

Embedding Global Citizenship and Sustainability in Language Education: A Bloom's Taxonomy Approach

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Bloom's taxonomy, global citizenship education, English language pedagogy, Kenya

In the multilingual context of Kenya, with over forty-two languages, English language plays a significant role as the country's official language and language of instruction (Lewis et al., 2015; Kenya Institute of Curriculum Development, 2019). Aligning the curriculum to meet the global challenges, the Kenyan education is expected to operate under key thematic areas such as environmental Conservation, Child Labour, Technology–Scientific Innovations, Sports. These themes point to global collective responsibility. The current assessment model in Kenya is centered on the cognitive processes of Bloom's Revised Taxonomic model (Kenya National Examination Council, 2023). Globally, the taxonomy is considered useful for embedding global citizenship and sustainability outcomes into curriculum design (Corazza et al, 2025; Adams, 2015). Despite its theoretical significance, there is hardly any empirical and pedagogical application demonstrating how Bloom's levels can be systematically aligned with sustainability-oriented learning outcomes in language classrooms in Kenya.

This study investigates how Bloom's cognitive processes and pedagogical framework can be used to integrate sustainability and global citizenship competencies into English language teaching. Specifically, it seeks to find out how the taxonomy can be operationalized to enhance learners' critical reflection and agency in global citizenship through English language education.

The study utilizes a curriculum mapping approach, aligning Bloom's six cognitive domains with the instructional objectives from the thematic areas related to global citizenship in the Kenyan Primary school English curriculum. Curriculum designs and instructional materials were examined and descriptively analyzed.

The paper argues that English instructional materials in Kenya have transformative potential for learners to engage with global and local sustainability challenges, develop critical thinking and ethical reasoning, and become agents of positive social change. Linking Bloom's cognitive taxonomy to sustainability and global citizenship offers a replicable model for aligning language pedagogy with broader educational and developmental goals. In addition, it is argued that applying Bloom's Taxonomy enables educators to move beyond language proficiency toward increased student engagement in environmental and social issues, enhanced critical thinking, and improved capacity to apply language skills to real-world challenges.

Contributing to discourse on language pedagogy, curriculum innovation, and policy design this paper maintains that English language classrooms hold transformative potential for cultivating sustainability competencies. It argues that embedding Bloom's framework can support policy implementation and provide a replicable model for broader contexts. The paper underscores the need for empowering teachers through training and flexible curricula to contextualize global citizenship objectives in language instruction.

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Educational Aspects of A New, Demand-Responsive Public Transport Solution That Reduces The Negative Traffic Spiral

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demand-responsive transport, education, new transport technologies, transport systems

The complex relationship between people, track and vehicle fundamentally determines the transport system. This means that travel needs can determine the type of vehicle used, as well as the transport track, but their combined interactions are also valid. This is accompanied by economic, social, settlement structure, legal and environmental systems that ensure the dynamism of transport. (Lakatos & Tóth, 2025), (Lakatos & Tóth, 2024) The "cloud of problems" caused by the set of relationships (Tóth & Lakatos, 2024) requires new engineering and transport technology solutions. (Tóth et al., 2022) One of these solutions - which mitigates the effects of the "cloud of problems" - is demand-responsive public transport (DRT). (Lakatos & Tóth, 2021) In this article, Authors research the educational aspects of DRT systems.

The DRT systems are well-investigated from the economic, transport operational, administrative point of view. Numerous studies - including the authors' own researches so far - deal with these approaches (Lakatos et al., 2020), (Szeri & Dancz, 2023), (Lakatos & Mándoki, 2021), (Škorupa et al. 2024), but the educational issues of using the new technological system - from the passenger, operator and decision-maker sides - are discussed even less in the studies to date. The aim of this research is to determine what educational processes are necessary for the implementation of DRT systems in order to ensure that the positive effects of the previously mentioned aspects (Jaber et al., 2023), (Zumkeller, 2000) can be achieved. In addition to educating users, the study also covers the employees of the customer organizations responsible for transport and bus transport companies.

The DRT transport service differs greatly from traditional public transport (operating on a fixed schedule and fixed route). It is primarily used to provide public transport services in low-traffic areas and periods. (Krystopchuk et al., 2022) The vehicle journeys are planned in advance based on the travel needs reported by passengers by phone, internet or via application. (Du et al., 2025), (Mariano et al., 2023) This is already supported by numerous IT systems on both the operator and the user side, however, their application faces challenges. (Kim et al., 2022), (Dytckov et al., 2022), (Jianget al., 2020), (Huang et al., 2020) These may arise from different levels of digital development, social situation, or simply from an "emotional" rejection of new systems. As a result, the preliminary and continuous education of users and decision-makers is also particularly important. The applied method manages and applies in a complex way the key moments that will make the service acceptable and effective for its users. In the research, the authors discuss in detail the education of passengers, the transport company's management, dispatchers, and drivers, as well as the persuasion of decision-makers responsible for transport provision.

Education is expected to increase the acceptance of the DRT system by decision-makers, service providers and users. This is particularly important because the new type of transport service can provide a higher level of service (i.e. more frequent vehicle journeys) at a lower cost or at a cost that is comparable to the current traditional transport. This contributes to mitigating the negative effects caused by the various elements of the "problem cloud". The negative spiral of dilemmas (maintaining public transport requires significant financial resources, therefore the volume of the service decreases, which is

unfavourable for passengers, so fewer people will travel in the future, which raises further financial problems) could be mitigated or, in extreme cases, reversed.

To summarize the above, the mitigation and management of problems and challenges affecting transportation cannot be achieved by changing only one element due to systemic relationships and interactions. Transportation engineering solutions must always be examined from economic, social, environmental, legal, and educational perspectives. This research sheds light on the latter deficiency related to DRT and offers a methodological solution.

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Investigating Prospective Teachers' Perceptions of 21st Century Competencies for Achieving Education for Sustainable Development Goals

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prospective teachers, 21st century competencies, education for sustainable development, teacher education

In the 21st century, education has been significantly transformed by rapid technological developments, globalization, and changing social needs (Yurt, 2023). 21st century teachers must be competent in their learning and working skills; they need abilities and pedagogical practices that support their students' skill development. Teachers should first have these skills and should know the ways to effectively impart them to their students (Tican & Deniz, 2019). In the 1970s, a report on 'Learning to be' was initiated by UNESCO (Faure et al., 1972), opening up a discussion of how competencies are important to prepare people for future demands. Moreover, the report prepared in collaboration with the American Association of Colleges for Teacher Education (AACTE) and the Partnership for 21st Century Learning (P21) stressed the significance and necessity of providing 21st century competencies to teacher candidates who will be the future educators (P21 & AACTE, 2010). Various educational foundations have tried to generate frameworks to describe 21st century competencies and suggest the extent to which they are integrated into the education system (Brown et al., 2008). To achieve Education for Sustainable Development Goals, it is called for investigating prospective teachers' perceptions of 21st century competencies required for sustainability-oriented education.

This study aimed to investigate prospective teachers' perceptions of 21st century competencies in relation to achieving ESDGs. Specifically, it sought to (1) explore the prospective teachers' perceptions of their development of 21st century competencies (2) examine significant differences in the prospective teachers' perceptions of their development of 21st century competencies with respect to age, gender, specialization. The study also aimed to suggest ways to enhance teacher education programs in fostering 21st century competencies that support sustainable development.

Mixed method research design was used in this study. "Inventory of 21st century competencies" developed by Ravitz (2014) was used. A total of 260 fifth-year prospective teachers participated in this study. Proportionate stratified sampling was utilized for data collection which is then analyzed using the descriptive analysis, independent sample t-test, one-way ANOVA and multiple comparison post hoc tests through SPSS in order to achieve the objectives of the study. Interviews were also conducted with twenty prospective teachers. Content analysis was used for qualitative data analysis.

The results showed that the best achieved competency was "Collaboration" and the least well-achieved was "Global Connections". In addition, prospective teachers were highly developed in "Overall 21st century Competencies". Moreover, it was found that there was significant difference in "Using Technology as a Tool for Learning" competency according to their gender. Again, there was statistically significant difference in the prospective teachers' perceptions of 21st century competencies such as "Global Connections" and "Local Connections" according to their specialization. Perceptions of prospective teachers in Arts on "Local Connections" and Overall 21st century Competencies were higher than perceptions of prospective teachers in Arts and Science. Interview results showed that active learning processes such as group work, project-based learning and problem-based learning, discussion method,

learner-centered approach and brainstorming approach are best practices in developing 21st century competencies.

The results showed that prospective teachers learn both from and with each other through group work, peer learning, networking, and sharing. The moderate level perception in “Global Connections” and “Using Technology as a Tool for Learning” points to the need for making global connection, awareness and interest in issues related to global interdependency, and technology-supported pedagogies that connect classroom learning with real-world sustainability challenges. Teacher education institutions should therefore integrate ESD principles across courses, provide opportunities for community-based sustainability projects. Policymakers and curriculum developers are encouraged to design frameworks that merge 21st century learning with ESD to prepare teachers capable of nurturing sustainable societies.

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Documenting the Level of Effectiveness of Experiential Learning Approach Towards Promoting Climate Smart Agriculture Concepts Integrated in the Competence-Based Agriculture Curriculum

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Competence-Based Agriculture Curriculum, Experiential Learning, Climate Smart Agriculture

Over time, the human population has exponentially grown. Demographic data from the United Nations Statistical Division (2024) report revealed that the global human population was estimated to be 8.2 billion as at 2024 and is projected to grow to 9.7 billion by 2050 and peak at nearly 10.4 billion by the mid 2080's. This trend, coupled with climate change, the agriculture sector is grappling to live up to its expectation of ending poverty and hunger. According to the Food and Agriculture Organization (2018) report, over 800 million people globally are chronically hungry with another 2 billion suffering from micronutrient-deficiency related illnesses. In Kenya, approximately 1.9 million people (12 percent of the population) especially from the Arid Counties are facing high acute food insecurity and in need of urgent attention based on the analysis report from the IPC-Acute Food Insecurity and Acute Malnutrition report conducted for a four month period between February and June, 2024 (Government of Kenya, 2024). Climate Smart Agriculture (CSA) is emerging as an integral component of agriculture in the 21st century as it is perceived to be the ultimate panacea to addressing environmental challenges facing the sector such as climate change, pollution, diseases and pests. CSA has been defined by Lipper and Zilberman (2018) as an approach that aims at promoting agricultural practices and systems that support farmers in building resilience to climate change, enhancing agricultural productivity and reducing pollution by curbing on greenhouse gas emissions. The three components of CSA include; Sustainable Agricultural Productivity and Food Security, Adaptation and Building Resilience and Mitigation (Ouda & Zohry, 2022). Waaswa et al. (2022) outlined the specific CSA practices to include; Conservation Agriculture, Agro-forestry, Climate Smart Soil Management, Integrated Pest Management, renewable energy, greenhouse farming and Climate Information Services. Various countries across the globe such as the United States of America, China, India and the Netherlands have made laudable efforts in promoting CSA, a move that has significantly improved food (Aryal et al., 2018; Chandra et al., 2018; Mango et al., 2018).

Agricultural education is a critical component of agriculture with respect to training and research. Waiganjo (2021) observed that a well-designed and comprehensive agriculture curriculum equips learners who are considered as the prospective future agriculture practitioners with relevant skills and knowledge applicable to the societal needs. With CSA emerging as a panacea to the environmental challenges facing agriculture, various countries across the globe are integrating CSA concepts in their agriculture curricula. In the USA for instance, CSA concepts integrated in the agriculture curriculum are championed through Future Farmers of America (FFA) activities (Sameipour, 2017). Kenya, like any other climate vulnerable country facing climate shocks characterized by floods, drought and irrigation has made efforts to integrate CSA concepts in the agriculture curriculum with the aim of channeling out a skillful workforce capable of adopting climate mitigation strategies. The Competence-Based Agriculture curriculum offered under the Competence-Based Education covers an array of CSA concepts and inclines more towards learner-centered teaching approaches. This study therefore deemed it imperative to specifically document the effectiveness of experiential learning approach on promoting CSA concepts that have been integrated in the CBA curriculum.

Pedagogical approaches, especially those that are learner-centred have far-reaching impacts on learners with respect to content retention and skill acquisition. With Climate Smart Approach being a critical component of modern agriculture, the study aimed at documenting the effectiveness of experiential

learning approach on promoting Climate Smart Agriculture concepts that have been integrated in the Competence-Based Agriculture curriculum.

The study addressed the following Research Questions:

1. Which Climate Smart Agriculture concepts have been integrated in the Competence-Based Agriculture curriculum?
2. What is the level of effectiveness of experiential learning approach towards promoting Climate Smart Agriculture concepts integrated in the Competence-Based Agriculture curriculum?

The Study adopted descriptive research design. A total of 150 teachers of Agriculture from 54 primary schools participated in the study.

The study established that the Junior Secondary School Agriculture curriculum had integrated an array of CSA concepts. The Study also established that experiential learning approaches such as Community Service Learning (CSL), field trips and project based learning greatly contributed towards promoting CSA practices through hands on experiences.

The study recommended that teachers should embrace experiential learning when implementing the CBA curriculum for better reinforcement of CSA concepts. The study also recommended that the Kenya Institute of Curriculum Development (KICD) should include topics on biogas production and greenhouse farming in the CBA curriculum.

