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Thematic Article

Truth in the light of Parker J. Palmer's metaphorical understanding of education as a spiritual journey

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Abstract

The aim of this article is to highlight the importance of truth as one of the most essential attributes of spirituality, determining the qualitative function of educational subjects, and education, in general. Appropriate understanding and practice of the truth, in conjunction with other values/virtues such as obedience to truth, love, faith, prayer, courage, humility, etc., foster building a friendship between teachers and students, based on a dialogue about the truth. According to Parker J. Palmer's research, these values/virtues constitute the foundation for exploring the metaphor of education as a spiritual journey, enabling schools to overcome obstacles on the path to building a civilization of Love and Peace. The hermeneutic analysis of the contents leads to the conclusion that educational systems need to be reformed to address the authentic good of humanity. This will require a focus on building school autonomy based on the values/virtues that make for the spiritual approach to education and upbringing.

Keywords: education; virtues; spirituality; truth; obedience to truth

Introduction

Today many challenges have arisen that education must face at all levels. Social, cultural, political, and economic changes direct the operation of schools undermining the stability of even the proven systems. This interacts with a lack of security. Thus, the guarantee of effective, quality education often fails, which is reflected in the events we see taking place worldwide. Such a situation demands deep reflection grounded in seeking the truth and courageous openness to the results of query conducted, for example, within, at least, three cycles of educational action research. This can be seen by the fact that dynamic changes affect school's function, transforming it temporarily into a laboratory. This metaphor may result in mixed feelings, arousing concern and anxiety about shaping a qualitative perspective on education. After all, paradigms in education should not take the form of a "melting pot", for that would lead to educational and pedagogical crises, the likes of which we see around us. Thus, not surprisingly, the question arises: how can we manage these school crises on the moral, social, cultural, and spiritual levels looking at the future of the next generations? It's difficult to find a single, specific reply to this problem. The answers are assumed to lie in the axiological and ethical background, where values constitute the rock of educational systems on which a house is built. Such a house would not be destroyed by storms and strong winds. What is more, such a house can be a subject to a constructive innovation fostering the progress of integral human development as a whole. Therefore, for an educational system to work properly, values/virtues are needed, most importantly, spiritual ones. Their implementation in educational content support the teacher and student formation (Szymanska, 2017), justifying Palmer's (1993) metaphorical view of education as a spiritual journey. Before discussing the main aspects of this metaphor, it seems necessary to outline some information on Palmer's achievements. He was assigned to a group of 25 people whose work changed the world. He published a number of books, particularly: *Let Your Life Speak: Listening for the Voice of Vocation* (1999), *The Courage to Teach: Exploring an Inner Landscape of a Teacher's Life* (2007), *To Know as We Are Known: Education as a Spiritual Journey* (1993), *On the Brink of Everything:*

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Grace, Gravity, and Getting Old (2018), and *A Hidden Wholeness: The Journey Toward Undivided Life* (2009)². His focus centering mainly on educational subjects which are ground in objectivistic-behavior theories, leaving little to no place for spirituality. The author sees many dangers to education and the future of next generations coming from such approaches, since the personalistic, ontological dimension of humanity cannot be ignored. In this light, he exposes the hidden core of a person, that is, the spirituality enabling the teachers and their students to make education an instrument for seeking the truth in love, courage, faith, obedience, and other virtues. These and other merits that are found in the educational process through deep reflection he sought to unearth. Nowadays, in times of chaos caused by extreme relativistic concepts of cultural, social and political tendencies, his concept is crucial. For, while the current mainstream would seek to promote “the melting pot” of values, having naught to do with creating the autonomous space for teaching and learning truth, his attempts to foster that very thing which is logical and spiritual at the same time. His is the challenge set before educators.

Along these lines we have set out the following research questions:

- 1) How does Parker J. Palmer understand the metaphor mentioned?
- 2) What factors determine the practical implementation of this metaphor in the educational sphere?
- 3) What conclusions can be drawn from the presented theoretical analysis?

Answering these questions will be possible using the hermeneutic method and content analysis (Szymańska, 2025, pp.21-22; Vieira, de Queiroz, 2017) to explore and grasp the ever-updated, education-oriented issues raised in light of Palmer's concept. This is indeed the goal. Once achieved, practical implications can be unearthed and put in place.

Parker J. Palmer’s metaphorical vision on education perceived as a spiritual journey

Presenting Palmer's metaphorical vision on education as a spiritual journey requires, at least, an outline of the definitions of chosen spirituality appropriate for the discussed issue. It is worth mentioning the thought of Edward H. Taylor, who, in making the review of the literature on this subject refers to such authors as: Michael Miovic (2004), Dorte T. Viftrup, Niels C. Hvidt, and Niels Buus (2013), indicate that spirituality can be defined thus: “spirituality appears to be a transcendental internal experience and belief system that varies from person to person [...]. Many definitions are all-inclusive, while others, especially those from religious organizations, have more restrictive parameters. However, whether inclusive or exclusive, these definitions are equally abstract. The lack of specificity invites individuals to self-define spirituality” (Taylor, 2023, p. 1008). Also, it is worth eliciting the concept of spirituality by Doris Reisinger who aligns its social and personal dimensions and exposes the fact that they infuse each other. She claims also that spirituality belongs to the natural ability to be learnt from others, so it can be shared with the person’s social environment. The author explains: “Therefore, it can never be entirely private, but at the same time it is always unique and intimately personal. Spirituality understood in this way is closely connected to religion, culture, art, and even social dynamics” (Reisinger, 2025, p.127). Thus, on one hand, spirituality creates the inner space of feelings and mentality; on the other hand, it is formed by many factors, including the Transcendental one. The development of the spiritual sphere of personality has an impact on a person’s integral development encompassing the biological, psychological, social and cultural structures of personality (Kunowski, 2000) and social community in which the person lives and acts. According to the research, it has a significant influence on forming the identity in its construct named the autonomous creative identity (Szymańska, 2025), comprising the spiritual identity often tied up with the religious one (Nicoară, Nicoară & Popescu, 2024). This reflection on spirituality corresponds with Reisinger’s view: “spirituality is the art of shaping a system of meanings that fits a person’s individual fate and character and makes them thrive without alienating them from their historical, cultural, and social context. Spirituality is furthermore a system of meanings that add up to a coherent whole, and that can be adapted and developed so that it can deal with even the most unexpected changes in life. Finally, spirituality is a system of meaning that is resilient and allows a person to thrive and to give meaning to even the most shattering of life experiences (2025, p.128)”. Such understanding of spirituality also is related to Palmer’s metaphorical concept of education as a spiritual journey. Therein, the teachers and pupils are the main participants cooperating and collaborating within the community called school, where space is created for building bonds based on love, truth, obedience, humility, openness, and transcendence. In this way, they allow others to know their selves as they are known (Palmer, 1993). Chris Kiesling’s and others’ perception of spirituality are also ground for this idea; they speak of it as constructing spiritual identity perceived “as a persistent sense of self that addresses

² The information is taken from his biography accessible at <https://www.biola.edu/talbot/ce20/database/parker-palmer>.

ultimate questions about the nature, purpose, and meaning of life, resulting in behaviors that are consonant with the individual's core values" (Chris Kiesling's, 2006, p. 1269). It follows, education should stimulate its subjects to discover and disclose the meaning of spirituality. It can then be shared with others while still providing the space for personal exploration and discovery. Palmer puts it like this: "If we want to recover the spirituality of education to overcome the arrogance of the mind that would be God, we would do well to seek clues in the desert experience" (Palmer, 1993, p. 41). He recommends teaching from the heart, using stories and anecdotes that have within them hidden the valuable contents necessary for stimulating reflective growth. This growth can make a person open to silent speculation and attentive listening. In this way, truth and obedience will grow and mature. "Learning the truth requires that we enter into personal relationship with what the words reveal. To know the truth we must follow it with our lives. In this kind of education, the relationship between the teacher, the student, and the subject is one of obedience. The word 'obedience' does not mean slavish, uncritical adherence; it comes from the Latin *audire*, which means 'to listen'. Obedience requires the discerning ear. The ear that listens for the reality of the situation, a listening that allows the hearer to respond to that reality, whatever it may be" (Palmer, 1993, p. 43). He combines obedience with the faith, prayers, and truth grounded in a "rigorous and demanding love" (1993, p. 46) which are to perform a great role in the art of teaching and learning that fosters spiritual development, provided that both pupils are willing to look for the knowledge that transforms. In light of this, it can be assumed that spirituality is intertwined with educational processes, "a conscious process with a consciously set goal" (Reisinger, 2025, p. 128). Reisinger continues to explain: "therefore, spirituality is better understood not as a need, but as an art. Hence I would like to define spirituality as the art of creating meaning in life" (Reisinger, 2025, p. 128). This coincides with Palmer's "education as a spiritual journey" exceeding the three dimensions of teaching and learning: openness, boundaries and hospitality. Openness, Palmer writes, is "creating a learning space means resisting our own tendency to clutter up own consciousness and our classroom. If we can affirm the search for truth as a continually uncertain journey, we may find the courage to keep the space open rather than packing it with pretense. Second, we must remember that we not only seek truth but that truth seeks us as well" (1993, p.71, 72). He points out that "the openness of a space is created by the firmness of its boundaries. A learning space cannot go on forever; if it did, it would be not a structure for learning but invitation to confusion and chaos" (1993, p. 72). Therefore, the teacher is bound to define carefully and wisely the boundaries, which understood and used properly, can help students overcome their difficulties through hard work. They can face true problems and find solutions to them, though the pain be great and the cost high. So that their toils be meaningful and effective, we must address the third dimension of the metaphor - hospitality. The author claims "hospitality means receiving each other, our struggles, our newborn ideas with openness and care. It means creating an ethos in which the community of truth form, the pain of truth's transformations be born" (Palmer, 1993, p.74). The characteristics of the learning space described above reveal an inherent connection between its key dimensions. The dramatic space, defined by the interplay of silence and speech, is closely linked to the development of the cognitive space, while both are shaped by and reflected in the emotional (feeling) space — all united by a shared commitment to truth. Practicing these aspects of learning and teaching, space can be seen as a challenge that carries a reward, if the teacher builds a friendship with the students. It is necessary to add that "The true test of a friendship is its ability to sustain conflicts, its capacity to incorporate tension as a creative part of relationship; indeed it is in tension and conflict that the transformations of friendship often occur" (Palmer, 1993, p. 104). Such a kind of friendship takes place in a light, sweet atmosphere. Moreover, by overcoming obstacles and barriers, enduring pain, teachers can find strength, as long as they cling to their passion (Chen et al., 2021) for the vocation and their love for their students. Building a formative, spiritual approach to self and by valuing spiritual merits can help both pupil and teacher fulfill their educational mission. Among these virtues, Palmer mentions humility, faith, truth, curiosity, love, openness, and obedience. These inform the teacher's approach, requiring silence, meditation, especially silent meditation, solitude, and grace through prayers (1993; 2018). He also draws attention to the transformative knowledge the students gain while learning the school subjects. According to him: "The teacher, who knows the subject well, must introduce it to students in the way one would introduce a friend. The students must know why the teacher values the subject, how the subject has transformed the teacher's life" (1993, p. 104).