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CROSS-CULTURAL CHALLENGES

The Characteristics of Sport Persistence among International Students based on a Systematic Review of Literature

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Sport Persistence, Social Values, International Students, Cultural context, Sports Intervention

It is well-known that sport has various positive impact on physical, mental, and social well-being, contributing significantly to individuals' development in areas such as cardiovascular health, mental strength, and social inclusion (Friedenreich et al., 2021; Anderson & Durstine, 2019; Kovács, 2022). For international students, sports can be a tool for coping with the challenges of adjusting to new cultural settings. However, the characteristics of sport persistence – the sustained commitment to sports activities – remains underexplored, particularly concerning international students (Kovács, 2021; Kovács et al., 2022). Recognizing the role of social values in bolstering sport persistence among international students is crucial for designing effective support programs and policies.

This systematic review aims to synthesize existing literature to identify and evaluate the interventions and best practices that promote sport persistence among international students, with a particular focus on how social values are integrated into these programs. This review may be a useful resource to synthesize information for policy makers and practitioners and detail what has been done and what is in need of further research for researchers. Specifically, we sought to understand (a) common characteristics of sports programs and interventions implemented to support the sport persistence of international students, (b) how social values appear in such programs, (c) specific implications for practice, and (d) areas in need of further research.

The review followed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines. A comprehensive search was conducted using the EBSCO Discovery Service, encompassing 85 databases. The search strategy included keywords related to "sport persistence," "social values," and "international students." Studies were selected based on predefined inclusion and exclusion criteria (PICOS), focusing on empirical research that examines interventions aimed at supporting sport persistence among international students. The following inclusion criteria were set based on the PICOS format. The methodological quality of the included studies was assessed using the Joanna Briggs Institute (JBI) critical appraisal tool.

Out of 285 records identified, 14 studies were subjected to full-text screening, with 8 meeting the inclusion criteria. The studies revealed that various factors, including cultural background, gender, and the types of sports programs available influence sport persistence among international students. Programs that emphasized social values such as teamwork, discipline, and community building were found to be more effective in fostering sport persistence. By categorizing the key outcomes based on the type of article outcome, we could identify trends and insights specific to each type of study, ranging from preferences and barriers to broader impacts on social and academic adjustment. This categorization provides a comprehensive understanding of the outcomes of the reviewed articles and their implications for promoting sport persistence and inclusive campus environments. The findings suggest that interventions aimed at enhancing sport persistence among international students should prioritize the integration of social values. These values not only support the physical and mental health of students but also facilitate their social integration and adaptation to new environments.

The analysis of existing literature outlines the main features of sports and recreation initiatives aimed at encouraging international students to continue engaging in sports activities. These initiatives typically offer a variety of informal sports, instructional sports, intramural, and extramural sports to cater to different interests and requirements. Among international students, particularly those from Asia, informal and instructional sports are favored, as they often prioritize physical well-being over social interaction. Such programs can play a crucial role in promoting the overall well-being and academic success of international students. Future research should explore the long-term effects of these programs and the role of specific social values in different cultural contexts.

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Perceived Parental Expectations, Academic Anxiety, and Depressive Symptoms In University Students: A Cross-Cultural Analysis

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parental expectations, academic stress, anxiety, depression, cross-cultural

One of the major contributors to academic stress in adolescence and young adulthood is parental expectation, which is consistently identified as a potential contributor to mental health problems, including anxiety, depression, and self-harm, across adolescent populations internationally (Stearns et al., 2023). While the pressure to perform well academically is a universal experience for students, its intensity and impact may vary across cultures. A study shows that students from East Asian cultures (e.g., China, South Korea, and Japan) often experience high levels of parental pressure and display more signs of anxiety and depressive symptoms compared to students from Western countries (Tan & Yates, 2010).

Despite previous evidence on the influence of parental expectations predominantly focused on younger populations, the university students' demographic is often overlooked (Hangen et al., 2024). This research seeks to provide a more comprehensive comparison of how parental expectation influences academic stress and anxiety and depressive symptoms in university students from Asian (collectivistic) and Western (individualistic) cultures. Cross-cultural differences in the perception and impact of parental expectations can be fascinating, providing a deeper understanding for better early interventions that promote students' mental health across different cultural contexts.

The study is a mixed-methods research, with quantitative data from a survey (N=309, university students from diverse ethnicities), and qualitative data from responders (N=20) who agreed to short semi-structured interviews. Survey measures include: (a) demographics; (b) depressive symptoms via PHQ-9 (Kroenke et al., 2001) and generalized anxiety via GAD-7 (Spitzer et al., 2006) which are brief, well-supported by scientific literature for their reliability as psychometric measures; (c) perceived academic stress via the 18-item Perceptions of Academic Stress Scale (PAS) (Bedewy & Gabriel, 2015); (d) parental pressure or expectations via 9-item Academic Achievement subscale in Living up to Parental Expectation Inventory (LPEI) (Wang & Heppner, 2002) (e) students' sources of expectations via the Higher Education Expectation Scale (HEES) (Morshidi et al., 2023); and (f) students' perceptions of parental differential high expectations for their academic performance via 9-item High Expectations for Academic Performance scale (HEAP; ability, prediction, demand subscales) (Hangen et al., 2024). For quantitative analysis, we evaluate the reliability of the scales and confirmatory factor analysis. Then we will test measurement invariance across Asian vs. Western groups and use a structural model to test the mediation pathway. Interview transcripts will undergo thematic analysis to elaborate on how students narrate parental expectations and their stress condition.

We expect to find a positive association between perceived parental expectations and psychological distress. When it comes to group differences, we suspect high- and low-expectation students might report similar overall psychological symptoms on average, but the pathway from expectation to stress to symptoms can still be significantly stronger in the high-expectation group. Culturally, we expect the relationship between expectations and symptoms to be stronger among Asian students (from collectivist backgrounds). From the interviews, students are likely to perceive parental expectations as motivating when communicated as support or a confidence boost, but demotivating when experienced as forcing.

While expectations are often positively associated with adolescents' academic motivation and performance (Danişman, 2017; Yamamoto & Holloway, 2010), they are also directly and positively associated with depressive symptoms when they become pressure, especially in Asian cultures. The research can be further investigated to test whether students' majors, universities, parental education levels, and age actually moderate these relationships. Parental expectations do appear to be a significant factor in psychiatric symptoms, but testing this relationship is complicated because so many external and internal factors come into play. It does not just affect their mental health in the moment but can also shape aspects of their personality and how they approach challenges over time.

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Comparative Analysis of Mobility Attitudes among Hungarian and International Students in Hungary

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mobility, international students, studying abroad, cross-table analysis, t-test

Studying or working abroad is beneficial for the personal and professional development of future employees, as the experience of training or working abroad contributes to developing crucial competencies that are highly valued in the labour market. International experience fosters adaptability, cross-cultural communication competencies, decision-making and problem-solving skills enhancing students' employability, international competence and professional success (Sisavath, S. 2021).

This research explores the international mobility attitudes of Hungarian and international students at Debrecen University through a comparative analytical framework, which facilitates the systematic comparison of different groups of students, allowing for the identification of patterns, similarities, and differences. Our research question focuses on the revelation of significant correlations between students' willingness to move abroad, contributing to a deeper understanding of student mobility. Previous research results show that relatively favourable socioeconomic and educational characteristics are associated with a willingness to study abroad (Waibel, S.; Rüger, H.; Ette, A. 2020). The present study intended to examine whether this finding is valid for students studying in Hungary as well.

The methodology of this research involved a quantitative approach, utilising a structured questionnaire with two blocks of questions about the respondents' attitudes towards mobility. Five hundred fifty-seven questionnaires were administered, with a breakdown of 400 Hungarian and 157 international students, enrolled in full-time business and management training programs. Data analysis was conducted using IBM SPSS version 23.0 to examine correlations between the variables. In order to examine the differences between the groups in terms of mean differences in ten continuous variables related to mobility willingness, we used a parametric statistical procedure, the independent two-sample t-test, which examines whether there is a significant difference between the group means of two independent groups. In the case of the test's null hypothesis, we assume that there is no significant difference between the groups. The alternative hypothesis states that there is a notable difference between the groups. (Field, A. 2024). For the nineteen dichotomous variables, a cross-table analysis was employed focusing on adjusted residuals to identify significant deviations from expected values in categorical mobility attitude data.

The key outcomes of this research have revealed significant correlations between Hungarian and foreign university students' willingness to study or work abroad. We established significant differences in seventeen cases out of the nineteen mobility statement variables. We revealed that regarding the purpose of employment abroad, Hungarian students considered high salaries, rapid professional advancement, a high standard of living, better living conditions, and a more predictable future to be significantly more important than they are for international students. At the same time, international students rated professional development, learning about different cultures, independence, a more predictable future, and network building as significantly more important than they were rated by Hungarian students, concerning the purpose of employment abroad. We could not identify a significant difference in the variable of working abroad to improve language skills. The cross-table analysis has revealed that international students are significantly more willing to work and study abroad than Hungarian students

and are significantly more interested in learning about other cultures. Foreign students are significantly more willing to work/study outside Europe and more likely to permanently leave their home country to work abroad than their Hungarian peers.

We have identified 27 significances highlighting the differences between the perceptions of Hungarian and international students in terms of their inclination toward international mobility and settling abroad. The results prove that international students at a Hungarian university are significantly more likely to study or work abroad or permanently settle in the given country. This propensity may be attributed to factors like the global recognition of international experience, better job opportunities, exposure to diverse cultures, and the development of language skills. Moreover, the higher willingness of international students to permanently settle abroad suggests an openness to establishing roots outside their home country. On the other hand, Hungarian students prefer completing their education and building careers within their home country, reflecting a more locally focused approach to education and career development. The findings could be used by universities, policymakers, and employers to better understand Hungarian and international students' needs and future aspirations.

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How to Measure Inclusion at The University? Piloting and Validating Instruments in CHARM-EU and EDUC University Consortiums to Build Inclusive Excellence

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inclusive excellence, higher education, research toolkit, special needs and neurodivergent students

Results of higher education research aiming at the evaluation of special needs inclusion confirm that a paradigm shift towards a human rights-based social model of disability would enable more students with special needs and neurodiversity (rather than just a narrowly defined 1%) to benefit from equal opportunity measures (Baker & Leonard, 2017; Dolmage, 2017). There is a growing number of support services in international higher education (hereinafter: HE) institutions consider knowledge transfer and assessment methods that effectively focus on the advantages of brain-wiring variations (Pollack, 2009; Armstrong, 2011; Doyle, 2020), discarding deficit thinking. Empirical evidence from prior literature show a still persistent stigmatization of invisible specific learning disabilities lead to a dilemma for many when it comes to following through their diagnostic process or requesting and accessing reasonable educational support (Anderson et al., 2017; Dobson, 2019; Clouder et al., 2020; Lightfoot et al, 2018; Pino & Mortari, 2014; Sewell, 2022).

Our research can be interpreted as a situational analysis. My research questions outline the investigation from three perspectives. (1) On the one hand, the exploratory study looked at existing inclusive models and assessment tools and devised a new research toolkit that combined instruments that result in both quantitative and qualitative data that best evaluate the educational environment of our underrepresented focusgroup; on the other hand, it explores the characteristics of neurodivergent students and their opinions on university inclusion; and thirdly, it seeks to identify the components of the institutional dimension that can be linked to inclusion. In this presentation, we will introduce our research toolkit suitable for examining the inclusion of neurodiverse and special needs students in HE (Tószegi, 2023, 2024). From this model toolkit, we will discuss the results of the Student Perception of University Inclusion (SPUI), which was validated in Hungarian as a survey instrument for students, and was first adapted for HE by Galician researchers (Losada Puente et al. 2021) based on the "Index for Inclusion" (Booth & Ainscow, 2002). We will also share the results of a teacher questionnaire, which was first piloted at the University of Pécs based on the CHARM-EU consortium's Inclusion TipList for Educators (Fazekas, 2021).

First, we have completed a systematic literature review based on the Prism protocol (Peterson et al., 2017) and followed the steps of scoping reviews (Xiao & Watson, 2019) to narrow down the most relevant literature and summarize research results on the topic of inclusion of neurodivergent students in HE. From the model toolkit, our Google Form student questionnaire titled #PTEinclusionindexsurvey (magyarul EBAV-skála) contains 56 items, which we have validated in Hungarian language with 312 university student respondents by running statistical tests for reliability and normal distribution on the items of the original SPUI-scale grouped into 6 factors (N:36). We have also added 4 additional parts that we considered vital for our own investigation: a sub-question (7b) examining the extent of discrimination against various social groups in Hungarian HE (N:1); a complex question including 10 thematic pillars from

the Inclusion TipList for CHARM-EU Educators, where students rated faculty practices on a Likert-scale (N:1); sociographic data (N:18) of the respondents (sensitive data was optional); and a set of open-ended questions, where respondent give Brief Constructed Responses about their own experiences, opinion or suggestions along the Process-based Model of Inclusion (Varga et al., 2021).

In addition, we've also created a teacher questionnaire, first piloted at the University of Pécs based on the CHARM-EU consortium's Inclusion TipList for Educators (Fazekas, 2021). This faculty questionnaire contains items divided into eight thematic pillars (N:55) with most statements needing evaluation on a Likert scale (N:52), others as multiple-choice questions (N:2) and one was an open-ended question (N:1). The items translated into Hungarian were distributed in a Google Forms survey via the Neptun database and were completed on a voluntary basis by teachers (N=108).

The results of the SPUI-scale at University of Pecs show that:

- the inclusion indices of people with disabilities are consistently lower than those of the control group, so it is not enough to give preferential treatment during the admissions process to HE.
- the index of the neurodivergent student group is not far from that of students with other disabilities (except for F4 – Organization of support for student diversity), where it is significantly lower than theirs.
- the inclusion indices of students with chronic or long-term illnesses are partly close to those of people with disabilities (F2, F3, F4, F5), partly slightly lower (in the categories F1- Building an inclusive community, F6 – Mobilizing resources).

The results of our piloted CHARM-EU TipList-based faculty questionnaire shows that in terms of providing multiple assessment options, faculty members who completed the questionnaire reflected more strictly on their own practice (O:3.5/5) than their students evaluated them, which is confirmed by the result that 22% of them do not think it is their job to differentiate instruction or to provide alternative assessments. Although most faculty members rated their ability positively to consider the educational needs of neurodivergent students (O:4.1/5), 53% admit that they have little experience in supporting such students. This shows a clear gap between knowledge and practice.

Our data supports that the lack of transparency from neurodivergent students and faculty members alike poses further risks in the form of masking differences, which tend to jeopardize respondents' work-life balance, mental health and equitable participation (Dwyer, 2023; Price; 2022). In order to challenge the underrepresentation of individuals with special needs in academia, literature suggests incorporating university-wide inclusion strategies with leadership support, mentoring programs that promote the diverse needs of students, even those needs of students with less visible disabilities, such as campus events that target the mental wellbeing of university citizens and initiatives that break down structural barriers in front of innovative- and richer in problem-solving academic environment that truly value diverse thinking styles and neuroaffirmative approaches (Gillespie-Lynch et al., 2022; Lipka et al, 2019, Mellifont, 2021; Morina & Biagiotti, 2022; Nieminen & Pesonen, 2022; Taneja-Johansson, 2021). HE must considering reasonable adjustments and built-in measures for individuals with changed working capacities and long-term/chronic illnesses in the Performance Indicator Systems, instead of exempting them. Our results also highlight that both the control group and students with special needs feel that an inclusive environment is one of the prerequisites for quality higher education, and Support Services, the Equal Opportunities Commission were considered an added value to UP (Toszegi, 2024). Therefore, we emphasize both the application of Universal Design of Learning as a framework together with assessing reasonable individual accommodations to maximize the learning opportunities and learning outcomes of diverse student population (Fazekas, 2018; Bracken & Novak, 2019).

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PSYCHOLOGY AND PHYLOSOPHY IN EDUCATION

Identity, Well-Being, and Learner Disposition: A Qualitative Exploration of Vocational Learners' Experiences

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identity development; well-being; learner disposition; vocational education; technical training

Identity formation and well-being are increasingly recognized as integral components of educational development, yet they remain under-examined in technical and vocational education and training (TVET) contexts. Most identity research has evolved from Erikson's (1968) psychosocial theory and Marcia's (1966) identity status model, emphasizing adolescence as a critical stage for self-definition and commitment formation. Recent perspectives, however, view identity development as a continuous process shaped by social, cultural, and institutional influences (Branje, 2022; Crocetti et al., 2023). In the context of vocational education, studies have shown that hands-on skill acquisition fosters competence and professional identity (Fejes & Köpsén, 2014; Shen et al., 2024; Yan, 2025), and yet limited empirical work has explored how these experiences interact with learners' psychological well-being and dispositional factors such as self-efficacy, persistence, and motivation. This study, therefore, addresses an important gap by examining how vocational students negotiate their sense of self and well-being within demanding learning environments.

The purpose of this qualitative study was to explore the interconnections among identity, well-being, and learner disposition among automotive engineering students in Kenyan TVET institutions. Specifically, the study sought to understand how learners construct and sustain a sense of identity and belonging, how emotional and motivational states influence their engagement, and how dispositional attributes support resilience and success. The guiding research question was: How do vocational learners experience and negotiate identity and well-being through their dispositions and learning environments? The study was motivated by the need to foreground the psychosocial dimensions of learning in vocational settings, where educational research has often prioritized technical outcomes over affective and identity-related processes.

A qualitative exploratory design grounded in Identity Process Theory (Breakwell et al., 2022) and the constructivist paradigm was adopted. Fifteen (N = 15) automotive engineering students enrolled in public TVET institutions were selected through purposive sampling to ensure gender and year-level diversity. Semi-structured interviews lasting 30 – 45 minutes were conducted in English, focusing on learners' self-perceptions, motivations, relationships, and aspirations. Data were transcribed verbatim and analyzed thematically following Braun & Clarke's (2006) six-phase framework: familiarization, coding, theme generation, review, definition, and reporting. Credibility was strengthened through peer debriefing, intercoder reliability checks, and participant validation. Ethical approval was obtained, and confidentiality was maintained through pseudonyms and voluntary consent.

Three interrelated themes emerged.

- i. Identity Negotiation and Vocational Belonging: Learners described vocational identity as both a personal achievement and a social struggle for recognition. Mastery of practical skills fostered pride and self-worth, while societal stigma toward manual trades produced tension between aspiration and acceptance.

ii. Emotional Balance and Meaning in Learning: Students linked well-being to purpose and autonomy. Supportive relationships with instructors and peers enhanced confidence, whereas financial and academic stress eroded motivation.

iii. Dispositional Resilience amid Uncertainty: Persistence, curiosity, and self-belief enabled learners to reinterpret challenges as opportunities for growth. Those with fragmented identity or low self-efficacy experienced avoidance, disengagement, and diminished well-being.

These findings suggest that learner disposition acts as a mediating mechanism between identity coherence and psychological well-being.

The study concludes that identity and well-being are mutually reinforcing, context-dependent processes in vocational education. Learners' sense of who they are and what they can become develops through reflection, recognition, and interaction with institutional cultures. Therefore, first, educators and policymakers should incorporate identity-supportive pedagogies that include structured mentorship, reflective practice, and peer collaboration to foster a sense of belonging and motivation. Second, teacher education programmes should include training on adolescent and young-adult identity development, while institutional policies should guarantee equitable access to guidance, counselling, and industry exposure. Future research could use longitudinal or mixed methods designs to trace how identity trajectories affect well-being and career adaptation over time. By recognising the psychosocial dimensions of learning, vocational institutions can nurture not only technically skilled but also resilient, self-aware graduates prepared for lifelong learning and meaningful societal participation.

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Exploring Mentor–Parent Dynamics in the Invisible School Mentoring Program

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parental involvement, Invisible School Program, mentoring, mentor–parent relationship, educational inclusion

Several studies highlight that mentoring as a pedagogical method is gaining emphasis in Hungarian educational practice, particularly as a tool for supporting disadvantaged students (Bander et al., 2015; Bíró, 2022; Kocsis & Bocsi, 2022). International research indicates that the effectiveness of mentoring programs depends strongly on supportive contextual factors such as parental involvement and school climate (DuBois et al., 2011; Karcher, 2005). The Invisible School (Láthatatlan Iskola, LI) program represents a unique mentoring model connecting university students and adults with children living in temporary homes.

The primary goal of this research is to explore the forms and roles of parental involvement within the mentoring processes of the Invisible School program. Specifically, the research aims to identify the intensity of parental engagement, examine the characteristics and impacts of mentor–parent relationships on the success of mentoring, and formulate recommendations for enhancing mentoring initiatives of this kind. By understanding how parents participate and interact within the mentoring context, the research seeks to contribute to a more holistic model of support that strengthens collaboration between mentors, families, and (educational) institutions.

Data for our research were collected from mentors who participate or have participated in the Invisible School program. Participants (N=59) completed a structured questionnaire that included demographic questions (e.g., gender, length of mentoring experience, pedagogical background) and several thematic subscales: mentor–mentee relationship and perceived success of mentoring, mentor–parent interaction, and attitudes toward parental involvement. The questionnaire contained both quantitative and qualitative items. Quantitative sections included frequency-based and Likert-scale questions measuring mentors' perceptions and experiences, while open-ended items invited respondents to elaborate on challenges in collaborating with parents. Furthermore, among the qualitative items, one prompt used a metaphorical approach, encouraging mentors to portray their relationship with parents through symbolic comparisons (e.g., a scene, character, natural phenomenon, or object). The analysis is currently ongoing and primarily exploratory in nature. Quantitative data are examined through descriptive statistics, while qualitative responses are analyzed using deductive coding to identify recurring patterns. The findings are expected to reveal how mentors conceptualize parental engagement and provide insights for developing mentoring programs.

Preliminary findings indicate that while most mentors (89%) consider parental involvement essential, only 23 out of 59 report maintaining regular communication with the parents about the mentee's development. Barriers include limited contact opportunities, parents' low availability, and social disadvantage, whereas informal encounters and institutional support act as facilitators in forming connection. To gain deeper insight into mentor–parent relational dynamics, a metaphor-based qualitative analysis of 50 responses was conducted which revealed five relational code families: cooperative (n=9; e.g., “a garden we care about together”), formal (n=12; e.g., “bank letters”), distant or non-existent (n=15; e.g., “Columbo's wife”), tense (n=9; e.g., “two tigers in a zoo”), and hierarchical (n=5; e.g., “if I had been the parent for the

parent”). These patterns underscore the diversity of mentor-parent dynamics and will guide further analyses examining the link between relational quality and perceived mentoring success.

The findings reveal that parental involvement in the Invisible School mentoring program is often constrained by social and structural barriers, despite mentors’ strong recognition of its importance. The metaphor analysis shows that relationships vary along a continuum from cooperative to distant or hierarchical, reflecting differences in emotional closeness, communication, and perceived roles. These patterns suggest that meaningful parental engagement requires supportive institutional structures and shared responsibility—an interpretation that aligns with international research emphasizing the contextual nature of family involvement in mentoring and education. Within the Invisible School, limited opportunities for direct contact and families’ social disadvantage often hinder collaboration, while openness and informal encounters foster trust. Strengthening mentor–parent communication, clarifying mutual expectations, and providing institutional mediation could enhance engagement and the overall effectiveness of mentoring.

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The spirit of service: education through Franciscan philosophy as a path to fraternity, peace, and social justice

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education, service, Franciscan philosophy

By analyzing the pedagogical approaches inspired by Franciscan values, the aim is to highlight effective strategies for promoting fraternity, peace, and justice through education, thereby contributing to the advancement of socially responsible citizenship and transformative learning experiences. The objective is to examine the existing research on role of education in promoting social justice, responsible citizenship in Franciscan principles, in order to synthesize current knowledge, reality and identify how these principles are integrated and operationalized across diverse educational settings.

While some scholars emphasize the emancipatory and reflective dimensions of Franciscan pedagogy (Lucero & Ortiz, 2023) ("Competencias del Saber Ser, Pedagogía Fr...", 2022), others highlight challenges in balancing spiritual foundations with contemporary educational demands (Forero, 2008) (Forero, 1997).

Franciscan Pedagogy is defined as an emancipatory and critical act, designed to cultivate technical-scientific skills and human capabilities. These dimensions are crucial for building knowledge, understanding the meaning of life, and accountability.

Goals of the study :

- Identification and synthesis of strategies promoting social justice and responsible citizenship inspired by Franciscan values.
- Highlight the effectiveness of Franciscan educational approaches to community engagement and social transformation.

The practical significance of integrating Franciscan values is underscored by the increasing need for educational models that promote social cohesion and ethical responsibility amid global challenges (Ghosh, 2021) (Cruz & Mesquida, 2023). Existing literature reveals a fragmented understanding, with some studies focusing on spiritual and ethical dimensions ("Opening My Eyes Building Nursing Student...", 2023) (Jomen & Mercado, 2025), while others emphasize pedagogical strategies or institutional identity (Carvajal, 2021) (Moro & Veiga, 2024) that are of interest to us at present.

The study uses a qualitative and hermeneutical approach based on philosophical and pedagogical analysis. It is based on documentary evidence cataloged in scientific libraries such as the library of the Pontifical Antonianum University, , also classical Franciscan writings, and theological commentaries.

Data collection followed three steps:

Textual analysis of Franciscan sources to identify key values like humility, service, and fraternity.

Review of Franciscan educational practices

Comparative thematic synthesis linking historical insights to modern pedagogy.

Using thematic coding and a hermeneutic interpretation, the study analyses recurring ideas such as learning as service and integral education. The goal is to promote a Franciscan-inspired pedagogy that transforms education into a path of service, fostering fraternity, peace, and justice.

The findings from analyses will provide robust evidence supporting the integration of Franciscan philosophy into educational frameworks. The data highlighted improvements in students' sense of community, empathy, and commitment to social justice, justifying the need for a shift in teaching practices towards a more service-oriented and values-based approach. This evidence can be used to advocate for curriculum reforms that align with the principles of fraternity, peace, and social justice as espoused by Franciscan teachings.

The studies encompass historical analyses, pedagogical reflections, and empirical investigations focusing on the integration of Franciscan values into curricula, teacher formation, and community engagement. Education, understood not only as the transmission of knowledge but also as the integral formation of the person, encompassing intellectuality, spirituality, and service, becomes a privileged place for embodying the love of serving others, fraternity, peace, and justice.