To sum it up, Palmer's metaphor of an educational journey highlights the meaning of building the inward educational space in teachers and students through the mature friendship determined by virtues/values (Hitlin, 2003). These are formed in their hearts and minds while they are in the process of knowing themselves as they ought to be known by others. Active participation in this journey requires an obedient approach to truth and courage (Palmer, 2007). Friendship seen from this perspective is rooted in the well-developed spirituality "that

carries a person through all kinds of challenges of life and helps them to deal with these situations, in a way that they do no harm to either themselves or others, is a true art that few have mastered, but from which all would benefit” (Reisinger, 2025, p. 128).

Truth - the prior value determining the metaphor of education as a spiritual journey

The metaphor of education as a spiritual journey points inward, toward the inner dimensions of teaching and learning, and calls for an understanding of the truth and courage that underlie the authentic, wise attitude of the teacher. This attitude should be built on the truth. In this context, recalling Stanisław Kowalczyk’s view on virtue/values is crucial. Referring to cognitive-intellectual values, he notes that truth is not a theoretical-speculative value, but an existential-personal one. He underlines that the logos of truth, recognized in the world, thanks to human mental faculties, requires an ethos, which defines and drives human action. He also stresses that one of the primary criteria of human value is their fidelity to and humility regarding the truth, combined with an awareness of their own limitations. Betrayal of the truth is always the psychological destruction of the human personality (Kowalczyk, 2006, p. 176). That is why, it is necessary for teachers to create a space for truth in which students can experience practicing it personally and in community. One of the means of conveying the truth is the dialogue taking place in a relationship between “knowers of self and those who are known by self, who are understood as independent but accountable selves. The dialogue saves personal truth from subjectivism, for genuine dialogue is possible only as I acknowledge an integrity in the other that cannot be reduced to my perceptions and needs” (Palmer, 1993, p. 55–56). The truth in the friendly relationship between teachers and pupils/students is shaped mainly by those who know, who make an attempt to possess the truthful knowledge which does not infuse the world subjectively “as premodern knowing did” (Palmer, 1993, p. 32). This knowledge is not used for manipulating others or to meet personal or communal needs, as it takes place in the modern or postmodern, and educational realms. Truthful knowledge is primarily built by bonds of love, not logic. Although, it is afflicted by logics as well. Teachers and students treat the classroom as an integral community, a place where these ties hold them responsible for behaving according to knowledge shaped by morals. This adherence to axiological epistemology provides for a wider creative space, where teachers can share their power accountably with students. Nevertheless, it is sad to say that many students, on one hand, expect teachers to act creatively and make the space for them while, on the other hand, do not want to take true responsibility for own learning. Considering this, Palmer’s perspective on such a situation seems to be very actual nowadays. He writes: “when a teacher tries to share the power, to give students more responsibility for their own education, students get skittish or cynical. They complain that the teacher is not earning his or her pay, and they subvert the experiment by noncooperation. Many students prefer to have their learning boxed and tied, and when they are invited into a more creative role they flee in fear” (Palmer, 1993, p. 39). To overcome difficulties connected to student engagement in the process of learning, the educational institution could provide possibilities for pupils to develop their inner character where love and obedience to truth hold their rightful place. This could lead to community building where friendship between members is shaped wisely according to the ethical rules grounded in personalism. Palmer sees the Christian approach of prayer as very effective as it “brings us to the edge of a great mystery, where we become inarticulate, where our knowledge fails” (1993, p. 125), we learn humility and to be open to multiple interpretations of knowledge, but it can also be seen as relativism, promoting chaotic subjectivity and thus impeding the process of seeking truth. To avoid dangers connected with choosing the right path to grab hold of truth, teachers could develop students’ natural mental and moral curiosity with the use of Sokrates’ methods of inquiry and others (Dorgu, 2015), for example, enabling them to discern what is good or bad, shallow or deep, authentic or illusionary, false beauty, love, and truth etc. One must adjust appropriately his or her chosen knowledge strategies in order to better apply what is known to be true, to reinforce it. It is thanks to truth that we better understand Man’s existence and purpose (Duma, 2016, p. 868), by adding a new qualitative layer to and support for building a new, quality identity. It can thus be perceived as one of the most important factors determining the shape of a teacher’s vocation and the mission they are bound to fulfill. Palmer calls them a “true professor”, saying, “the true professor is not one who controls facts and theories and techniques. The true professor is one who affirms a transcendent center of truth, a center that lies beyond our contriving, that enters history through the lives of those who profess it and brings us into community with each other and the world” (1993, p. 113). The true professors/teachers create a learning space for truth and obedience to truth. They create the space for building a community of the Spirit, enabling bonds of friendship formed in and through prayer done in solitude and silence, and meditation rooted in love for God, for others, for the world, and for self.

Conclusion and implications

The hermeneutical content analysis presented above points out significant values/virtues, namely truth, obedience to truth, love, and humility in education, as viewed through Parker J. Palmer's education as a spiritual journey. In his thought, spirituality is key to qualitative education and the formation of educational subjects. As far as the meaning of spirituality in education is concerned, he focuses on educational approach reform from a personal view of the truth according to the Christian faith. Palmer's observations can be transferred to a universal framework of school curriculum and may inspire educators to undertake not only practical action, but also seek out spiritual factors that better the quality of education and upbringing. Such an approach requires courage and the faith in the power of Transcendence in overcoming boundaries, including political ones. Regarding the true good of humanity, such activities seem worthwhile, we are surrounded in our day and age with hostility, insecurity, and extreme relativism. This has little in common with the truth and obedience to the truth, generally and not dogmatically. Therefore, the "spirit-seeking heart" and the "knowledge-seeking mind" (Palmer, 1993, p. 24) should induce teachers' and other educators' constant reflection on the quality of their vocational identity as affecting their students' holistic, integral development. Remembering that education goes beyond the tangible and material, they need to ask questions about the mission they are to fulfil.

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Thematic Article

Thoughts on open science, or new trends in publishing the results of pedagogical research

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Abstract

The radical transformation of education over the past quarter-century, especially accelerated by COVID-19, has raised significant challenges and opportunities for both pedagogical theory and practice. This article examines how the landscape of publishing scientific research—particularly in education—has evolved in response to these changes. Reflecting on more than fifty years in educational research, I explore how digital transformation and Open Science now shape scientific communication and publishing. The introduction reviews the early impulses that shape the theoretical background. It explores new communication forms arising from infocommunication (Katz et al., 2021). Examples show a paradigm shift, demonstrating how scientific communication has adopted online practices. The article highlights conceptual frameworks, spatial and methodological changes in communication, and new ways of sharing research (Nyíri, 2007). It emphasizes the expansion of publication spaces. These changes show that pedagogy researchers must address new issues.

Keywords: open science; educational research; online communication; publication

Introduction

Methodologically, this essay adopts an educational science lens to analyze how interdisciplinary approaches can address the profound and current challenges in scientific communication. With a specific focus on how generations born in the latter half of the 20th century now engage with redefining and disseminating knowledge, I position the article to argue that evolving models of communication require new frameworks for pedagogical scholarship.

My scientific career has centered on the theory of education within the shifting context of technological and social progress. The dawn of the 21st century marked a turning point—personally and professionally—when digital transformation began to reshape not only how education is delivered but also how research is communicated. I argue that the principle of Open Science, advocating for transparency, reproducibility, and broad knowledge sharing, has only recently taken root in educational science. This shift, driven by the digital age, introduces both opportunities and challenges for building a more open, collaborative scientific community.

On the theoretical background - early impulses

When we analyze changes in pedagogical thinking, it is clear that both theory and practice in human development have undergone significant shifts, especially since the mid-20th century and, more recently, in the early 21st century. One major influence was Eco's essay "Opera Aperta" (1962). The author, who also wrote famous historical novels, influenced scientific thinking during the second half of the 20th century. The model of the open work is like a vast, open information system. This helped science and art move toward open access to results. Open Access, once just an idea, became reality and libraries led the way in this process.

The quick adoption of Information and Communication technologies has radically advanced openness, information access, and knowledge sharing. This transformation—visible in the rise of mobile phones and the uptake of networked communication—has helped make Open Science a reality, profoundly affecting how

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scientific research in education and other fields is published and disseminated. The article argues that this paradigm shift demands an active reassessment of research communication practices.

In the late 20th century, Umberto Eco's book "How to Write a Thesis?" (1977, originally in Italian) became an important guide for higher education students. Eco's book was practical but also reflected the spirit of its time. It came before the European 'Bologna Process,' which introduced a two-stage higher education system. Eco examined writing at a crucial time, but the book is now outdated in its technological advice. Later developments—such as mobile phones, supercomputers, and cloud services—transformed everything.

Paradigm shift in the scientific communication space – new publication practice

The process of scientific communication underwent an epochal change immediately after the millennium. Landmark initiatives such as the Budapest Open Access Initiative (2002), the Berlin Declaration (2003), and the Bethesda Statement (2003) were foundational in defining and advancing Open Science. These initiatives argue for unrestricted access to scientific knowledge and stress that libraries and publishers play a crucial role in this transition. My central argument is that such community-driven commitments have set the framework for current debates and practices in publishing educational research.

The documents illustrating the shift in communication strategy have provided important orientation for the modern understanding of Open Access, interpreting the processes of change initiated by the Internet world and drawing attention to the new contexts associated with the publication of scientific research results: A complete version of the work and all supplemental materials, including a copy of the permission, in an appropriate standard electronic format is deposited (and thus published) in at least one online repository using suitable technical standards. It is supported and maintained by an academic institution, scholarly society, government agency, or other well-established organization that seeks to enable open access, unrestricted distribution, interoperability, and long-term archiving (Berlin Declaration, 2003).