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Australia Project: A Case Study on Multimodal Learning and Motivation

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multimodal learning; enquiry-based learning, art-based education; creative cartography; hands-on learning

Multimodal learning refers to educational environments where instructional materials are presented through multiple sensory modes, giving students choice in both content interaction and instructional methods (Sankey et al., 2010). This approach often combines visual and verbal inputs, which is more effective than relying on a single channel (Paivio, 1990; Moreno, 2006). With the integration of digital technologies, multimodal learning has become more prevalent in schools (Ryan et al., 2010). Research suggests that such methods can enhance intrinsic motivation (Chen & Jamiat, 2023) and reduce cognitive load (Sweller, 2005). These effects align with Self-Determination Theory, which highlights autonomy, competence, and relatedness as key to fostering intrinsic motivation (Ryan & Deci, 2000). Constructivist pedagogy supports this by emphasizing active, hands-on learning (Minner et al., 2009).

Enquiry-based and scaffolded projects in STEM have also been shown to boost motivation (Lin & Tsai, 2021), though some studies claim that digital platforms specifically enhance motivation due to their stimulating effects (Girón-García & Gargallo-Camarillas, 2020). Measuring the impact of art pedagogy on motivation is complex, but evidence shows high motivation improves creativity (Kadyrov et al., 2024), and successful art-based activities promote intrinsic motivation (Chad-Friedman et al., 2018) as well as soft skills (Hawawri & Noor, 2020). Historical and modern creative geography projects continue this process-driven tradition (Harris, 2014; Tyner, 2018), with competence and self-efficacy playing significant motivational roles (Rostan, 2010; Dahlem, 2023).

The purpose of this study is to explore and compare motivational components across two types of multimodal learning: one that uses enquiry-based methods with online resources, and another that involves a creative cartography activity focused mainly on hands-on, analogue tasks. Our hypotheses are the following:

H1: Different components of motivation will be dominant during the two stages of the case study.

H2: There are possible gender differences between the component variability.

During a three-week onsite study, two classes of 10th grade students engaged in a multimodal Geography project focused on Australia's physical and social geography. The project began with enquiry-based activities, using a mosaic method that grouped students according to their strengths or needs. Students collaboratively completed differentiated tasks, such as map reading, climate chart analysis, and visualizing geographical data. Since students were already familiar with the mosaic method from previous lessons, it likely did not influence their motivation during this project.

In the second lesson, students learned about convict quilts and planned to collaboratively create a quilted map of Australia, highlighting geographical and cultural characteristics. Groups were each assigned a state, territory, or ocean area, and tasked with researching relevant features to visually represent on the map. In the art-based phase, students drafted designs on paper, which they then transferred to canvas. Task division within groups was student-led, but all used the same medium simultaneously.

At the end of each phase, students completed the Instructional Materials Motivation Survey (Keller, 2010), measuring attention, relevance, confidence, and satisfaction. Data were analyzed through descriptive statistics and a Bayesian t-test to identify motivational changes, accommodating the small sample size and employing a standardized approach with a Cauchy prior.

The findings indicate potential gender-related variations in motivational responses across different multimodal learning approaches.

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Mapping Belonging: Insights from a Pilot Study Exploring Wellbeing Among International Students Using Ego-Centric Network Cards

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ego-centric network cards, international students, wellbeing

International students frequently encounter a unique set of psychosocial and academic challenges as they navigate new cultural and educational contexts. Adjusting to unfamiliar academic practices, communicating in a non-native language (Wilczewski & Alon, 2023) and managing the effects of cultural transition can contribute to stress, isolation, and reduced wellbeing (Larcombe et al., 2024). These experiences are often intensified by the disruption of existing social networks and the need to rebuild connections in a new environment. Consequently, it is essential that higher education institutions implement inclusive policies and evidence-based support mechanisms that foster belonging, resilience, and academic success among international student populations.

In response to these challenges, our study seeks to investigate the factors that promote resilience and wellbeing among international students in higher education. Specifically, we examine how individual coping strategies and the availability of personal and institutional resources contribute to students' capacity to adapt and thrive in unfamiliar academic and social settings. By adopting an ego-centric network approach using network cards (Sántha, 2017), this pilot study aims to map the social structures and support systems that underpin students' sense of inclusion and belonging.

This study uses ego-centric network analysis to examine the social networks and support factors that contribute to international students' wellbeing. Participants mapped people, activities, and circumstances that positively influence their mental health using ego-centric network cards, based on hierarchical mapping techniques. Items were positioned on concentric circles to visually represent their relative importance or emotional closeness to the participant, with elements nearer the centre indicating greater significance (Hollstein & Pfeffer, 2020). The approach combines quantitative and qualitative insights, as participants also explained—verbally or in writing—the rationale behind their network construction (Sántha, 2017). This visual methodology provides insight into the structure and significance of support networks from the students' perspectives.

Analysis of the ego-centric network cards involved organizing the identified concepts into a matrix, with concentric circles represented horizontally and individual participants arranged vertically. Inductive coding of 714 words of textual data yielded nine thematic categories: family, friends, food and cooking, physical activity and sport, self-care, room-/classmates and travel, university, and entertainment. This categorization facilitated a systematic comparison of wellbeing-related factors across participants and allowed for the integration of visual and textual data, providing a comprehensive view of the resources and relationships that support international students' wellbeing.

Our study aims to provide methodological insights and empirical findings that may contribute to a deeper understanding of the mechanisms that foster resilience and wellbeing within international student populations, and thus support their academic adaption as well. Findings may offer valuable implications for designing responsive support services that promote inclusion and mental health in higher education contexts by enhancing institutional strategies to address the specific needs of international students navigating complex psychosocial and academic transitions.

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Help-seeking behavior: Are students more likely to ask male teachers for help in mathematics?

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gender, mathematics, help-seeking, confidence, stereotypes, equity, teaching

In many schools, there is a common stereotype that boys are naturally better at mathematics than girls. Previous research shows that this stereotype is strong and sometimes unconscious. For example, studies such as Tiedemann (2002) found that a teacher's accompanying stereotype can affect the way they evaluate students' abilities, sometimes perceiving boys as naturally talented and girls merely as hard workers. In addition, Lindner et al. (2022) discovered that even teachers who believe in equality may still hold these hidden biases. These stereotypes do not remain silent; they influence the school environment. Alnahdi & Schwab (2023) note that these biases may also impact the teaching methods applied, with male students sometimes perceiving teachers as technical professionals. This study examines how these stereotypes affect a very practical part of the student experience: the student's decision to seek help from their teacher.

The aim of this study was to determine whether the gender of the mathematics teacher affects the comfort and satisfaction of students when seeking academic help. Although students often claim that the teacher's gender is not important, the research wanted to examine whether their behavior truly tells a different story. The investigation was guided by two main questions: first, do students actually show a preference for seeking help only from male or female mathematics teachers? Second, if a preference exists, what are the causes — is it convenience, teaching style, or unconscious beliefs? The goal was to uncover potential hidden bias that can create an unfair academic environment.

This study used a simple survey to collect data from 30 high school students in Kenya (18 women, 12 men). An online anonymous questionnaire asked students about their help-seeking habits, their comfort level in approaching the teacher for help (on a scale of 1 to 5), and their perceptions of teaching methods. It also directly asked whether they believe the teacher's gender affects their decisions. For data analysis, I used basic statistics to calculate average satisfaction scores and compare results between male and female teachers. Finally, I summarized students' written responses to the question, which led to an understanding of the 'why' behind the numbers.

The results revealed a clear contrast. While 83% of students explicitly stated that the gender of their teacher did not affect their decision to seek help, the data on their experiences told a completely different story. Students reported much higher satisfaction with help received from male teachers (4.32 out of 5) than from female teachers (3.27 out of 5), a difference that was statistically significant. Furthermore, 78% of students indicated they would recommend a male teacher to others, compared to only 42% for a female teacher. An analysis of teaching styles revealed a pattern: students attributed greater mathematical authority to male teachers, while female teachers appeared friendly and humorous but not technically authoritative.

This study concludes that there exists a 'hidden barrier' of gender biases in mathematics classrooms. Students genuinely believe in gender equality, yet their implicit biases lead them to value academic support from male teachers more. This means that female mathematics teachers do not receive systematic recognition, and students may not fully utilize all the available experts. These findings align with and reinforce existing research, such as Starr & Simpkins (2021) on the 'stereotype effect.' To create a truly equitable classroom, we recommend that schools go beyond their assumptions of equality and

take proactive measures. This should include: 1) open conversations with students about unconscious biases, 2) exercises for teachers to recognize their own stereotypes, and 3) use of diverse examples in the mathematics curriculum to break harmful stereotypes.

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OPERATIONAL CHALLENGES IN EDUCATION

Integrative Review of Kenya's Policy Agenda for TVET

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TVET, STEM, Policy, TVET teachers, Kenya

The Government of Kenya recognizes the important role that Technical and Vocational Education and Training (TVET) plays in supporting economic and social development. Accordingly, the government has developed an expansive policy agenda aimed at strengthening TVET provision in Kenya. These include National Education Sector Strategic Plans, Sessional papers, and Reports of Educational Commissions (Ministry of Education, 2018, 2023; PWPER, 2023; Vision, 2007). However, this policy agenda is spread across multiple documents, limiting clarity, accessibility, and the ability to review and critique the policies effectively.

Accordingly, a need exists to review these policy documents and consolidate them into a single, accessible document. To meet this need, this study sought to conduct a comprehensive review of key policy documents to identify Kenya's TVET policy agenda and present the agenda in a consolidated form. This will enhance policy review and critique, ensuring that TVET in Kenya benefits from sustainable governance and leadership. Thus, beyond presenting the policy agenda in a consolidated form, the study also sought to critically evaluate the policy agenda and identify its likely outcomes, and whether they guarantee accessible, equitable and quality TVET that is not just instrumental to meeting labour needs, but emancipatory where TVET empowers individuals to understand and challenge the social, economic, and political structures that constrain their lives. To meet this objective, the study was guided by the following three research questions:

- o What is Kenya's policy agenda for TVET?
- o What are the specific plans, initiatives and recommendations by the government to achieve the desired outcomes in TVET?
- o What are the likely outcomes of the policy agenda and associated plans, initiatives and recommendations? Do they guarantee accessible, equitable and quality TVET?

The study employs an integrative review of key Kenyan TVET policy documents from the last decade. The process involves a systematic identification and extraction of policy statements, strategic goals, implementation initiatives, and stated desired outcomes. This data are then subjected to a critical policy analysis. The analytical framework explicitly interrogates the policies along two key dimensions: first, the conceptual orientation towards instrumentalist versus emancipatory goals, assessing the vision of the "ideal graduate" and TVET's role in society; and second, the practical challenges of implementation, coherence, and resourcing. The review focused on key policy documents, including Medium-Term Plans, Sessional Papers, and Education Sector Strategic Plans. A critical perspective was adopted to assess the feasibility and likely impact of the policies, offering recommendations for more equitable and sustainable outcomes.

The analysis reveals that Kenyan TVET policy is predominantly conceptualized as an instrument for poverty reduction and economic development, primarily through the provision of employable skills. The policy

documents also indicate that improving TVET and strengthening STEM education are key priorities for the Government of Kenya.

The policy serves as a strategic framework to navigate and address the challenges that limit TVET's ability to foster economic growth in Kenya. The policy framework identifies the challenges that TVET faces, and specifies specific initiatives to address those challenges. These challenges include funding constraints, limited trainer capacity, and negative parity of esteem and regional disparities in access. Other challenges relate to deficiencies in the regulatory framework itself, leading to systemic policy implementation challenges. Accordingly, the Government commits itself to promoting TVET via increased investments in infrastructure, teacher training, curricula review and improving policy coherence and implementation.

Overall, Kenya's TVET policy reflects strong intent but is constrained by a narrow and instrumental view of TVET and suffers implementation challenges. While access is expanding, quality and relevance continue to be limited due to curricula that is not aligned with contemporary industry practices, reliance on ineffective instructional practices, and the limited capacity of trainers to provide quality instruction. Moreover, examination-oriented teaching and learning approaches hinder educational practices that foster critical thinking, innovation, and the broader civic competencies required for transformative and emancipatory education. The narrow conception of TVET as a tool for producing manpower limits its ability to play a truly transformative role in the society. Policymakers should critically reflect on the policy agenda and envision a TVET sector that is truly emancipative. Only then will the policy and its associated plans, initiatives and recommendations be transformative while ensuring accessible, equitable and quality TVET.

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Exploring a school-based mentoring program at a secondary resource school in Cambodia

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school-based mentoring, secondary resource school, mentee, professional development, school's culture of working

This study provides some findings on the to explore the needs and techniques of mentors regarding mentoring new teachers, to identify the role of the mentor in the mentoring program at Secondary Resource School and to find out the benefits of the mentoring program at a Secondary Resource School.

This study is drawn based on the results of analyses of data obtained by interview at Samdach Ouv High School. The conclusion is drawn as follows: School-based Mentoring programs that promote academic success and social behaviors in adolescents are of interest to school social workers. Because these programs are relatively new, there are some benefits for participants.

Beyond the characteristics of research objectives and research questions, this study conducted a case study of qualitative research because the researcher investigates on the current of Mentoring Program and how Mentoring Program effect on teaching and learning at a Secondary Resource School. Qualitative research is focused on understanding the meaning people have constructed and normally engages an inductive strategy to analyze data (Merriam, 1998). Bromley (1990, as cited in Maree 2007, p.75) defines a case study as a systematic inquiry into an event or a set of related events which aims to describe and explain the phenomenon of interest. Therefore, a case study was deemed relevant as the study sought to explore the school leaders' and teachers' perception of Mentoring Program.

The finding outcome evaluations of school-based mentoring programs to compare without mentoring program, assessing whether best practices were incorporated into the program service structure. and best practices, determine assessment methods, and evaluate participants' outcomes.

This program is guided by the mentor focused on teaching and learning that incorporate recommendations from best practice models for all high school. However, questions remain about dosing, program outcomes and other issues specific to school-based mentoring programs. These finding also suggest that evidence supporting the benefits of school-based mentoring programs has contributed to the school in the purpose of improving the quality of education and professional development. However, the next generation of researcher should use more rigorous research methods to confirm these findings. Recommendations for school academic outcome on program design and evaluation are also presented.

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Strengthening Leadership Capacity and Conflict-Prevention Policy in Hungarian Public Service Education: Evidence from Mediation Training and Institutional Case Studies

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leadership development; educational policy; mediation training;

Leadership development and conflict-prevention training have become essential components of professional education globally, particularly within public service sectors responsible for social stability and citizen engagement. In many countries, including Hungary, law enforcement officers increasingly require advanced communication, mediation, and de-escalation competencies to manage complex interpersonal and community-level conflicts. Existing research in educational leadership (Bush, 2018; Leithwood & Sun, 2020) highlights that leadership capacity and emotional intelligence significantly influence institutional performance and learner outcomes in professional training environments. Studies on mediation and conflict-resolution education (Boulle, 2021; Wall & Dunne, 2022) further show that structured conflict-prevention curricula improve decision-making, reduce escalation, and promote more ethical, community-oriented practice.

However, Hungarian public service education exhibits variation in curriculum design, instructional methods, and policy implementation across training institutions. Recent evaluations of law enforcement training (KSH, 2023; Public Service Development Reports, 2022–2024) suggest gaps in reflective practice, scenario-based learning, and the integration of emotional and psychological well-being. These gaps limit the transfer of mediation competencies to real operational contexts. This background frames the present study, which examines leadership development and mediation training in Hungarian law enforcement education, situating it within broader discussions of educational policy, professional competence formation, and institutional leadership reform.

The primary purpose of this study is to evaluate how leadership development and mediation-focused training can strengthen conflict-prevention capacities within Hungarian law enforcement education. The motivation arises from observed gaps between national educational policy expectations and the realities of curriculum implementation, instructional quality, and institutional leadership practices. While policy documents emphasize communication, de-escalation, and ethical decision-making as core competencies, preliminary assessments show inconsistent integration of these elements across training institutions. This discrepancy raises questions about how leadership formation and conflict-prevention pedagogy can be more effectively aligned with professional demands and organisational culture.

The study seeks to understand the extent to which mediation training contributes to officers' ability to assess conflicts, communicate effectively, and apply de-escalation strategies in operational contexts. Accordingly, the research is guided by the following central question: How do current leadership-development and mediation-training programs influence the acquisition and practical transfer of conflict-prevention competencies among Hungarian law enforcement trainees?

Supporting questions further explore (1) how policy frameworks shape training design and implementation, (2) how trainees and educators perceive the relevance and pedagogical quality of existing programs, and (3) what institutional and psychological factors facilitate or restrict skill transfer.

The overarching hypothesis is that mediation-focused leadership training—when grounded in experiential learning, reflective practice, and supportive institutional leadership—significantly enhances officers’ conflict-prevention competencies. By identifying strengths, gaps, and opportunities for improvement, the study aims to inform future educational policy reforms and contribute to the creation of a more coherent, competency-based professional training system.

This study employed a mixed-methods research design to evaluate the effectiveness, policy alignment, and pedagogical integrity of leadership development and mediation training within Hungarian law enforcement education. The methodology was designed to generate both broad quantitative insights and in-depth qualitative understanding of how conflict-prevention competencies are taught, perceived, and implemented across different public-service training institutions.

Quantitative Data Collection:

A structured survey was administered to 212 law enforcement trainees who completed leadership or mediation-focused modules between 2022 and 2024. The survey measured four key dimensions:

- (1) perceived skill acquisition in communication, conflict assessment, and de-escalation;
- (2) instructional quality and relevance of training content;
- (3) emotional and psychological readiness to apply mediation skills;
- (4) organisational and leadership support for transferring learned skills into practice.

Responses were analysed using descriptive statistics, cross-tabulation, and comparative means testing to identify differences across institutions and training formats.

Qualitative Data Collection:

To enrich and contextualize the quantitative findings, 26 semi-structured interviews were conducted with training instructors, curriculum developers, policymakers, and senior officers responsible for leadership strategy and professional development. These interviews explored experiences with training implementation, perceptions of institutional culture, and perceived obstacles to effective conflict-prevention education. Additionally, three institutional case studies were conducted—representing a national academy, a regional training center, and an innovation-focused pilot unit—to examine real examples of curriculum delivery, leadership influence, and pedagogical variation.

Document and Curriculum Analysis:

National training standards, competency frameworks, and institutional policy documents from 2020–2024 were reviewed to assess their consistency with international best practices in leadership and mediation pedagogy. Curriculum materials—including lesson plans, assessment tools, and training scenarios—were analysed to evaluate pedagogical design, alignment with adult-learning principles, and integration of experiential learning.

Classroom and Training Observation:

Selected training sessions were observed across the three case-study institutions. Observation focused on facilitation methods, trainee engagement, use of conflict scenarios, and opportunities for reflective practice. Observational notes were coded to identify patterns in instructional quality and leadership influence.

Data Analysis Procedures:

Quantitative data were analysed using SPSS to identify trends, institutional variations, and correlations between training design and perceived learning outcomes. Qualitative interview transcripts and observation notes were analysed through thematic coding to identify recurring themes related to leadership, policy implementation, learning environment, and organisational culture. Triangulation across data sources strengthened the validity and reliability of findings, enabling a comprehensive assessment of how training design, policy expectations, and institutional leadership collectively shape conflict-prevention capacity.

This methodological approach provides robust evidence to support arguments for improving leadership training, aligning educational policy with practice, and enhancing mediation-based teaching strategies to strengthen conflict-prevention in Hungarian law enforcement education.

Preliminary findings from both the quantitative and qualitative data indicate that mediation-focused leadership training has a measurable positive impact on the development of conflict-prevention competencies among Hungarian law enforcement trainees. Survey data show that 78% of participants reported increased confidence in communication, conflict assessment, and de-escalation strategies after completing the training modules. Furthermore, trainees from institutions implementing scenario-based and experiential methods demonstrated significantly higher competency gains compared to those exposed to traditional lecture-based instruction.

Case study comparisons reveal substantial variation in training outcomes depending on institutional leadership and policy alignment. In the most innovative pilot institution, trainees achieved a 45% improvement in de-escalation performance scores, while traditional institutions reported only modest gains. These differences suggest that leadership commitment, reflective learning culture, and structured mentoring are crucial determinants of successful skill transfer.

Qualitative interviews and observations also highlight notable challenges. Trainees consistently reported difficulty applying mediation skills in operational contexts due to organisational culture, hierarchical decision-making, and limited opportunities for reflective practice. Educators emphasized the need for updated digital tools, consistent policy guidance, and more comprehensive instructor training in mediation pedagogy.

Based on current evidence, the anticipated outcomes of the full study include:

1. A clearer understanding of how leadership practices and policy frameworks influence the effectiveness of conflict-prevention training across public-service institutions.
2. Identification of critical gaps—such as insufficient experiential learning, weak policy implementation, and limited emotional well-being components—that reduce the long-term impact of mediation training.
3. Development of a policy-informed competency model integrating leadership, mediation, emotional intelligence, and reflective practice for Hungarian law enforcement education.
4. Evidence-based recommendations for improving teaching methods, strengthening organisational support systems, and enhancing alignment between national educational policies and institutional practices.

Overall, the study is expected to demonstrate that effective mediation training—supported by strong institutional leadership, clear policy direction, and modern pedagogical approaches—can significantly enhance conflict-prevention capacity, improve officer well-being, and contribute to a more responsive and trustworthy public service system.

The emerging evidence suggests that mediation-focused leadership development can play a transformative role in strengthening conflict-prevention capacities within Hungarian law enforcement education. The study concludes that training programs grounded in experiential learning, reflective practice, and emotional-intelligence development yield substantially higher competency gains than traditional lecture-based approaches. These findings are consistent with international research in educational leadership and conflict-resolution pedagogy, which emphasizes the importance of active learning, supportive leadership, and coherent policy frameworks in professional competence formation.

However, the results also reveal that the impact of mediation training is significantly influenced by institutional culture and the degree of alignment between national education policies and local implementation. Institutions demonstrating strong leadership engagement, clear pedagogical vision, and structured mentoring systems achieved the most meaningful improvements in trainee performance. In contrast, institutions lacking policy coherence or leadership support showed limited progress, despite offering similar training content. This indicates that policy design alone is insufficient without corresponding institutional leadership and organisational readiness.

Based on these findings, several key recommendations emerge. First, national training authorities should adopt a unified competency framework that integrates mediation, communication, emotional intelligence, and resilience-building as core components of leadership education. Second, training institutions should expand scenario-based learning, peer coaching, and supervised practice to strengthen skill transfer into real-world contexts. Third, instructor development programs must prioritise mediation pedagogy, digital training tools, and trauma-informed educational practices. Finally, organisational reforms—such as performance monitoring, leadership coaching, and the integration of well-being initiatives—are necessary to create a professional environment conducive to sustained behavioural change.

In summary, the study is likely to conclude that meaningful improvement in conflict-prevention capacity requires not only curriculum reform but also system-level alignment between policy, leadership, pedagogy, and organisational culture. These insights contribute to current knowledge by offering a contextualised, evidence-based understanding of how leadership and mediation training can be effectively integrated into Hungarian public service education, ultimately strengthening both professional competence and public trust.

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Observation as a Preparatory Experience In Preparing Professional Documents: A Comparative Study of Pre-Service Teachers in Machakos and Makueni Counties, Kenya

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shadowing, teaching practice, pre-service teachers, teacher preparation, field experience

This study examined the impact of shadowing (observation) experiences on the teaching practice performance of pre-service teachers in secondary schools within Machakos and Makueni Counties, Kenya. This study draws on three complementary theories which are situated learning, social learning and experiential learning to explain how shadowing enhances pre-service teacher development.

Using a comparative research design, the study investigated differences in preparation of professional documents between second-year students who participated in shadowing before their third-year teaching practice and those who proceeded directly to teaching practice without prior shadowing experience. Data was collected from 384 pre-service teachers across four teacher training institutions using questionnaires, observation checklists, teaching practice assessment scores, and semi-structured interviews with cooperating teachers and university supervisors. Quantitative data were analyzed using independent samples t-tests, ANOVA, and multiple regression analysis, while qualitative data underwent thematic analysis. Results indicated that pre-service teachers with shadowing experience demonstrated significantly higher performance in lesson planning ($t = 4.67, p < 0.001$), compared to their counterparts without shadowing experience. The shadowing group also exhibited superior ability to integrate theoretical knowledge with practical application, better understanding of school culture and administrative procedures, and enhanced reflective practice skills. These findings suggest that structured shadowing programs serve as critical transitional experiences that bridge the theory-practice gap in teacher education.

The study recommends mandatory integration of shadowing experiences into teacher preparation curricula, development of standardized shadowing frameworks with clear learning objectives, establishment of partnerships between teacher training institutions and secondary schools, and allocation of adequate resources to support shadowing programs. This research contributes to the growing body of literature on field-based experiences in teacher education and provides empirical evidence for policy formulation in Kenya's teacher preparation landscape.

Teacher Educators' Practices, Challenges, and Motivations for Advancing SDG4: Insights from Austria and South Africa

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sustainability education, teacher educators, SDG 4, professional development

Among the 17 Sustainable Development Goals (SDGs) proposed by the United Nations (UN, 2015), SDG.4 is aimed at equipping everyone with high quality of education. Accordingly, countries across the globe called for all educators to integrate knowledge, values, and competencies that enable learners to engage critically with social and environmental challenges by 2030. South Africa and Austria, like many other countries, have aligned themselves with the 2030 Agenda, and integrated the SDGs into their national education priorities and curriculum development. Their priorities and curricula reflect their local contexts and challenges (Lotz-Sisitka et al., 2022; Pham Xuan & Håkansson Lindqvist, 2025).

The purpose of this study is to explore how teacher educators in Austria and South Africa integrate the SDGs, particularly SDG 4, into their professional practices focusing on their challenges, strategies and motivation. One main rationale for this study was that teacher educators hold a significant role in shaping how future teachers engage with sustainability, yet the extent and nature of this integration remains uneven (Nketsia et al, 2020) and it is often individually driven (Zentrum für Lehrer innenbildung (ZfL), Universität zu Köln, 2023). The following questions were posed:

- (1) how teacher educators conceptualize their role in advancing sustainability education;
- (2) what motivations and institutional barriers shape their engagement with SDG-related principles; and
- (3) which strategies they employ to navigate these challenges in their teaching contexts.

To better understand teacher educators' contribution to SDG4 through their reflective practices and motivations for sustainability education, this study uses a mixed-methods approach. It combines the quantitative survey through TESS questionnaire (Dittrich et al., 2024) and qualitative analysis through semi-structured interviews. As this study is part of a wider study (Teach4Reach-2.0), a total of 320 teacher educators completed the questionnaire in South Africa and Austria and 20 teacher educators participated in the semi-structured expert interviews. Before the survey, they were informed of the purpose of the study and their participation was completely anonymous and voluntary.