The documents referred to reflect the significant changes taking place in our present, which have radically transformed the practice of publishing the results of scientific research in an environment that carries Open Science and new electronic network possibilities. Responding directly to new trends in a progressive manner, in 2007 the Frontiers publishing house was established at the Swiss Federal Institute of Technology (EPFL) in Lausanne, Switzerland, on the initiative of neuroscientists Henry Markram and Kamila Markram, as a non-profit foundation to illustrate how the Open Science principle can be applied in practice. Consistently applying the requirements of Open Access, Frontiers, which has the most modern IT background, currently has 228 periodicals, and its archive contains 635 thousand scientific publications, which are used by about 3 million researchers.

Educational science research always offers a good opportunity for multidisciplinary analyses, but national online applications are less suitable for illustrating the effects of Open Science. Therefore, it is worth considering an analysis of international publication trends. During my investigation, I considered the English-speaking area relevant and selected three widely used online publication databases that allow comparison to illustrate the trends. The newest of these is the aforementioned Frontier. The online database of Springer, which organizes 2,900 periodicals and about 300,000 scientific books, and the online database of the Taylor & Francis publishing group, which organizes 4,709,000 peer-reviewed scientific works, have a significant history, and based on their data, we undertook a thematic analysis of the connections between educational research publications and the Open Science topic. These significant service providers in international scientific communication were among the first to switch to open-access services, so obtaining comparative data was feasible within the online information framework. The question was formulated as: in what order of magnitude and dynamics do the above topics appear in the examined period (2007-2025), especially in the last decade?

The literature on the topic was analyzed using the Systematic Quantitative Literature Review (SQLR) method (Pickering & Byrne, 2014). Although many new, electronically available professional studies and analyses have appeared on this topic in the past two decades, and the SQLR methodology has only been developed in recent years, this procedure allows the analysis of literature sources to be carried out in steps that allow the delimitation of the topic, the dynamics and reference value of the appearance, and the selection of relevant sources. In advance, the topic was designated, the research topic was defined, relevant keywords were generated, and reference publications were selected in accordance with the basic steps of the SQLR methodology. The study's analysis confirmed the assumption that the number of new publications in internationally prominent, indexed journals, analyzed using key terms (Open Science, Education, Education Research) in recent years, has increased significantly.

- The first step was selecting keywords, during which it was advisable not to designate too narrow conceptual areas. Since more than 95 percent of the literature sources are in English in the three selected international databases, the analysis was carried out according to thematic key terms – Open Science (OS), Educational Research (ER), and the publications that make up the common set of ER&OS.
- The analysis was carried out using data from 2007-2025. The beginning of the interval was justified by the magnitude of the publications, which is several hundred, and the establishment of Frontiers. The last year of the interval is 2025 due to the complete annual data provision.

Table 1. Number of scientific articles published between 2007 and 2025 according to the key terms searched in the examined online publishing databases

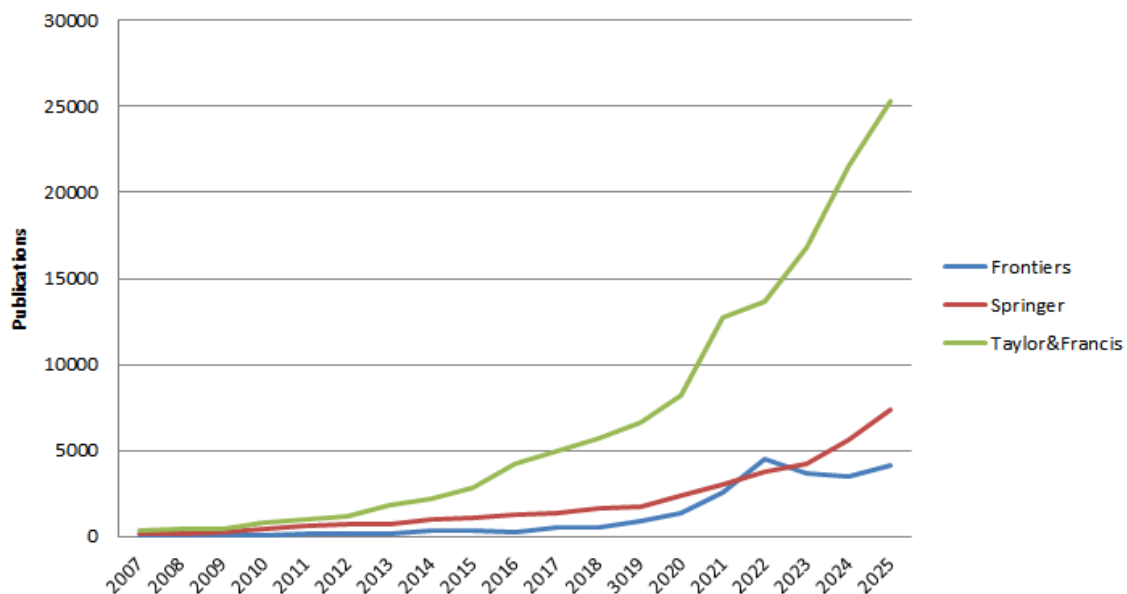
Keywords/Publishers	Frontiers	Springer	Taylor&Francis
Education Research (ER)	57540	258867	219490
Open Science (OS)	29725	121305	238651
ER&OS	24580	37371	138211

According to the data presented in Table 1, the primary search returned several thousand publications using key terms; therefore, it is justified to narrow the analysis to the set of key terms. The 86 and 118-item reference lists thus obtained in the two databases may already meet the more differentiated aspects of the further analysis.

Some correlations that indicate the dynamics of change: by 2010, the number of publications published within the given publishing framework in the ER&OS topic exceeded 100. This number increased almost 10-fold by 2020 to 11892, then doubled the following year, increasing by 20 percent annually in recent years. Figure 1 graphically illustrates changes in the data from the three publishing databases, showing the dynamics of increases in the number of publications on a given topic.

After this, a more differentiated processing of the literature sources and the creation of thematic databases may be possible. In connection with this paper, in order to illustrate the dynamics of the change, the number of publications with the given key terms and ER&OS keywords per publisher (2007-2025) has changed as follows, Figure 1. These data are graphically presented in Figure 1, which shows the significant dynamics of the process, with growth in the common thematic set of educational research publications and Open Science.

Figure 1. Scientific publications in the topics of educational research and Open Science in journals published by Frontiers, Springer, and Taylor & Francis between 2007 and 2025



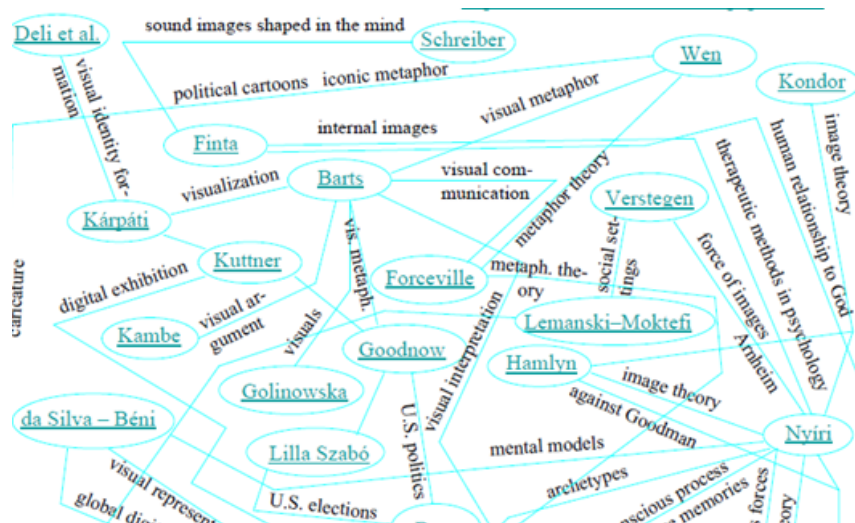
The qualitative consequences of the indicated dynamic change can be the subject of a separate analysis, but it can be stated that we are witnessing a transformation in the publication practices of scientific publications in our decade, clearly indicating that a paradigm shift is taking place in the international communication space for scientific results. Although we have presumably not yet undertaken a detailed description of the new paradigm, due to the complexity of the process, it is nevertheless noticeable that we are witnessing global changes today.

Examples of new forms of communication and methodological development

The acceleration of technological development in the 21st century, the online space, and the emergence of virtual challenges, especially artificial intelligence (AI), are changing our thinking about pedagogy on an everyday level. Our learning habits are undergoing a radical transformation, and the scientific interpretation of this process requires new approaches. The first example cited in this article is the process of publishing the results of the Visual Learning Lab (VLL), which can be considered a significant science communication experiment in its international context over the past decade and a half. The VLL was established at BME in October 2009, and at its monthly events, lectures by significant international figures in science (Özséb Horányi, Theo Hug, James Katz, Alen Knox, Kristóf Nyíri, Kurt Rütgers, Barry Smith) demonstrated the multidisciplinary nature of visual learning.

A new phase of the process began in December 2010, when the first international Visual Learning Conference was held in Budapest, and a selection of the materials from which was published in 2011 by Peter Lang Publishing (Benedek & Nyíri, 2011). Subsequently, 6 more volumes were published through 2017, documenting the scientific communication that occurred between traditional face-to-face laboratory meetings and international conferences. This example also illustrates the typical connection between the development of conference topics and the organization of communication. The scientific communication process between 2010 and 2024 was thoroughly documented through conference sequels and the three-volume summary study, which illustrate the analysis of philosophical, psychological, and pedagogical scientific questions related to imagery. In connection with all this, illustrating the impact of the online world and the social communication space that were still typical of the early 21st century, a summary conference, which is now of symbolic significance, took place in 2019 in Budapest at the headquarters of the Hungarian Academy of Sciences (MTA). Subsequently, the most significant was the three-volume synthesis of the past decade, published jointly by the MTA and BME, with the title *Perspectives on Visual Learning*, reflecting the realization of a scientific mission. The first volume of the trilogy is titled *Vision Fulfilled. The Victory of the Pictorial Turn*. The second volume, entitled *Learning and Technology in Historical Perspective*, was about the significance of the online world and the impact of virtual opportunities on education. The third volume, entitled *Image and Metaphor in the New Century* (Benedek & Nyíri, 2019), analyzed the 21st-century perspectives of the role of imagery.

In our world, which was initially beautifully documented only through traditional publications but is increasingly confronted with the spread of the online world, the change has been clearly noticeable since 2020. In November 2020, the 9th Budapest Visual Learning Conference was forced to go virtual. The publication of topics and authors (about 40 presentations) in a visual network, and the visibility of abstracts and thematic networks thanks to hypertext, represented in Figure 2. an innovation that has since become widely used in international scientific communication, with its many advantages and disadvantages (Aczél, Benedek & Nyíri, 2020).