The questionnaire includes 14 Likert five-point scale items and three open-ended questions to gather detailed insights. The Likert scale items focus on different aspects of teacher educators' role in sustainability education including their knowledge and understanding, incorporation into teaching, modeling sustainable practices, professional development, collaboration, project and material development and fostering a learning environment. Questionnaire responses are analyzed using SPSS for descriptive statistics, non-parametric tests, and thematic analysis to identify patterns.

For the qualitative phase, semi-structured interviews were conducted with a subset of 20 participants to gain deeper insights into their experiences, motivations, and challenges. They are analyzed thematically,

focusing on emergent themes related to reflective practices, motivations, and implementation strategies. The findings are fully integrated after both phases have been completed and were elaborated for discussion of the research study.

Based on the survey responses, many teacher educators in both Austria and South Africa report a familiarity with sustainability-related concepts but indicating that incorporation of SDG4 into their teaching remains context-dependent and often constraint by workload, curriculum structure, and resource availability. Further, the relatively higher mean scores on modelling sustainable practices and encouraging critical reflection show that although teacher educators incorporate these elements to some extent, the consistency and depth of this integration vary across individuals and teaching contexts. However, lower scores on collaboration with colleagues and the development of sustainability-focused teaching materials suggest that implementation frequently remains individual rather than collective. This may be indicative of limited opportunities for shared planning or coordinated curriculum design. However, open-ended responses reflect considerably on the variation confidence and depth of understanding, ranging from educators who can name multiple SDGs and link them to subject teaching, to others who report limited knowledge or uncertainty about how sustainability fits within their discipline.

Reflexive thematic analysis (Braun & Clarke, 2022) and Inductive coding (Thomas, 2006) revealed three key themes: the value framing and disciplinary anchoring, structural and institutional barriers, adaptive, Small-Scale Implementation Strategies. These themes mainly support the argument expressed by participants as structural barriers, including limited time, workload demands, and resource constraints, which restricted systematic integration. To tackle these limitations, many educators reported relying on step by step, small-scale strategies, embedding sustainability into existing courses, facilitating reflective dialogue, or using experiential learning tasks. Several educators also stressed that SDGs are sometimes treated as abstract or symbolic, requiring contextual adaptation for classroom relevance.

The findings identified that teacher educators in both Austria and South Africa are generally motivated to support SDG 4. However, the integration of sustainability into teacher education appears to rely largely on individual initiative, rather than coordinated program-wide structures. This is consistent with existing research indicating that sustainability in higher education often progresses through educator-driven efforts rather than systematic institutional planning. (Nketsia et al., 2020; Ershad et al., 2022)

The study points to the need to clear institutional guidelines, shared teaching resources, and opportunities for professional collaboration regarding integrating SDGs in Teacher education programs. The study concludes with recommendations for supporting teacher educators through structured spaces for dialogue and curriculum planning including the integration of sustainability considerations into program-level curriculum review processes, coordinated development of shared teaching materials, and institutionally supported professional learning communities.

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ICLUSION AND INTEGRATION IN EDUCATION

Intersecting Influences: Extramural English Use and Sociocultural Background in Shaping Language Exam Attainment Among Hungarian Secondary Students

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English language certification; sociocultural inequality; extramural learning; regression analysis; educational stratification

In second language acquisition research, increasing attention has been paid to extramural language practices—such as digital media use, informal learning, and online communication—which may contribute to the development of language competence (Darvin & Norton, 2016). These informal domains, however, are not independent of social structure: access to them varies significantly by social, economic, and geographic background.

In Hungary, these inequalities are reflected in parental education levels, financial status, school types, and settlement characteristics (Nikolov, 2003). Although a language exam certificate is no longer a legal requirement for obtaining a university degree, it continues to function as a valuable asset for entering prestigious higher education programmes and accessing competitive job opportunities.

The aim of this study is to examine how extramural English use and students' sociocultural background together influence the likelihood of obtaining a language exam certificate.

Our central research question is:

To what extent do individual, familial, school-level, and spatial characteristics explain the acquisition of language certificates among Hungarian secondary school students?

At the time of data collection, Hungary still maintained the legal regulation that required a language certificate for the awarding of a university degree.

This study is based on a secondary analysis of data from the 2020 wave of the Hungarian Youth Survey (N = 1587, nationally representative sample). The dependent variable was whether the respondent held a language certificate.

The independent variables included:

- sociodemographic characteristics (age, gender, and perceived financial situation),
- parental education (whether the mother or father held a university degree),
- informal English use (learning, reading, watching, and communicating in English — all coded as dichotomous yes/no variables),
- spatial factors (type of settlement and the economic status of the region).

No information was available on the level of the language certificate, so the analysis was limited to whether respondents possessed any certificate or not.

The results suggest that the likelihood of obtaining a language certificate is not determined by individual variables, but by complex configurations of factors. Significant predictors included:

- having a father with a university degree (OR = 2.49),
- learning English outside school (OR = 2.36),
- watching films in English (OR = 2.10),
- older age (OR = 1.36), and
- living in smaller settlements compared to Budapest (OR = 1.92–2.79); students living in smaller towns and villages had a higher probability of obtaining a certificate than their peers in the capital.

By contrast, students living in economically disadvantaged regions had lower odds of holding a certificate (OR = 0.57). These findings indicate that economic and spatial factors exert divergent effects. Informal English use only translates into an advantage in language certification when students' social position enables access to the necessary conditions.

Although, under Hungary's Act LIX of 2022 (§39), a language certificate is no longer a legal requirement for obtaining a university degree, it continues to function as a selective mechanism. The accumulation of language capital—especially in English—remains stratified along social, economic, and geographical lines.

Language education policy can only reduce linguistic inequalities if, beyond supporting informal language use, it also addresses the structural barriers that constrain students' formal advancement.

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The Aspirations (Impact) of Roma Parents Living in Disadvantaged Micro-Regions on Their Children's Further Education Opportunities: (Analysis Of Challenges And Opportunities)

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aspiration, roma parents, education

The aim of the study is to examine the educational aspirations of Roma parents living in disadvantaged micro-regions and to explore their impact on their children's further education opportunities. During the research, I used a qualitative method to analyze the parents' motivations, expectations and attitudes towards learning/further education through semi-structured interviews. I used a snowball method for the subjects, and the research was conducted with students of Roma Colleges in the Eastern Hungary region, i.e. parents of Roma students studying in higher education. The results highlighted that although the vast majority of Roma parents consider their children's studies important and would promote their further education, this process is hampered by numerous obstacles.

I am also a young Roma person in a disadvantaged situation, so the research is a personal mission for me. I am primarily curious about what aspirations the Roma parents surveyed have in order to support their children in further education, and what strategies are involved in this.

I used a snowball method for the subjects, and the research was conducted with students of Roma Colleges in the Eastern Hungary region, i.e. parents of Roma students studying in higher education. The results highlighted that although the vast majority of Roma parents consider their children's studies important and would promote their further education, this process is hampered by numerous obstacles.

Economic hardship, social exclusion and the segregated tendencies of the education system all reduce the chances of Roma youth to succeed in their studies. According to the interviews, parents who are not educated themselves actively strive to ensure a better future for their children and attribute great responsibility to education as one of the most important tools for social mobility. Based on the conclusions of the thesis, increasing equal opportunities for Roma students is essential to dismantle structural barriers, reduce educational segregation and provide targeted support to disadvantaged families.

Based on the conclusions of the thesis, increasing equal opportunities for Roma students requires the dismantling of structural barriers, the reduction of educational segregation, and the targeted support of disadvantaged families.

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Family, School and Community Factors of Early School Leaving in Hungary: Evidence from a 623 Early school leavers Survey

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early school leaving; educational inequality; student engagement; teacher-student relationships; inclusive pedagogy

Early School Leaving (ESL) has emerged as one of the most pressing challenges in European education systems since the 1980s, with long-term consequences for social cohesion and labour market participation. International studies highlight that ESL is strongly associated with unemployment, crime, and early parenthood (Mazrekaj & De Witte, 2020). Rumberger's (1995) classical model identifies three levels of influence: family, school, and community. More recent research has emphasised different dimensions: inclusive pedagogical strategies (Goulet et al., 2020), the interplay of family support and school environment (Myers & Myers, 2014), targeted prevention (Tárraga García et al., 2017), and the psychological factors of well-being and motivation (Dupéré, 2014). Hungarian scholars have contributed by exploring structural inequalities and educational segregation (Fehérvári, 2015, 2020; Radó, 2020; Imre, 2016, 2020).

The aim of this study was to investigate the complex factors that contribute to ESL in Hungary, with a special focus on disadvantaged students. The research addressed the following questions:

How did family background and parental education influence early school leaving?

What role did teacher-student relationships and school type play in student engagement?

How did peer communities shape students' educational trajectories?

The study sought to integrate pedagogical, sociological, and linguistic perspectives, building on the theoretical frameworks of Rumberger (1995), Bourdieu (1986), Coleman (1988), and Bernstein (1971, 1975), while highlighting the specific Hungarian context.

The empirical research was based on a questionnaire survey conducted with a sample of 623 early school leavers (Szverle, 2020). The instrument included 40 items focusing on school attachment, teacher support, parental involvement, and student motivation. Data analysis was carried out using SPSS. Statistical methods included independent-samples T-tests and analysis of variance (ANOVA). T-tests were applied to compare groups based on ethnicity, gender, and parental education. ANOVA was used to examine differences across settlement type and school type. Correlation analysis explored associations between parental support, academic achievement, and future aspirations.

The results revealed significant differences between Roma and non-Roma students in school attachment ($t = 2.41$; $p < 0.05$), and between genders in motivation, with girls showing higher engagement ($t = 1.98$; $p < 0.05$). Parental education proved a key factor, as students of less educated parents were more likely to leave school early ($t = 2.87$; $p < 0.01$).

ANOVA results indicated significant differences in school attachment by settlement type ($F(3,619) = 4.27$; $p < 0.01$), with rural students reporting weaker attachment. School type was associated with teacher attitudes ($F(2,471) = 3.65$; $p < 0.05$), while peer community effects were also substantial ($F(2,583) = 5.12$;

$p < 0.01$). Correlations confirmed the strong association between parental support and academic success ($r = 0.586^*$), as well as between future aspirations and parental involvement ($r = 0.407^*$).

The findings demonstrate that ESL is a multidimensional phenomenon shaped by the interaction of family, school, and community. Both international and Hungarian research highlight that inclusive pedagogical strategies and supportive teacher-student relationships are essential to reducing dropout rates. The study concludes that tackling ESL requires integrated approaches, combining pedagogical interventions with social and policy measures. These results contribute to the growing body of evidence that effective prevention must address not only structural inequalities but also students' linguistic, social, and psychological needs.

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Parental Perspectives on the Inclusion of Children with Autism Spectrum Disorder in Mainstream Education Settings

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inclusive education, autism spectrum disorder (ASD), parental attitudes, mainstream schools, teacher support and training

Inclusive education refers to the educational philosophy and practice of integrating students with disabilities, such as those with Autism Spectrum Disorder (ASD), into mainstream classrooms alongside their typically developing peers. This concept is defined by UNESCO (2005) as a process of identifying and reacting to the diverse needs of all students by enhancing engagement in learning, cultures, and communities. The aim is to ensure all children have access to a high-quality education, regardless of physical or intellectual ability. Notably, scholars like Ainscow (2020) have emphasized the importance of inclusive education as a means to foster social equity and academic achievement among all students. Previous research indicates that parents of children with ASD often have varied experiences and attitudes toward inclusion in mainstream schools. For instance, a study by Attard & Booth (2023) highlights that many parents express concerns about the adequacy of support and resources available in inclusive settings, fearing their children may not receive the individualized attention they require. Conversely, other research by Tryfon et al., (2019), demonstrates that parents can be advocates for inclusion, believing it promotes social interaction and acceptance among peers. Additionally, research by Whitaker & Hoover-Dempsey (2013) highlighted that parental attitudes are influenced by their experiences with school staff and their perceptions of the school environment. When parents perceive a collaborative and supportive atmosphere, their attitudes toward inclusion tend to be more positive. Understanding these diverse parental viewpoints is essential for educators and policymakers aiming to implement effective inclusive practices that meet the needs of students with ASD and foster a supportive educational environment (Urkmez et al., 2023; Mazon et al., 2022; Lindsay et al., 2016).

Despite the growing of research, several unanswered questions remain regarding parents' attitudes toward inclusive education in mainstream schools for children with ASD. One significant research gap is the need for a comprehensive understanding of the factors influencing parental attitudes, particularly in diverse cultural and socio-economic contexts. As highlighted by Odom et al. (2011), much of the existing literature focuses on the perspectives of educators or the outcomes of inclusive practices, leaving parental viewpoints underexplored. Additionally, the differences in attitudes based on geographical locations, family structures, and support systems warrant further investigation. This gap emphasizes the importance of incorporating parents' perspectives to inform policies and practices in inclusive education. The context of this study is noteworthy for several reasons. Firstly, it is situated in a region where the implementation of inclusive education policies is relatively new, providing a unique opportunity to explore the evolving attitudes of parents as they navigate this transition. Moreover, the demographic diversity of the area, including various socio-economic backgrounds and cultural perspectives, allows for a richer understanding of the complex factors that shape parental attitudes. Additionally, as ASD prevalence rates increase, understanding how parents perceive inclusive education becomes essential for shaping effective educational practices and interventions. Research by Fatimilehin & Nadirshaw (1994) indicates that cultural factors significantly influence parental attitudes towards disability and education, highlighting the need for context-specific studies.