Figure 2. Illustration from “How Images Behave”, abstract volume 9 of the Visual Learning Conference

Source: Aczél, Benedek & Nyíri, 2020

The “visual turn” in education over the past quarter century was based on the realization that adding multimedia elements to the curriculum – images, animations, sound – makes it easier to review large amounts of complex data. In today’s world, it is now clear that visual representation facilitates learning across disciplines. This theoretical recognition has had a significant impact on practice since the new mobile communication tool systems (mobile phones, broadband internet services, instant access cloud services, huge server capacities, and high-performance (quantum) supercomputers) made technological support more significant than ever before available to individuals in a “space” that combines reality with virtual elements.

The second example, which my article refers to, is the project related to the professional dissemination of the Visual Learning Workshop (BME VLL), established within the framework of BME², which was implemented within the MTA Subject-Pedagogical Research Program between 2017 and 2022. This project focused on the creation of visual content within the framework of online collaborative curriculum development. During open online content development, the introduction of curriculum units as networkable micro-contents, as a curriculum development procedure (Sun et al., 2020), was given a prominent role.

Referring to the events of the past quarter century, the emergence of online technologies and the transformation of teaching and learning into virtual space have fundamentally transformed the reality of education. If we undertake internal segmentation, then between 2005 and 2010, a “conceptual awakening” to connectivism, a learning theory approach, occurred (Siemens, 2005). LMS (Learning Management System) systems and cloud-based services have become widespread in higher education, and interactive-collaborative learning (ICL) has gained increasing ground in the world of classrooms, and in vocational training, project-based education, and training combining theory and practice.

Within the framework of this global process, the project results of the MTA-BME Open Content Development in the Vocational Training Research Group, implemented between 2016 and 2021, explicitly demonstrate the possibility of publishing and practically applying scientific results on online platforms. The online platforms created within the project³ provide a classic open, collaborative online interface for publishing development results and new local, individual professional development results.

In accordance with the specificities of Hungarian vocational training, the project undertook to develop methodological training in complex school subjects. The primary goal of the research is to support the content development applied in vocational training, which is significantly outdated, while at the same time striving towards a new digital environment through traditional teaching materials with modern methodology. These goals were related to the current modernization of professional teacher training, in the process of which the demand for digital education based on the application of info-communication technologies appeared. The theoretical background of the research was digital pedagogy, based on the connectivist learning theory approach in Hungarian professional teacher training and introduced in the 2010s (Benedek & Horváth Cz., 2016; Hod et al., 2019; Szűts, 2020), on which specific experiments in online collaborative learning were already taking

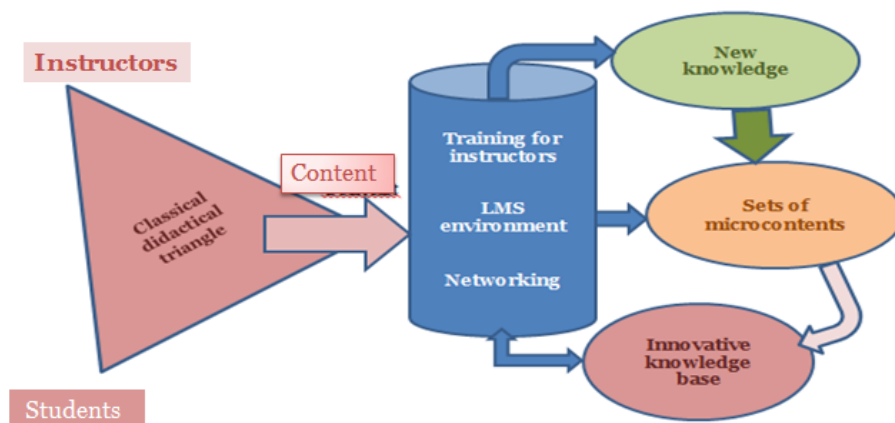
² Project website: <https://www.oed.bme.hu/>

³ Mikropedia: www.mikropedia.hu, Sysbook: sysbook.sztaki.hu

shape in the years before COVID-19. New methodological solutions – such as online content development and the creation of thematic sets of micro-contents related to learning units – have been integrated into teacher training practice in recent years.

The exemplary value of this research lies in the rapid introduction of the Open Content Development approach in vocational training and higher education. Our project considered the curriculum units of our micro-content repository, developed in online collaborative frameworks between 2018 and 2024, as a representative set. We sought to answer the question of what patterns and methodological characteristics the new set of learning units that emerged from online collaborative activity shows. Related to this was the question of what development opportunities can be explored from the interconnectivity of micro-contents, and how the addition and functional expansion of a given micro-content can be interpreted as a development task. The other goal is to open up the possibility of shared data storage by creating repositories that provide open access to micro-content developed and uploaded by different developers, which allows for a variable solution of the connections between learning units, and thus, in a system that is differentiated locally, also by developers, by connecting content elements to each other, new networks can be created, and thus new quality can be created. Figure 3 shows the interrelation between the main contributors by the classical didactical triangle and functional elements of the Open Content Development Model introduced into the vocational education practice.

Figure 3. Factors and effects in the Open Content Development Model



Due to the nature of the effects between educational factors and actors, the research and development required the application of a complex methodology, from which this analysis highlights the consistent application of the Open Science approach, which is particularly important in the implementation phase, as reflected in the communication sources, channels, and new professional portals related to the project. The strong implementation of the Open Access principle in scientific communication also has a noticeable longer-term impact on the content of professional training, as illustrated by the results of the open curriculum development model (OCD - Open Content Development). Although the formal research concluded in 2022, dissemination is ongoing and successful, and the project's impact on the renewal of professional teacher training content is increasingly evident. The latest experiences of the project implementation show that the applied digital sources and repositories, which, thanks to Open Access solutions, effectively support micro-content-based developments from both thematic and methodological perspectives.

Instead of conclusions

Suggested form: Looking back on the past quarter century, the trajectory from early connectivist theory to today's AI-driven pedagogical challenges is clear. The LMS environments and interactive-collaborative learning methods that gradually took hold in higher education were further accelerated by COVID-19, ultimately creating the hybrid and hyflex learning contexts we now navigate.

This article uses a few examples to illustrate the emergence of Open Science in educational research within the broader Open Science framework, and, at the same time, examines international trends, noting that the change that has begun will affect our pedagogical thinking in even more complex ways in the future. The spread

of the online world and the series of unique impulses of virtual technical solutions have become a system of effects in which the transformation of our pedagogical thinking is necessary. Nowadays, the most intense discourse is taking place in the most complex way about the impact of artificial intelligence (AI), and this topic is also at the center of publication interest. Although one should be cautious in making predictions and interpreting their results, it is a fact that the change has a significant impact on the world of education, and the need for the publication and application of scientific research results, and the acceleration of the speed of information flow related to this, is undeniable.

Acknowledgement: I would like to briefly address why this article was written. The timing is definitely related to the significant anniversary of Professor Gabriella Pusztai, whose domestic and international work in educational science is not only outstanding, but her results, thematically, in their contexts and dynamics, excellently illustrate the process that has taken place in our domestic pedagogical thinking and scientific publication practice in the last two decades. The change in the theory of technology transfer and pedagogy, and in the practice of university education, is perfectly illustrated by the process associated with the emergence of open science and its becoming a general practice. However, this story is not nearly as processed as a whole and can even be considered a challenge that concerns many and requires individual and institutional responses. I wanted to modestly comment on this story, acknowledge and thank Professor Gabriella Pusztai for her significant initiatives in the renewal of scientific journals in the field, and join in the birthday congratulations.

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Thematic Article

Pedagogical modernization or political assimilation? The 1879 elementary education act in the mirror of parliamentary debates and *Néptanítók Lapja*

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Abstract

Act XVIII of 1879, which mandated the teaching of the Hungarian language in all elementary schools across Hungary, represented a decisive turning point in the educational structure of the Austro-Hungarian Monarchy. Drawing upon the theoretical frameworks of Ernest Gellner (1983) and Eugen Weber (1976), this research focuses on how state-driven linguistic homogenization emerged simultaneously as a professional necessity and a tool of nation-building. Our study presents the content of the act and the pro et contra arguments within the parliamentary debates surrounding its adoption. Furthermore, it highlights the core concepts and elements of the official pedagogical discourse following the legislation through a qualitative thematic analysis of the 1879 issues of *Néptanítók Lapja* (People’s Teachers’ Gazette), a government-sponsored weekly professional journal. Our findings reveal an inherent contradiction in the official rhetoric: while the journal promoted innovative, communication-centered “natural methods” in language instruction, these pedagogical advancements primarily served to consolidate political loyalty and erode minority national identities. The analysis identifies three main discourse types: the professionalization of the “Magyarization” process, the ideological construction of the Hungarian language as a “civilizational” prerequisite for social mobility, and the practical challenges faced by rural educators working in multilingual environments. By placing the Hungarian case within a broader European comparative perspective, the study contributes to the understanding of how 19th-century school systems functioned as arenas for national identity construction in multiethnic regions.

Keywords: Act XVIII of 1879; Magyarization; language policy; nation-building; Central European history of education

Introduction

The enactment of Act XVIII of 1879, making the teaching of the Hungarian language compulsory in every elementary school in the Kingdom of Hungary, was not an isolated legislative event but a manifestation of a broader European trend toward linguistic homogenization within the framework of the nation-state. As Ernest Gellner (1983) posited, the transition to a modern industrial society required a unified “high culture” and a common language, achievable only through a centralized educational apparatus. The process of “turning peasants into Frenchmen”, analyzed most profoundly by Eugen Weber (1976) in the context of the French Third Republic, parallels the Hungarian government’s efforts to consolidate the nation-state through the classroom. The “Magyarization” policy of the Trefort era can thus be interpreted as a pedagogical mission to integrate a diverse, multiethnic population into a unified political community. By examining the official pedagogical press, particularly the 1879 issues of *Néptanítók Lapja*, we can observe how the state utilized educational discourse to resolve tensions between national identity and the practical challenges of rural, multilingual environments (cf. Hobsbawm, 1990).

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Theoretical Background

Act XVIII of 1879 on the Mandatory Teaching of the Hungarian Language

Following decades of aspiration, the modern educational system in Hungary was established during the Dualist period starting in 1867, within the framework of the Austro-Hungarian Monarchy. Act XXXVIII of 1868 mandated general and compulsory primary education from the age of six, regardless of gender, nationality, religion, or place of residence. The preparation and initial implementation of this law are primarily attributed to József Eötvös, Minister of Religion and Public Education, who also played a significant role in drafting the Nationalities Act of 1868. Paragraph 58 of the Education Act, in sync with the spirit of the Nationalities Act, stipulated that every pupil should receive instruction in their mother tongue, provided that language was prevalent in the community (Corpus Iuris, Act XXXVIII of 1868). Neither this act nor Act XLIV of 1868 mandated the compulsory teaching of the Hungarian language in elementary schools. The law declared full linguistic equality for the individual: “every citizen may freely use their mother tongue in dealings with the state government, their own ecclesiastical, school, and municipal authorities, and shall receive information and adjudication in their mother tongue from their officials” (Corpus Iuris, 1868). According to a 1869 report by the Ministry of Religion and Public Education, out of 13,292 elementary schools in Hungary, 5,818 used Hungarian as the sole language of instruction, while 1,286 were mixed-language schools (Mikó, 1944, p. 431). Consequently, in 46.55% of schools, the Hungarian language was neither used nor taught. By 1877, out of 15,486 schools, 7,024 used Hungarian exclusively as the language of instruction (House of Representatives Journal, 1879, p. 242). A significant innovation related to the law was the 1868 launch of *Néptanítók Lapja*, which, in addition to the Hungarian version, was published weekly in six minority languages, reaching virtually every school and teacher. This policy-oriented and methodological journal supported the implementation of the Education Act as much as the curricula and textbooks published in various languages. Its role was equally vital concerning the teaching of the Hungarian language.

In the second half of the 1870s, a shift occurred in Hungarian cultural policy. This was partly due to the death of József Eötvös (1871), who had only just launched the educational reforms and whose passing left a vacuum in the ministry. Furthermore, Hungarian political life was changing, influenced by socio-economic modernization and international shifts in education. After 1875, similar to other countries in Western and Central-Eastern Europe, a combined role of conservative-liberal forces took hold in Hungary. The policies of Prime Minister Kálmán Tisza were not free from measures against nationalities, garnering support both within the Liberal Party and among impatient nationalists (Szász, 1987, p. 1168). Debates over minority rights were frequent in parliament and the press. After 1875, “the official use of the Hungarian state language gradually expanded far beyond the boundaries set by the Nationalities Act” (Katus, 1987, p. 1337).

In 1879, under the ministry of Ágoston Trefort, Act XVIII on the mandatory teaching of the Hungarian language was passed (Corpus Iuris, Act XVIII of 1879, p. 86). Trefort’s goal was not forced Magyarization (which characterized the later *Lex Apponyi* of 1907) but the creation of state unity. He believed a common language was a fundamental prerequisite for a modern bourgeois state and economic development. This law initiated the process intended to forge post-Compromise Hungary into a more cohesive cultural and linguistic community. The government viewed it as a tool for modernization and patriotic education, whereas Hungary’s ethnic minorities received it with suspicion, many viewing it as an assault on their autonomy and the first step toward assimilation.

Paragraph 4 of the act contained the controversial provision stating that the introduction of the Hungarian language was mandatory in all public elementary schools, to be implemented gradually if a qualified teacher was unavailable (Corpus Iuris, 1879, p. 86). Fulfillment of this law naturally required thousands of Hungarian-speaking teachers in minority schools; thus, Paragraphs 1–3 addressed teacher training. Accordingly, non-Hungarian teacher training colleges were required, even at the cost of increased credit hours, to teach candidates the Hungarian language. The law permitted the employment of teachers graduating in or after 1882 only if they had mastered both spoken and written Hungarian. A particular problem was the vast number of teachers already in the field who spoke little or no Hungarian. For them, Paragraph 3 was guiding: they were granted a four-year preparation period to pass a Hungarian language examination (Corpus Iuris, 1879, p. 85). That same year, Decree No. 17,284 was issued, containing the curriculum for non-Hungarian language elementary schools. In single-teacher schools, 9 hours were to be devoted to teaching Hungarian speech, and 8 hours weekly to teaching reading and writing in both the mother tongue and Hungarian.

Several historians of education, such as Elemér Kelemen (2003) and Miklós Mann (1997; 2001) have presented the work of educational politicians and ministers of the Dualist era in several books and studies. In their analyses regarding Trefort's ministry, they also addressed the Education Act of 1879. Kelemen viewed the act as a strengthening of state influence over minority schools, and in one of his analyses, he wrote the following:

“contrary to the spirit of the Elementary Education Act of 1868, which established elementary schools instructing in the mother tongue, and the Nationalities Act, also adopted in 1868, both of which followed the liberal principles of individual freedom and national self-determination, the turn was initiated by Act XVIII of 1879 on the teaching of the Hungarian language in elementary schools, which made the mastery of the Hungarian language a strict condition for obtaining a teaching qualification and mandated the compulsory inclusion of the Hungarian language among elementary school subjects. This policy of linguistic dissemination, which appeared gentle at first but became increasingly coercive over time, along with the incorporation and Magyarization of minority elementary schools through administrative means, with an obvious assimilatory agenda and generating ever-more severe conflicts, runs like a red thread through the school and political history of the era” (Kelemen, 2003, p. 50).

Miklós Mann viewed this legislation as a departure from Eötvösian principles, writing the following:

“Regarding the nationalities question, Trefort increasingly adopted the political objectives of the landed class, which differed so greatly from liberal thought. By amending the Elementary Education Act in 1879, he ordered the mandatory teaching of the Hungarian language in all elementary schools, and gradually required a knowledge of the Hungarian language from teachers graduating from non-Hungarian training colleges as well” (Mann, 1997, p. 198–199).

Furthermore, the institutional and social dimensions of these legislative shifts have been extensively analyzed by Péter Donáth. Donáth underscores that the implementation of mandatory Hungarian language training placed an immense structural and pedagogical burden on minority and denominational teacher training colleges, which struggled to adapt their curricula and staff to the rapidly escalating state demands regarding linguistic loyalty. (Donáth, 2008) This transition is further contextualized by the educational sociologist Péter Tibor Nagy (2011), who identifies Act XVIII of 1879 as the primary catalyst for the expansion of state control over the educational sphere. Nagy emphasizes that the legislation was backed by a rare consensus between the ruling party and the opposition, representing a collective shift away from the liberal Eötvösian minority policies toward a more centralized state ideology, a move famously contested by opposition figure Lajos Mocsáry as the crushing of peaceful coexistence.

Néptanítók Lapja (The People's Teachers' Gazette)

The source base for this study, alongside parliamentary journals and the text of the law, consists of the 1879 articles of Néptanítók Lapja, one of the most influential organs in Hungarian educational history. The journal was founded in 1868 by Baron József Eötvös, immediately following the adoption of the Elementary Education Act (Act XXXVIII of 1868). Its primary objective was to serve as the official intermediary channel between the state and the elementary teaching body, facilitating the construction of a bourgeois school system and the dissemination of pedagogical professionalism. Throughout its existence (1868–1944), it remained the official bulletin of the Ministry of Religion and Public Education. Distributed free of charge to every elementary school, its influence among rural teachers was inescapable. The editors and regular contributors were prominent educators and ministry officials of the era, ensuring the direct expression of the government's will. The journal's content was built upon three distinct pillars:

- Official Section: Containing ministerial decrees, circulars, and textual explanations of new laws (including the 1879 Language Teaching Act).
- Methodological Column: Providing practical guides, model lessons, and didactic treatises. This section hosted debates on the most effective methods for teaching Hungarian and introduced the latest textbooks.
- News and Correspondence: Featuring field reports from rural teachers, grievances, and accounts of the everyday difficulties of popular education.

The analysis of Néptanítók Lapja is crucial because the journal simultaneously represented power expectations and pedagogical professionalization. It did not merely issue instructions; it constructed the ideological and methodological framework in which “Magyarization” appeared as a modernizing achievement and a patriotic duty. This press history source allows us to examine not just the law itself, but its discursive implementation:

how the state attempted to convince teachers, and through them, minority communities, of the necessity of language acquisition. The use of the Arcanum digital archive ensured full-text searchability, allowing for a systematic quantitative and qualitative processing of the 1879 article material.

Methods

The parliamentary debate preceding the vote on the law was processed through document analysis of the printed journals of the House of Representatives, while the 1879 articles of *Néptanítók Lapja* were processed via manual qualitative content analysis. (While the legislative process involved both chambers, this study constrains its focus exclusively to the debates of the House of Representatives (Képviselőház) and does not address the discussions within the House of Magnates (Főrendiház).) Data management for the latter was conducted in a structured digital research log (Microsoft Excel), where each article received a unique identifier (ID) and was categorized based on a pre-defined coding system. During the coding process, recurring themes such as pedagogical methodology, nationalist rhetoric, and practical challenges of implementation were identified. This spreadsheet-based approach allowed for the systematic organization of key quotes, facilitating both thematic synthesis and a quantitative overview of discourse frequency during the examined year.

To ensure coding reliability, a coding manual was developed. Each category was defined: “Pedagogical Methodology” referred to technical educational advice; “Nationalist Rhetoric” included arguments linking language to political loyalty and nation-building; and “Practical Challenges” focused on the socio-economic obstacles to implementation. Additionally, a further category was established to capture the complexity of the educational arena: “The Teacher’s Dual Role” examined the professional identity of educators as state agents of modernization. The results of the qualitative research were supplemented by an examination of numerical data from contemporary censuses and statistics to unfold the topic in its broadest context.