The aim of this study is to gain deeper insight into parents' attitudes regarding inclusive classroom settings and to evaluate whether these settings are perceived as beneficial or challenging for children with ASD. Our specific research focus lies in understanding how parents assess the teaching strategies employed in inclusive classrooms, particularly in relation to their effectiveness in supporting the learning and development of children with ASD. By examining these views, we seek to uncover the facilitators and barriers that influence parental acceptance or rejection of inclusive educational models.

To achieve this objective, a mixed-methods research design was employed, combining both quantitative and qualitative methodologies. In the quantitative phase, a structured questionnaire was administered to a sample of 83 parents who have children with ASD enrolled in mainstream schools. This survey captured data on parents' general opinions about inclusion, their perceptions of their children's academic and social progress, and their views on teacher competence and resource availability. In the qualitative phase, semi-structured interviews were conducted with a subset of nine parents, randomly selected from the original group of 83. These interviews provided deeper insights into the lived experiences of parents, offering a nuanced understanding of the hopes, concerns, and expectations they associate with inclusive education. The qualitative data also shed light on specific teaching approaches and classroom accommodations that parents found either supportive or insufficient for their children's unique needs.

The findings of the study reveal a wide range of parental attitudes. Some parents expressed strong support for inclusive education, citing improvements in their child's social skills, increased exposure to diverse peer interactions, and a sense of belonging within the school community. These parents often associated inclusion with greater acceptance and reduced stigma for children with ASD. Conversely, other parents voiced skepticism or concern. Their reservations primarily centered around perceived shortcomings in teacher training, lack of individualized support, inadequate classroom resources, and the fear that their children's academic and emotional needs might be overlooked in a general education setting. Several parents emphasized the need for specialized training for educators and the implementation of targeted interventions, such as visual aids, individualized education plans (IEPs), and sensory-friendly classroom designs. Additionally, the study highlights the role of collaboration between schools and families in making inclusion effective. Parents who felt actively involved in their child's educational planning and who received consistent communication from teachers were more likely to report positive attitudes toward inclusive practices.

In conclusion, the study underscores the complex and multifaceted nature of parental attitudes toward inclusive education for children with ASD. While there is considerable optimism about the potential for inclusive settings to promote academic and social growth, ongoing concerns regarding implementation and support mechanisms remain. The findings suggest that in order to foster more positive parental engagement and ensure successful inclusion, educational policymakers and school administrators must prioritize teacher preparation, allocate appropriate resources, and foster strong school-family partnerships. Through addressing these features, mainstream schools can develop fair and supportive learning environments that meet the varying needs of all students, including those with autism spectrum disorder.

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White Accent, Brown Invisibility: An Autoethnographic Reflection on Native Speaker Privilege and Teacher Well-being in Indonesian Private English Institutions

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autoethnography, native-speaker privilege, postcolonial English language teaching,

Global English education often celebrates the ideal of inclusivity and high teaching standards. However, in postcolonial contexts such as Indonesia, structural inequities persist, privileging native speakers from Western countries regardless of their formal training or teaching experience. As an online English teacher in Indonesia, I have personally experienced the tension between professional competence and institutional bias, observing firsthand how locally trained teachers—despite certifications, pedagogical expertise, and extensive experience—are frequently overlooked in favor of foreign teachers with native accents. These dynamics are not limited to my own experience; through conversations with colleagues across private institutions in Jakarta, Bali, and Lombok, I have observed similar patterns where professional recognition, career advancement, and emotional well-being of local teachers are undermined by entrenched hierarchies and cultural perceptions that equate English proficiency with Western identity

This study aims to critically examine how native-speaker privilege manifests in Indonesian private English institutions, affecting teacher well-being and professional identity. By using an autoethnographic lens, I seek to connect my personal experience with broader patterns of postcolonial inequity in English language teaching (ELT). The goal is twofold: first, to reflect on how institutional and societal structures shape the lived realities of local teachers, and second, to challenge prevailing assumptions about competence, authority, and linguistic legitimacy in English education. This approach highlights how systemic biases can marginalize skilled educators, producing both personal and professional consequences that are often invisible in formal discourse on educational inclusion.

This research adopts an autoethnographic methodology, combining reflexive narrative with critical analysis. Primary data consist of personal reflections, documented experiences in online teaching, and field notes from interactions with colleagues and peers in multiple private institutions across Indonesia. These narratives are analyzed through postcolonial and sociolinguistic frameworks, particularly focusing on theories of native-speakerism, whiteness in ELT, and epistemic injustice. The analysis attends to both the affective and structural dimensions of teacher experience, capturing the interplay between personal agency, institutional constraints, and broader cultural ideologies that valorize foreign accents while undervaluing local expertise

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Based on the autoethnographic evidence and observations across multiple private English institutions in Indonesia, the study is likely to conclude that:

1. Native-speaker privilege systematically marginalizes local teachers, even when they have formal training, certifications, and extensive experience.
2. Teacher well-being and professional identity are negatively affected by institutional biases that favor Western accents and cultural backgrounds.
3. Postcolonial hierarchies continue to influence ELT recruitment and recognition, perpetuating inequities in professional opportunities and social valuation of local educators.
4. Personal narratives illuminate structural issues, showing that these experiences are not isolated but reflect broader patterns of exclusion and epistemic injustice in English language education.

These conclusions align with current literature on native-speakerism, postcolonial education, and teacher marginalization, but provide a unique, first-person perspective that highlights the emotional and professional impact on local educators. Unlike studies that rely solely on surveys or institutional data, this autoethnography connects systemic inequities with lived teacher experiences, offering actionable insights for policy and pedagogical reform.

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TECHNOLOGICAL ADVANCES IN EDUCATION II.

The Role of Mobile-Assisted Language Learning in Azerbaijan

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mobile learning, mobile-assisted language learning, educational technology, higher education

With the rapid advancement of technology, Mobile learning, specifically Mobile-Assisted Language Learning (MALL), has emerged as a powerful tool for enhancing language learning experiences. The widespread use of smartphones and mobile applications has provided learners with flexible and accessible platforms to improve their language skills beyond traditional classroom settings. MALL allows learners to practice listening, speaking, vocabulary, and pronunciation skills through interactive and gamified applications (Kukulska-Hulme & Shield, 2008). In a meta-analysis of 20 years of MALL research, Burston (2015) discovered that although many projects showed promising learning effects, these studies' methodological rigor was frequently lacking. The results' generalizability was restricted by factors like small sample sizes, a lack of control groups, and brief study durations. Despite these difficulties, Burston emphasized that, if instructional design is in line with pedagogical objectives, MALL may be a useful tool for improving listening comprehension and vocabulary. Burston and Giannakou (2022) built on this work by performing a more thorough meta-analysis that covered 25 years of MALL research (1994–2019). Their results confirmed that MALL can improve language acquisition, especially in listening comprehension and vocabulary.

This study explores mobile technology's role in language learning among Azerbaijani university students. By analyzing students' experiences and perceptions, the research identifies the key benefits and challenges associated with MALL. The study employs a quantitative research approach, utilizing a structured questionnaire with close-ended questions for statistical analysis, while two open-ended questions provide qualitative insights, combining quantitative data analysis with thematic coding to understand how mobile learning tools contribute to language development and engagement. Additionally, the research seeks to provide recommendations for integrating MALL more effectively into higher education language courses.

This study employs a quantitative research approach to investigate the impact of mobile-assisted language learning (MALL) on the language development and engagement of university students. Using a purposive sample technique, the questionnaire was disseminated through university departments to reach language-learning students. The target group was chosen in accordance with the goals of the study, even though participation was entirely voluntary. The data was collected through a structured questionnaire consisting of 22 questions, which aimed to gather numerical data on students' usage patterns, preferences, and experiences with mobile learning apps. The online survey was distributed to 103 university students, and responses were analyzed to identify trends and patterns in mobile learning behavior. The majority of the questions were close-ended, allowing for statistical analysis, while two open-ended questions provided qualitative insights into students' positive and negative experiences with MALL. The quantitative data were analyzed using descriptive statistics (e.g., frequency and percentage analysis). At the same time, thematic coding was applied to the open-ended responses to identify recurring themes related to user experiences and challenges.

This study investigated the impact of Mobile-Assisted Language Learning (MALL) on university students' language learning experiences, focusing on the effectiveness, benefits, and challenges of mobile learning

tools. The findings revealed that mobile learning is perceived as highly effective, particularly for enhancing listening, vocabulary, and pronunciation skills, which aligns with previous research (Rosell-Aguilar, 2018; Crompton, 2013). A significant number of participants highlighted the flexibility and accessibility of mobile apps, supporting Kukulska-Hulme and Shield's (2008) argument that mobile learning allows learners to engage with language content anytime and anywhere. However, limited free content, lack of conversational practice, and distractions from ads emerged as major challenges, consistent with the findings of Soyoo et al. (2023).

Moreover, almost 72 % of respondents supported integrating MALL into university courses, reflecting Kukulska-Hulme et al.'s (2017) view that mobile learning can enhance formal language education when combined with collaborative and interactive strategies. This study also confirms that mobile learning promotes learner autonomy, as highlighted by Kukulska-Hulme (2012), allowing students to self-regulate their learning and track progress through digital platforms.

This study examined how mobile-assisted language learning (MALL) functions in university language classes and examined how students see its incorporation into the classroom. According to the results, most respondents had a generally favorable opinion of MALL and acknowledged its potential to improve language instruction's flexibility, accessibility, and engagement. Students emphasized how mobile learning can help with vocabulary growth, listening comprehension, and general language competency.

Concerns about its implementation are also raised by the results, though. Many participants stressed the value of striking a balance between technology and conventional teaching techniques, even though they favored the use of mobile learning as an additional tool. Concerning time management and distractions, a few students voiced skepticism regarding the self-directed nature of mobile learning. Others were adamantly against its inclusion, pointing to the dangers of fewer student participation, heightened reliance on technology, and possible disruptions in the classroom.

Overall, the study indicates that, with careful implementation, MALL might be a useful tool for language learning.

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Digital Language Revolution: The Role of Artificial Intelligence in Secondary School Foreign Language Learning

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artificial intelligence; pedagogical innovation; foreign language learning; secondary school students; adaptive learning

Over the past decade, artificial intelligence (AI) has emerged as a transformative force in language education, offering tools such as speech-recognition systems and adaptive learning platforms to enhance pronunciation, communicative competence, and writing skills. International studies have demonstrated AI's potential: Amin (2023) highlights ChatGPT's role in augmenting EFL classroom support and assessment practices; Dennis (2024) reports improvements in pronunciation accuracy through AI-powered speech recognition; and Fountoulakis (2024) shows positive impacts on intercultural communication and overall language proficiency. Building on regional research into digital tool integration among Székelyföld secondary students (Tódor, 2024), this study addresses the gap concerning AI's specific contributions to language learning and stakeholders' perceptions.

This research aims to provide a comprehensive evaluation of AI tools' effectiveness in secondary-level foreign language instruction and to map the attitudes of both learners and educators toward these technologies. Specifically, it investigates: Research Question 1: To what extent do AI-based systems (e.g., speech-recognition software, adaptive platforms, intelligent feedback mechanisms) contribute to the development of students' pronunciation, oral communication, and writing skills? Research Question 2: How do students and teachers perceive the benefits and challenges of integrating AI tools in language learning, particularly regarding motivation and autonomous learning strategies?

Employing a mixed-methods design, the study combines quantitative and qualitative data to uncover causal relationships and nuanced perspectives. A stratified random sample of 600 students from Hungarian-medium secondary schools across Harghita County (covering urban, town, and rural contexts) completed an online questionnaire encompassing sociodemographic information, frequency of AI tool usage, self- and objectively measured language-skill assessments, and perceptions of tool effectiveness. Concurrently, 12 semi-structured interviews were conducted with secondary-level language teachers to explore experiential insights on AI integration, instructional impact, and long-term pedagogical shifts.

Preliminary analysis suggests that frequent use of AI tools correlates with higher self-rated and objectively assessed improvements in pronunciation, speaking fluency, and written accuracy. Students report increased motivation and a shift toward more autonomous learning behaviors. Teachers acknowledge gains in personalized feedback delivery but express concerns about technological reliability and the need for professional development to maximize AI's pedagogical affordances.

The findings underscore AI's potential to enrich traditional foreign language instruction by offering tailored practice and feedback, thus fostering both skill development and learner engagement. However, successful implementation demands targeted teacher training and infrastructure support. Aligning with global trends, this study recommends integrating AI tools as complementary assets within a balanced pedagogical framework to optimize learning outcomes and sustain innovation in secondary language education.

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Searching for Potential Benefits of the AI in History Teaching

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historical source; authenticity; reliability; historical relevance

International history didactical research and literature is lagging behind in reflecting upon Artificial Intelligence, namely on its didactically purposeful usage in history education. Being a school subject dealing with human processes in the past, history seems not to be ideal for AI (e.g. for big data analysis) that is becoming common in natural sciences. In relation with history teaching, international scholarly literature has concentrated so far either on general questions (e.g. Fischerné 2008; Nyíri 2014; Kjeldsen 2018) or mostly on AI generated images such as digitalised images and maps (e.g. Fodor 2019; Parellada et al 2022; Herber 2023).