Table 1. Coding Manual

Code Name (English)	Code Name (Hungarian)	Definition / When to use?	Examples / Keywords
Pedagogical Methodology	Pedagógiai módszertan	The technical and didactic aspects of language teaching; concrete instructional advice.	szemléltetés (<i>object lessons</i>), ismétlés (<i>repetition</i>), beszédgyakorlatok (<i>speech exercises</i>), direkt módszer (<i>direct method</i>), tankönyvhasználat (<i>use of textbooks</i>)
Nationalistic Rhetoric	Nacionalista retorika	Linking language with political loyalty, state unity, or national identity.	állameszme (<i>state ideology</i>), hazafias kötelesség (<i>patriotic duty</i>), egységes nemzet (<i>unified nation</i>), nyelvi lojalitás (<i>linguistic loyalty</i>), kultúrfőlény (<i>cultural superiority</i>)
Practical Challenges	Gyakorlati kihívások	Administrative and infrastructural obstacles to the implementation of the law.	tankönyvhiány (<i>shortage of textbooks</i>), szakképzetlen tanítók (<i>unqualified teachers</i>), ellenőrzési nehézségek (<i>difficulties in monitoring</i>)
Teacher’s Dual Role	A tanító kettős szerepe	The educator as both a professional and a political agent of modernization/the state.	népnevelő (<i>educator of the people</i>), kulturális misszió (<i>cultural mission</i>), az állam őre (<i>guardian of the state</i>), erkölcsi példamutatás (<i>setting a moral example</i>), új pedagógiai szemlélet (<i>new pedagogical mindset</i>)

Findings

Parliamentary Debate on the Act

The parliamentary debate leading to the adoption of the act vividly illustrates the emergence of the predefined codes, transitioning between Nationalistic Rhetoric and the anticipation of Practical Challenges. On April 29, 1879, Gábor Baross introduced the bill for general debate. He argued that the law would not infringe upon the autonomy of denominations or nationalities. In his view, the Hungarian language was essential for mutual understanding and participation in public life. He also emphasized the expected pedagogical impact: providing teachers with an avenue for patriotic education. Baross further justified the bill by noting that ethnic minorities were falling behind in secondary education and argued that while minorities were backed by large “mother nations,” the Hungarians would vanish if they lost their language. His speech, which was not devoid of anxiety,

also posited that in exchange for equal rights, the state could rightfully demand the fulfillment of civic obligations (House of Representatives Journal, 1879, p. 242–243). Although the records indicate “general and lively applause” at the end of Baross’s speech, the debates, which remained on the agenda until mid-May, hardly reflected universal approval. Numerous representatives voiced concerns regarding the preservation of minority languages, cultures, and ecclesiastical autonomy.

Nationalist representatives such as Adolf Zay, Lajos Mocsáry, Károly Gebbel, Sándor Román, Milos Dimitrievics, and others argued vehemently against the bill. However, some minority lawmakers (e.g., Péter Stojkovic for the Serbs, Sándor Máriássy for the Szepes Germans, and József Zsámbokrétly for the Nyitra Slovaks) supported the proposal. Both sides frequently cited moments from Hungarian history and international precedents. István Nagy argued that the law was necessary to foster a sense of national belonging, whereas Lajos Mocsáry cautioned against rekindling ethnic strife amidst Pan-Slavic and Germanic threats (House of Representatives Journal, 1879, p. 262). Beyond legal and political arguments, pedagogical points were frequently raised. The Serbian representative Maximovics quoted Comenius: “to introduce a language other than the mother tongue into the school is like teaching a child to gallop before they can walk” (House of Representatives Journal, 1879, p. 357).

Ágoston Trefort, Aladár Molnár, Kálmán Tisza, and others maintained that the intent was not forced Magyarization but ensuring that every citizen understood the state language (Trefort, 1888, p. 14–24). They emphasized that the law aimed not to coerce, but to provide a right to learn the language, as it was in the interest of every citizen (Katus, 1987, p. 1343). Despite claims that minorities themselves were demanding the law, a point fiercely contested by Romanian and Serbian representatives, the bill passed without significant modification, and Sándor Román’s counter-proposal was defeated.

Arguments in the 1879 Issues of Néptanítók Lapja

Following the promulgation of the law, the pedagogical press was flooded with related writings. Néptanítók Lapja devoted significant space to presenting “results” and methods. Teachers from across the country competed to share their views. Some focused on methodological innovations, such as detailed reviews of new Hungarian textbooks. Others articulated arguments in favor of teaching the language or reported on supplementary language courses.

In terms of the core code of Nationalistic Rhetoric, the summer issues of 1879 published predominantly enthusiastic contributions highlighting civic duty and state unity. Key arguments included: the minority population recognizes the necessity of the state language (Bihari, 1879; Kaposy, 1879); the Hungarian language fuses the population into a unified whole (Zajzon, 1879); and it contributes to the survival of the Hungarian state (Erdődi, 1879). One contributor noted: “I hardly think I err in stating that this law meets the wishes of most non-Hungarian speaking teachers... for their own cultivation and advancement” (Bihari, 1879, p. 186). Others described teaching the language as a “sacred duty” (Erdődi, 1879, p. 435).

Significantly, authors like Péter Bihari argued that the law did not seek to deprive any nationality of its language, but merely to provide those who do not attend higher schools an opportunity to learn the state language during a few weekly hours (Bihari, 1879, p. 182–185). Methodologically, the contributors were optimistic. Reports mentioned children enjoying Hungarian folk songs more than their own (Kaposy, 1879) and advocated for “natural methods” based on object lessons and lifelike conversations (Skultéty, 1879; Emericzy, 1879). Gyula Berecz emphasized maintaining interest at all levels and suggested that teachers should verify understanding by asking students to translate words back into their mother tongues (Berecz, 1879, p. 207–211). Erdődi summarized the goals as understanding oral and written speech and achieving fluency in expression, arguing that “practice comes first, and grammar only second” (Erdődi, 1879, p. 436). Concurrently, the articles heavily reflected the code of Pedagogical Methodology, where authors and teachers remained highly optimistic about speech-centric language acquisition.

Discussion

The discourse in Néptanítók Lapja reveals a contradiction between pedagogical modernization and political assimilation. On one hand, the promotion of the “natural method” (direct method) represented a progressive shift toward communicative competence. On the other hand, this methodological professionalism served as a tool for a centralized nation-building program. In reality, despite positive reports, implementation was fraught with difficulty.

Starting in the summer of 1879, six-week supplementary courses were organized for teachers. Reports on these courses were notably more critical. They were often unpopular and ineffective; it was illusory to expect adults to master a foreign language in 6–8 weeks. Furthermore, the courses imposed a financial burden on school providers for travel costs. Minority teachers often viewed the law with resentment, and the daily allowance of 70 krajcárs provided little incentive for studying 4–5 hours daily in the summer heat. Some hoped that hosting these courses in Hungarian cities would foster “better feelings” toward Hungarians through hospitality (Barsch, 1880, p. 599). The challenges surrounding the supplementary courses and teacher burnout directly map onto the code of Practical Challenges, revealing a severe gap between legislative expectations and rural realities.

The success rate was dismal: only about 2–3% of attendees passed the language exam. Some critics blamed the teachers’ general lack of education, citing examples of educators who could not even count backward in their own language. Erdődi (1879, p. 458) highlighted the issue of burnout: in single-teacher schools, the sheer number of compulsory subjects made adding Hungarian language instruction nearly impossible. Consequently, a boom in textbook publishing occurred, though many were criticized for being too grammar-heavy, modeled after secondary school manuals.

Our findings support the idea that the 1879 Act did not merely aim for bilingualism; it redefined the elementary school as a space of civic loyalty where Hungarian functioned as a primary “civilizing” tool. This aligns with Weber’s (1976) concept of “internal colonization,” where the state uses the school system to erode local identities in favor of a standardized national one. The emphasis on speech-centered methods indicates that the state required loyal citizens who could understand and respond in the state language, rather than linguists.

Statistical data confirms that progress was slow. In 1880, 2,529 teachers spoke no Hungarian at all (Mikó, 1944). A decade later, nearly 2,000 teachers still could not teach the language, and 2,400 schools showed no results (Katus, 1987). The 1891 census noted that while some “Magyarization” was evident among the youth, it was driven more by social contact than by schooling. By 1900, 40% of the population still did not speak Hungarian. This failure led to a series of increasingly strict decrees (e.g., No. 72,000 in 1905), which introduced disciplinary actions against “unsuccessful” teachers. Furthermore, the state’s expectations regarding the Teacher’s Dual Role became evident during the turn of the century, as a teacher’s attitude toward teaching Hungarian became the primary criterion for professional evaluation.

Conclusion

In summary, the systematic review of parliamentary records and the analysis of *Néptanítók Lapja* demonstrate that Act XVIII of 1879 was a key instrument in the transition from a traditional multiethnic educational space to a centralized, modern nation-state model. While the pedagogical methods promoted were innovative, their primary function remained the political integration of non-Hungarian speakers. The Hungarian school system became a “frontier” of national identity construction, where professionalization was inextricably linked to linguistic loyalty. Despite these efforts, implementation remained incomplete. Future research should contrast these official narratives with the reflections of the contemporary minority and opposition press to gain a more nuanced understanding of local strategies of resistance and adaptation. Ultimately, the legacy of these 19th-century language policies continues to inform Central European debates on educational equity and linguistic rights today.

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Thematic Article

Department history research and collections in the service of understanding the Debrecen school of educational sciences

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Abstract

Exploring the history of the Department of Educational Studies in Debrecen, as well as the history of university teacher training and the practice school, began in 2002 under the leadership of László Brezsnýánszky with the collaboration of the “Debrecen School” research group. In our study, we summarize the main results and present the collections under the supervision of the department, as well as the professional forums on departmental history organized by it. According to our findings, the Debrecen School of Educational Sciences – its various organizational units – possessed three functions: 1. It provided for the education of the scientific next generation in its own field of expertise; 2. It conducted training in its own discipline and announced lectures on pedagogical subjects for the interested circle of the student body; 3. It performed the instructional tasks of theoretical pedagogical courses for teacher candidates, and additionally carried out organizational and supervisory work in this field. The state university of Debrecen carried on the traditions of its predecessor, the Reformed College. In departments critical to the shaping of worldviews, such as pedagogy, Reformed faith and ecclesial commitment remained vibrant until 1950. In the years following the foundation (1912), lectures on educational science were held by the professor of the Department of Philosophy (Béla Tankó); later, the now independent Department of Pedagogy sought to strengthen its prestige with a more diverse and colorful range of lecture offerings. In his lectures, Professor Gyula Mitrovics strived to present the fields of science according to the traditional division of pedagogy (theory of education, history of education, didactics), while in his seminars, he covered the significance of the intelligence tests he conducted and of experimental pedagogy. Sándor Karácsony already spoke to his students about the practical questions of school educational work. The era of Béla Jausz and László Kelemen was about stabilization, the strengthening of the position within the Faculty of Arts, and the alignment with the direction and research designated by socialist educational science. During Kelemen’s leadership, the preparation for the independence of units growing out of the individual departmental groups took place.

Keywords: University of Debrecen; Department of Educational Studies; department history research

Choice of Topic

Choosing a research topic is not easy in every field. The well-known slogan of journalists and humorists, “The topic lies in the street” (Siegfried Brachfeld), does not always help in historical research. However, even here there are anniversaries of historical importance, unresolved or reinterpretation-worthy events and processes that motivate scholars to conduct research. Data, manuscripts, and bodies of work emerge that are worth uncovering and honoring.

Our present study is based on similar motivations in several respects. We pay tribute to the memory of the distinguished former professors of the Institute of Educational Studies and Cultural Management, while also

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honoring the current director, who, like his predecessors, tirelessly represents the interests of educational science within the Faculty of Humanities. Following the example of earlier teachers, he continues to build a growing circle of students and directs research that rapidly responds to changes in educational practice.

The position of educational science was already quite contradictory in the 19th century at Hungarian university faculties of humanities, and the first half of the 20th century was no more favorable. No other discipline had to prove its theoretical foundations as often and as thoroughly, and no other field's representatives faced as many unjust attacks and devaluations as professors of educational science. Meanwhile, in public education – especially in elementary and lower secondary schools (*polgári iskola*) – the opposite trend was visible: practitioners expected much from educational research and recognized its value.

As we know from psychology, a constant sense of threat and the fear of losing prestige can be stimulating up to a certain point: the desire to prove oneself is precisely what inspires the representatives of sciences with perceived questionable prestige to work even more diligently. Since these oeuvres were often not appreciated according to their true significance even in their own time – whether due to the tension between Budapest and the countryside (as there was already a tendency to underestimate, undervalue, or marginalize the results of rural researchers through silence), or due to personal conflicts and clashes of interest – there was plenty to (re)discover and uncover from the life's work of the former professors of educational science in Debrecen and the circle of disciples who formed their intellectual entourage at the turn of the millennium.

The debt of the successors toward their predecessors also accumulated because, during the forty years of state socialism, it was not advisable to research or analyze the work of the representatives of pre-1950 bourgeois and Christian pedagogy; collective memory erasure operated within the educational science of that era as well. During the change of regime, Sándor Karácsony was the first to be reinstated among the ranks of predecessors worthy of merit. Although his former students were no longer young, they were still energetic and enthusiastic enough to establish societies and associations cultivating the Karácsony cult. Under the care of the leaders and founders of the The Csökme Circle (*Csökmei Kör*), the republication of his works also began.

However, the reintegration of Mitrovics into the intellectual pantheon of respected predecessors was not as simple. Even in 1995, László Vaskó pointed out the responsibility of the successors with some resentment in one of his studies: “So far, no comprehensive work or more serious analysis of his pedagogical activity has unfortunately been published. Naturally, this is primarily the fault of the colleagues in Debrecen” (Vaskó, 1995, p. 17). The remark was justified, as at that time, other departments of pedagogy (Eötvös Loránd University, József Attila University) were already well underway with research aimed at the re-evaluation and detailed analysis of the lifework of former eminent professors of pedagogy (e.g., Németh, 1992; Gácser & Pukánszky, 1992).

Our Research Aims and Results

Intensive department-history research began in 2002 at the University of Debrecen's Institute of Educational Sciences, led by László Brezsnyánszky. In the second phase of the work, between 2006 and 2010, major volumes and studies summarizing results were published, becoming widely cited works in Hungarian educational history. The publication and dissemination of our results at various forums were supported by “The Debrecen School” Project (OTKA T043016).

Our research aimed to uncover the specific characteristics manifested in the activities of the pedagogical school of Debrecen. Using written and oral sources, we examined the functioning of the pedagogical workshop at the University of Debrecen between 1912 and 1970, including its roots in the Reformed College prior to the university's foundation. We studied organizational and content aspects of training for scholars, teachers, and specialized students, as well as the composition of student communities. The topic was rendered timely by the centenary of the University of Debrecen and the anniversary of the independent department founded in 1918, as well as the renewed interest in issues of teacher training.

In our investigations, we defined the Debrecen School of Pedagogy (whose organizational embodiment is the Department or Institute of Pedagogy or Education) as an institution performing three types of training functions and activities, stemming from the 20th-century characteristics of research universities. (We must not forget that until the second half of the 1940s, a “single-professor department” structure was most characteristic of faculties of arts; the assistant staff supporting the professor was partly in constant flux and partly performed assigned tasks without remuneration.) We analyzed the results and impacts of the pedagogical school within the framework of the following three classic areas of responsibility.

- It ensured the training of a new generation of scholars in its respective field and, in accordance with the prevailing university regulations, provided scientific qualification (awarding doctorates, overseeing habilitations, and in later periods, supporting candidates through aspirant tutorship) for those deemed suitable.
- It conducted training in its own specialized field and offered pedagogical courses (*collegia*) for the interested student body. The period under review saw the organizational and disciplinary differentiation of educational science. In 1970, the “original department” split into the Department of Pedagogy, the Department of Adult Education and Cultural Management, and the Department of Psychology.
- In accordance with the prevailing system of teacher training, it carried out the teaching duties for the theoretical pedagogical courses of teacher candidates. Within the division of teacher training tasks – which varied significantly across different periods – the university units of educational science were also responsible for broader teaching, organizational, and supervisory tasks that were more closely related to practical training.

During the research, we processed previously unexplored rectoral and faculty documents, as well as archival materials related to the university's training programs. We examined the accessible records of the Teacher Training Institute and the surviving documents of the practice secondary grammar school. In our study, we were also able to rely on the notes of remembering disciples and the accounts provided by eyewitnesses of past events.

Following the three functions mentioned above, we first sought to clarify who led the Department of Pedagogy during the period under review, under what circumstances, and with what level of effectiveness. We uncovered how the four professors (Gyula Mitrovics, Sándor Karácsony, Béla Jausz, and László Kelemen) came to head the department, in which fields of educational science their work unfolded, and what kind of circles of disciples formed around them. We were interested to discover whether any kind of professional or intellectual continuity could be identified in their principles and research.

We organized the studies on their work, disciples, and colleagues into professorial eras. From institutional records, we sought to reconstruct who earned a doctorate in pedagogy during this period. The higher education reform of 1949 thoroughly disrupted the world of universities, centralizing organizational management and prescribing curricula. In this situation, the professors' room for maneuver was significantly narrowed. For several years, the university lost its right to award doctoral degrees. After 1950, the Department of Pedagogy remained without a leader for a period; between Sándor Karácsony's forced retirement and Béla Jausz's appointment, there was a transitional period when visiting lecturers and teaching assistants covered the department's classes.

The eras of Jausz and Kelemen were characterized by stabilization, the strengthening of the department's position within the Faculty of Arts, and alignment with the directions and research defined by socialist educational science. During László Kelemen's leadership, the preparations for the independence of units emerging from the various departmental groups took place. Numerous studies and conference papers were produced regarding these professorial eras, and finally, a summary volume was published by Gondolat Publisher (Brezsnyánszky, 2007).

We compiled a list of pedagogical lectures held during each professorial era, which allowed us to identify the dominant educational science content and fields within the arts and teacher training programs of each period. Lectures in educational science were offered by the Faculty of Arts since its foundation; in the first four years, these were held by the professor of the Department of Philosophy (Béla Tankó), after which the now-independent Department of Pedagogy sought to strengthen its prestige through a more diverse and colorful range of lectures. This palette was further enriched by various private lecturers, such as Ödön Szelényi, Sándor Karácsony, Gábor Lükő, Árpád Kiss, and Tihamér Kiss.

It was also fascinating to examine how these pedagogical lectures reflected the school practices, childhood concepts, and educational policies of the given era. We found that in his lectures, Gyula Mitrovics strove to characterize and present fields of science according to the traditional divisions of pedagogy; he only addressed the significance and debates of intelligence testing and experimental pedagogy – which he himself conducted – within his seminars (Vincze, 2011; 2017). The real breakthrough was marked by Sándor Karácsony's habilitation; he was the first teacher at the university to speak to students about the practical issues of school-based educational work. His private lectures included topics that would have been unimaginable under Mitrovics, such as the following lecture series: “Technical and Economic Education in Schools” (1st semester, 1937/38), “The Problem of Sexual Education in Schools, with Special Regard to Fashionable Theories (Freud, etc.)” (2nd semester, 1937/38), “The Educational Work of the Gymnasium and the New Regulations” (1st

semester, 1939/40), and “Secondary School Education and the New Instructions” (2nd semester, 1939/40) (Vincze, 2019).

The review of pedagogical doctoral dissertations from the interwar period also provided important insights and lessons. The direct disciples and teaching assistants of Mitrovics focused on experimental pedagogical themes in their theses, but a significant number of works were also produced on the theory of education, the history of education, and methodology. Several candidates developed their dissertations from previous university essays.

During the socialist era, the launch of the Pedagogy major at the University of Debrecen in 1957 was considered a significant step forward, even though the program began with relatively low student numbers. Previously, such training was only available at the Faculty of Humanities of Eötvös University in Budapest (not counting the philosophy-pedagogy program of the Apponyi College as a precursor). The elevation of primary school teacher and kindergarten teacher training to the higher education level, the increasing student numbers at teacher training colleges, and, last but not least, the need to raise the standard of university-level teacher training all justified the launch of a Pedagogy major at one of the provincial universities as well.

In addition to the Department of Pedagogy, we also uncovered the history of other institutions involved in teacher training. During the existence of the Teacher Training Institute (1925–1950), professors of pedagogy played a significant role in both training and examination (Orosz, 2012). We succeeded in processing the pre-1945 matriculation records of teacher training, as well as the minutes of teacher examinations (basic, specialized, and pedagogical exams). The registers record detailed data on enrollment in the Teacher Training Institute; we found entries for a total of 1,717 candidates (Breznysnyánszky, 2012). Tables were prepared regarding the distribution of candidates by academic year, gender, and place of residence. From the master registers (törzskönyv), it was also possible to determine where the students applying for teacher training had completed their secondary school leaving examinations (Matura). Studies have been published on graduating groups in special situations (Breznysnyánszky, 2016; Breznysnyánszky, 2019).

The practice secondary grammar school (1936–1949), which served as the practical workshop for teacher training, had been somewhat forgotten over time. Former students – many of whom continued their studies at the university and later became esteemed experts, instructors, or researchers across various faculties – kept the memory of their beloved alma mater alive through regular reunions and writings. The history of this institution was strongly linked to our research (Vargáné Nagy, 2009). Indeed, Béla Jausz, the later professor of pedagogy, served as its director, and he invited teachers to the faculty who years later followed him to the department (András Borbély) or became prominent figures in educational science (Árpád Kiss). By processing the yearbooks and other documents of the gymnasium – which was established in a villa on Simonyi Road and continuously expanded – as well as the oral accounts of accessible former students, a thematic volume was produced regarding the work and networks of the practice school’s teachers, and the Department of Pedagogy’s involvement in the institution’s operations (Breznysnyánszky & Fenyő, 2009). In addition to the writings on the old practice school, we also commemorated those secondary schools where teacher candidates were later able to complete their teaching practice.

Reformed Church Connections of the First Two Periods of the Debrecen School

During our research, in addition to strictly institutional historical investigations, we also sought to uncover every element within the network of relationships of the first two major professorial personalities that could help explain the development of their work and careers. In the case of both Mitrovics and Karácsony, their connection to the Reformed Church was decisive, although their roots in Calvinism differed and they experienced their faith in different ways.