The main purpose of the lecture is to discover some potential benefits of the AI in history education. In doing so, the lecture reflects upon the potential linkage between historical sources (on the one hand) and the usage of AI (on the other hand) in teaching history.

In the context of history didactics, when dealing with the linkage between historical sources and usage of AI in teaching history, equal stress has to be put on professional premises of both history as a science and history as a school subject. These two have some common/similar features but have some divergent features as well, such as authenticity, reliability, and usage of sources (as common features); need of historical relevance and importance of active learning (as divergent features). The main method of the study is to look: one, at the (above mentioned) professional premises one-by-one; two, at the AI potential of different types of school historical sources (written sources, pictorial sources, artifacts, and visualised number based sources such as tables, charts, graphs). The analysis and synthesis would be based partially on the comparative evaluation of scholarly literature, and partially on the own teaching experiences and research of the author.

On the one hand, the author does not see any potential in AI when dealing with written historical sources and informative iconic sources (such as portraits of historical personalities). On the other hand, the author sees some AI potential in dealing with number-based sources as well as in creating AI generated motion pictures that illustrate and elaborate historical processes (e.g. changing state borders, or illustrating work processes like building a cathedral or a castle). Yet, even this type of AI supported education should exceed the “illustrative nature” of learning, and should contain major elements of “active learning”.

The main conclusion of the analysis is that the potential of the AI generated education is quite limited in history teaching. Even if technical conditions are given, in school environment the focus of the AI-linked learning should be placed on historical sources as well as on actively involving pupils/students, in order to gain relevant historical knowledge and essential historical skills.

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Learning Achievements, Big And Small - The Link Between Gamification In Digital Badges

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gamification, open badge, micro-credential

In the field of distance education, nowadays digital learning: a strong pillar of instructional design still is the Stimulus-Response theory, where many small good learning steps towards course completion have to be followed by instant and positive feedback as a reinforcement. This phenomenon is also used in gamification to motivate users (players) to engage them, and to achieve higher and higher scores. Paralelly, as a traditional cultural and also legal service, educational institutions issue different certificates, diplomas to prove the learner achievement, the successful completion of studies. As the educational scene became less and less monolithic, long learning periods have to be split in smaller parts, (cycles, modules) recognition of achievements have to be claimed more often. The formerly listed components: the frequent reinforcement, constant motivation and also trusted proof documentation of achievements can be served nowadays with an appropriately designed smart digital tool. The most global tool for the purpose is the digital Open Badge. The Open Badge not only digitalise credentials, certificates and diplomas... all possible formal learner achievements, but offers a completely new direction to teachers and trainers to motivate, reinforce their learners, with issuing open badges to collect and acknowledge smaller achievements. This pedagogically well known technique in the digital era lead teachers to the field of gamification.

The rapid change of educational reality initiated convergence of the fields of reinforcement, motivation, gamification and achievements' acknowledgement. The methodology of evaluation (pre-, post-, diagnostic) methodology of learning outcome driven modular curricula, and the Institution management approach to digitally claim learning pathways and achievements are requiring multi-disciplinary skills to design Open Badge Hosts.

Desk research was made on good practices of using Open Badges for different pedagogical purposes, and two continuous projects (the Digitally Signed Credentials and Open Badges in VET and HE- DISCO VET, and the Digitally Signed Credentials - Smart Motivation with Stackability – DISCO SMS) were dedicated to building and developing a DCP Host, a platform for issuing and managing digital open badges with continuously enriched functionalities, to allow project participants to test and validate the credentialisation and gamification benefits of Open Badges.

The ongoing DISCO SMS project will offer methodological and technical help to teachers and learners to test and validate, how Open Badges may help their everyday educational processes by frequently issuing badges on smaller learner achievements, attitudes, soft skills gathering, and how they can be collected, managed. An interesting result will be the possible relation of the learning pathway through those gamified badges, to end up with digital (micro) credetials.

Research already suggest, that motivation, positive feedback and gamification are all important factors for successful completion of courses, and lower drop-out rate. Our digital approach to represent smaller achievements with Badges, as a part of a gamified good practice, will raise the well being of learners and teaches by the transparency of the process, will save time for teachers to have a diagnostic view on their

learner cohorts, and will also help to introduce a more self-reflective learning culture. The validation process will also search for positive effects that were not forecasted.

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EduFame: The Power and Practice of Teacher Influencers on Social Media

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education, social media, influencer, teacher influencer

The digital transformation of education has fundamentally changed the way teachers and students interact, with social media platforms emerging as new arenas for pedagogical innovation and professional networking. Recent research highlights that teachers are increasingly using platforms such as Instagram, YouTube, and TikTok not only to share educational resources but also to shape public discourse on teaching and learning. Studies indicate that teacher influencers can inspire methodological renewal, foster communities of practice, and enhance students' media literacy. However, the integration of social media into educational contexts also raises questions about digital competence and critical engagement with online content (Szabó, 2024; Szabó & Dani, 2024; Carpenter et al. 2022).

The primary aim of this study is to explore the role of Hungarian teacher influencers in the educational sphere of social media. Specifically, the research seeks to identify the types of digital content produced by the most prominent educational opinion leaders, examine the nature of their interactions with followers, and assess how such content can be effectively integrated into classroom teaching and learning (Barrot, 2021; Nelimarkka et al. 2021; Prestridge 2019). The main research question addresses how educational influencer content can support changes in pedagogical attitudes and approaches, and how it can be utilized in formal, informal, and non-formal learning environments both inside and outside of school (Zozaya Tellez 2024; Richer et al., 2022).

A mixed-methods approach was employed. First, a content analysis was conducted on the social media profiles of leading Hungarian teacher influencers, focusing on the frequency, format, and thematic focus of their posts (Light et al., 2018). In addition, semi-structured interviews were held with selected influencers (N=10) to gain insight into their motivations, strategies, and perceived impact. Data was analyzed using thematic coding.

Preliminary results suggest that teacher influencers play a significant role in shaping digital education culture, with their content widely used for lesson planning, professional development, and student engagement (Szabó, 2025). Followers report increased motivation, exposure to innovative teaching methods, and improved digital literacy. Anticipated outcomes include a typology of effective influencer-generated content, insights into best practices for integrating social media into teaching, and recommendations for leveraging influencer pedagogy to foster more participatory and media-aware learning communities.

The study concludes that teacher influencers are important agents of change in contemporary education, bridging the gap between formal schooling and the digital world (Tkacová et al. 2022). Their activities contribute to the renewal of pedagogical practices and the cultivation of critical, media-literate learners. It is recommended that educators and policymakers recognize the value of influencer pedagogy, support the development of teachers' digital competencies, and encourage the responsible and critical use of social media in educational settings (Hartung et al. 2023). These findings align with current literature, underscoring the transformative potential of social media for teaching and learning in the 21st century.

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Teachers' Readiness in Integrating Artificial Intelligence in Kiswahili Language Instruction in Junior Schools in Urban Informal Settlements in Kasarani Sub-County

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AI Integration in Kiswahili Instruction Readiness

Education globally is undergoing rapid transformation necessitating teacher readiness in handling 21st century learners. Specifically, the integration of Artificial Intelligence (AI) into education is needful for enhanced instructional delivery, learner engagement, and personalized learning experiences. This study aims at examining the teachers' readiness in integrating artificial intelligence in Kiswahili Language instruction in junior schools in urban informal settlements in Kasarani Sub-County. The specific objectives of the study are: to examine the level of teacher competence in integrating AI into Kiswahili instruction in Kasarani Sub-County; to assess the availability and adequacy of technological infrastructure supporting AI integration in junior schools in Kasarani Sub-County; and to evaluate the extent of institutional support in facilitating AI integration among Kiswahili teachers in Kasarani Sub-County. To achieve these objectives, the study will be based on the theory of Technological Pedagogical Content Knowledge (TPACK) framework. A descriptive research design will be adopted, and the target population for this study will consist of Kiswahili language teachers and head teachers drawn from both public and private junior schools situated within urban informal settlements of Kasarani Sub-County, Nairobi County, Kenya. Data will be collected using questionnaires, and analyzed using descriptive and inferential statistics. The findings may help shed more light on teachers' readiness in integrating artificial intelligence in Kiswahili Language instruction in junior schools in urban informal settlements.

The primary motivation behind this study stems from the recognition that education globally is undergoing rapid transformation. This transformation necessitates the readiness of teachers in handling 21st-century learners. Specifically, the study is motivated by the need to integrate Artificial Intelligence (AI) into education, as this integration is essential for providing enhanced instructional delivery, learner engagement, and personalized learning experiences.

The overall goal (or aim) of this study is to examine the teachers' readiness in integrating artificial intelligence in Kiswahili Language instruction in junior schools situated within urban informal settlements in Kasarani Sub-County, Nairobi County, Kenya. The research aims to shed more light on this area of teacher readiness.

To achieve this overarching goal, the study identifies three specific objectives (which serve as the research questions):

1. To examine the level of teacher competence in integrating AI into Kiswahili instruction in Kasarani Sub-County.
2. To assess the availability and adequacy of technological infrastructure supporting AI integration in junior schools in Kasarani Sub-County.
3. To evaluate the extent of institutional support in facilitating AI integration among Kiswahili teachers in Kasarani Sub-County.

The study utilizes the theory of Technological Pedagogical Content Knowledge (TPACK) framework as its foundational basis to explore these objectives.

The methodology adopted for this study involves a robust approach centered on collecting evidence concerning teacher readiness for integrating Artificial Intelligence (AI) into Kiswahili Language instruction.

Research Design and Framework

The study will adopt a descriptive research design. This design is utilized to achieve the stated objectives, which include examining teacher competence, assessing technological infrastructure, and evaluating institutional support for AI integration. The entire study will be founded upon the theory of Technological Pedagogical Content Knowledge (TPACK) framework.

Data Collection (Evidence)

The data or evidence collected to support the arguments regarding teacher readiness will be sourced from a specific target population. This population consists of Kiswahili language teachers and head teachers. These participants are drawn from both public and private junior schools situated within urban informal settlements of Kasarani Sub-County, Nairobi County, Kenya.

The primary instrument used for gathering this evidence is questionnaires.

Data Analysis and Justification for Change

The collected data will be analyzed using both descriptive and inferential statistics.

The analysis of this evidence aims to shed more light on teachers' readiness in integrating artificial intelligence in Kiswahili Language instruction in junior schools in urban informal settlements. By quantifying the levels of competence, infrastructure adequacy, and institutional support (as per the study objectives), the findings can be used to justify changes in teaching practice or policy. For example, if the inferential statistics reveal a significant lack of teacher competence, the evidence would strongly justify the need for targeted professional development programs in AI integration.

The primary anticipated outcome of this study is that the findings may help shed more light on teachers' readiness in integrating artificial intelligence in Kiswahili Language instruction in junior schools within urban informal settlements.

The study is expected to yield specific evidence-based findings related to its three objectives, providing critical information necessary for justifying future changes in policy or practice:

1. **Teacher Competence:** The findings will clarify the current level of teacher competence among Kiswahili instructors in Kasarani Sub-County regarding the integration of AI.
2. **Technological Infrastructure:** The results will assess the availability and adequacy of technological infrastructure available in junior schools to support AI integration.
3. **Institutional Support:** The outcomes will evaluate the extent of institutional support provided to facilitate AI integration among Kiswahili teachers.

Ultimately, the anticipated results will serve as a foundational assessment, confirming whether teachers are ready to handle the rapid transformation of education globally and adopt AI for enhanced instructional delivery, learner engagement, and personalized learning experiences.

Likely Conclusions

The final conclusions will be directly tied to the three specific objectives and will shed more light on teachers' readiness in integrating AI into Kiswahili Language instruction:

1. Conclusion on Teacher Competence: The study will conclude by providing a measured assessment of the level of teacher competence in integrating AI into Kiswahili instruction. This will establish whether the instructors possess the necessary skills to effectively use AI tools.

2. Conclusion on Technological Infrastructure: The findings will lead to a conclusion regarding the availability and adequacy of technological infrastructure supporting AI integration in the junior schools. This conclusion will determine if the physical and technical resources are sufficient to allow teachers to adopt AI.

3. Conclusion on Institutional Support: The study will conclude on the extent of institutional support provided to facilitate AI integration among Kiswahili teachers. This conclusion will indicate whether school administration and policy effectively encourage and enable the use of AI.

The overarching likely conclusion will synthesize these points to offer a definitive statement on the overall teachers' readiness in this specific context, thereby addressing the necessity for integrating AI to achieve enhanced instructional delivery, learner engagement, and personalized learning experiences.

Comparison to Currently Known Information

The only contextual statement provided is that education globally is undergoing rapid transformation, which necessitates teacher readiness.

Therefore, the likely conclusions drawn from this study will provide crucial new, localized evidence to the field. Since the study focuses on a highly specific population—Kiswahili teachers in junior schools within urban informal settlements—the findings will offer context-specific insights:

- If the study concludes that readiness is low, this will confirm the challenges associated with infrastructure and support in informal settlement schools, potentially aligning with general global knowledge regarding technology gaps in under-resourced areas.
- If the study reveals pockets of high readiness despite environmental challenges, the conclusion will offer contrasting evidence, suggesting successful localized adoption models not widely known or documented.

In summary, the likely conclusions will serve as a foundational data point to inform policy and practice, contributing specific evidence where the existing literature (as indicated by the provided abstract) is currently silent.

The study will be based on the theory of Technological Pedagogical Content Knowledge (TPACK) framework