Karácsony’s religiosity can be characterized as a confessional Reformed conviction that grew out of popular Protestantism, while Mitrovics was raised in the atmosphere of cultural Protestantism; although he was not marked by the kind of ideological individualism typical of intellectuals shaped by liberal theology, he was far from the Bible-centeredness that strongly influenced the work of his successor. He later assumed more of a mediating role between church public opinion and state cultural policy. As a professor at the Debrecen Faculty of Humanities, he was the first to formulate that the establishment of the University of Debrecen did not pose a threat to Reformed public life through the integration of the academic divisions of the College. He addressed the future of his church in several of his articles, urging more intensive and practice-oriented clergy training and calling for more careful selection of candidates entering the profession (primarily in terms of psychological suitability).

The transmission of religious experience was more organically integrated into the life and works of Karácsony than into those of Mitrovics. Sándor Karácsony can rightly be regarded as one of the most successful Protestant evangelizers between the two world wars; he received numerous invitations to quiet days, psalm weeks, and church conferences. Professor István Török considered him an “irregular dogmatician” and described his work as follows: “In his deeply biblically grounded and highly individual pedagogical works, the doctrine of justification by faith is exemplarily realized” (Török, 1942, p. 36). His deep and living faith led him to organize a Bible-reading circle from among his closer circle of students. “Sándor Karácsony, together with his students, developed a method by which the entire Holy Scripture can be read through within two to three years: all books of the Bible, parts of the Old Testament, and verses of the New Testament are read daily in parallel” (Kovács, 2002, p. 121).

Beyond the Reformed commitment reflected in the pedagogical works of the two professors, the close relationship between the Debrecen pedagogical school and the Reformed Church manifested itself in a much more direct way even before the establishment of the independent Department of Pedagogy. The analysis of data on those who obtained doctoral degrees in pedagogy revealed that of the 114 individuals who, between 1917 and 1949, chose educational science as their main or one of their subsidiary subjects in their doctoral examination, 34 had theological qualifications or prior theological studies. This represented 29% of those earning doctoral degrees in pedagogy in Debrecen during this period. Neither in Budapest nor in Szeged was it typical that such a high proportion of doctoral candidates in pedagogy had theological backgrounds or were practicing clergy.

Among those who obtained doctoral degrees in pedagogy in Debrecen before 1950, one can find names of individuals who later became leading figures and distinguished authors within their church. These include Dezső Fonyad, Lajos Segesvári, Zoltán Péter, Mihály Bucsay, and Sándor Csighy. Kálmán Újszászy and Tihámér Kiss also obtained their doctorates here; both taught pedagogy, though Újszászy only for a short period, while Kiss devoted his entire career to pedagogy and psychology.

These results of our research convincingly supported what we had previously assumed: the state-maintained University of Debrecen not only continued the traditions of its predecessor institution (the Reformed College), but in those departments that played a direct role in shaping students’ worldview, commitment to the Reformed faith and church remained alive until the communist turn made its impact felt in higher education (Vincze, 2015).

Collections of the Department of Educational Studies

The first legacy that entered the department’s library in the early 1930s was the pedagogical book collection of Ödön Szelényi (see Ugrai & Vincze, 2005). This collection was integrated into the departmental library and was not preserved as a separate unit. The Szelényi legacy mainly contains Hungarian and German-language professional books, as well as small-circulation German doctoral dissertations and school year books.

Currently, the Institute of Educational Studies and Cultural Management – and as part of this, the Department of Educational Studies – houses two major source collections. It preserves and maintains them and supports their research, presenting the results at thematic conferences organized by the institute (Kiss Árpád Memorial Conference and the Kiss Árpád and Sándor Karácsony Collection Symposium).

One of the collections contains the professional legacy of Árpád Kiss (1907–1979), an indispensable figure in 20th-century educational science research. He was born in Csernátfa (Cernatu, today in Romania), in the southeastern part of the former Kingdom of Hungary. He began his secondary education in nearby Brassó (Braşov) and later studied in Balassagyarmat. Between 1926 and 1932, he studied French and German language and literature at the Pázmány Péter University in Budapest. After obtaining his diploma, he worked as a secondary school teacher, first in Balassagyarmat (1932–1939), then in Debrecen at the university practice secondary grammar school established in 1936 (1939–1944). In 1935, he obtained a doctoral degree in French philology in Budapest.

In 1945, he was appointed executive director of the National Council of Public Education, the advisory body of the Ministry of Education, thus gaining a significant role in educational policy, which he held until 1948. His most important activity was the development of the concept and curriculum of the new eight-grade elementary school system. He also continued scientific research. In 1946, he obtained the title of private university lecturer in Debrecen. Until 1949, he worked at the National Institute of Educational Science as head of the didactics department and later taught at the Budapest Primary Teacher Training Institute.

Following the communist takeover, he too became a victim of political purges and was interned in 1951. After his release two years later, he was employed as a primary school teacher and then as a lecturer in a primary teacher training college. His scientific career resumed in 1956 at the Pedagogical Research Institute. He retired in 1976 as head of the Didactics Department of its successor institution, the National Institute of Pedagogy. He played an important role in integrating Hungarian educational science into the international scientific community; under his leadership, Hungary joined the IEA studies in 1969 as the first socialist country (Kiss Árpád).⁴

The valuable estate of Árpád Kiss, rich in manuscripts, was organized by his wife, Dr. Irén Darkó (1920–1995), a secondary school teacher. Following her death, the work was continued by their son, Endre Kiss (1947–), University Professor of Philosophy. With the assistance of Zoltán Báthory and Tamás Kozma, the archive was transferred to the Department of Pedagogy at Kossuth Lajos University in 1997, where an Árpád Kiss Memorial Room was established.

The main components of the Árpád Kiss Collection are as follows:

1. Library of pedagogical and psychological works (books and journals in Hungarian and foreign languages);
2. Manuscript legacy (including manuscripts and proofs of published works);
3. Árpád Kiss's own published works;
4. Official and professional correspondence (including a small number of personal letters);
5. Publications related to his professional activities, inscribed copies, photographs, and official biographical documents;
6. Letters and documents related to the professional work of Mrs. Árpád Kiss.

Since 1999, the Department of Educational Studies has organized the Árpád Kiss Memorial Conference in Debrecen every two years, chaired by András Buda and Endre Kiss. This two-day event, now in its 14th year, has grown into a gathering of national significance. While the presentations cover all fields of educational science, the life and work of Árpád Kiss remain a featured theme at every conference (Kiss, 2012).

The second collection of the Department of Educational Studies is the Sándor Karácsony Collection, which was established by one of Sándor Karácsony's former students, Dr. György Kontra (1925–2007), a physician and teacher. It was donated to the Institute of Educational Sciences at the University of Debrecen in 2011 by his son, Miklós Kontra, University Professor of Linguistics.

Sándor Karácsony (1891–1952) was a 20th-century multidisciplinary thinker whose work was equally outstanding in the fields of educational science, psychology, linguistics, and philosophy. Born in Földes, he completed his elementary studies there. Between 1902 and 1910, he studied at the Reformed College of Debrecen. From 1911 to 1918, he was a student of Hungarian and German Language and Literature at the University of Budapest.

He initially worked as a secondary grammar school teacher in Kassa (Košice, today Slovakia), then for eight years at the Zrínyi Miklós Grammar School in the capital. Karácsony played a leading role in several youth movements of the era. From 1927, he became involved in linguistic research (lexicography) at the Hungarian Academy of Sciences. He earned his doctorate at the University of Debrecen in 1929, where he obtained his habilitation in 1934, subsequently delivering lectures on a regular basis.

In 1942, he was appointed Full Professor in Debrecen, and he served as the Head of the Department of Pedagogy until 1950. In 1945, he was appointed President of the National Council of Adult Education (Szabadművelődési Tanács). During this period, he once again held a key position in the Scout Movement. However, the communist takeover disrupted his career as well. He passed away shortly after being forced into retirement (Vincze, 2019; Vincze & Rébay, 2025).

The Sándor Karácsony Collection comprises, on one hand, the published works of Karácsony and, on the other, the professional literature written about him. Its main thematic units are as follows:

1. Works by Karácsony (first and subsequent editions) organized into categories such as fiction, religion, social psychology, pedagogy, and others;
2. Works about Karácsony;
3. Works by the students of Sándor Karácsony (e.g., the works of Imre Dankó, Ferenc Fabricius-Kovács, Sándor Gellért, Miklós Heltai, Sándor Jánosi, Gábor Lükő, Andor Oláh, Lajos Szathmáry, Mária Székácsné Vida, and László Vekerdi);
4. Publications issued by Exodus Publisher;

⁴ <https://www.arcanum.com/hu/online-kiadvanyok/Lexikonok-magyar-eletrajzi-lexikon-7428D/k-760F2/kiss-arpad-76416/>.

5. Other publications closely related to Karácsony's activities, including the newspapers and journals edited by him (e.g., *Az Erő*, *Magyar Ifjúság*, *Pro Christo*, *Új Szántás*, etc.) (Kontra, 2011).

A small part of György Kontra's Sándor Karácsony Collection was originally owned by another of Karácsony's students, Dénes Kövendi (1923–2011); these items were added to the Kontra Collection in accordance with the wishes of his children.

The collection, which was handed over together with a detailed catalogue, also includes numerous small prints, invitations, press clippings, photocopies, photographs, index cards (primarily those of György Kontra), and handwritten or typewritten notes and documents. Its primary value lies in the fact that it provides a centralized location for studying works, documents, and references related to Karácsony that are otherwise only available in a scattered manner elsewhere (Kontra, 2011).

In 2022, the Karácsony Collection was expanded with the estate of a third student, Zsófia Révész (1922–2021), thanks to her daughter, Ágnes Paraczký, who described her mother as follows: "Teacher Zsófia Révész belonged to Sándor Karácsony's circle from her youth. She attended his lectures and discussions and disseminated the great educator's writings. Until the end of her life, she read the Bible according to the Exodus Bible Reading Guide, which was established based on Sándor Karácsony's principles" (Paraczký, 2022).

The Révész Legacy consists of books by Sándor Karácsony (monographs and edited volumes), as well as writings about him. It also includes two manuscripts. One is a document titled "The Front at Csucsa" (A csucsa-i front) by Sándor Jánosi, of which only a few copied manuscript examples survive. In this work, the author interprets and evaluates Karácsony's novel of the same title and includes the reminiscences of the elder Miklós Heltai (Brezsnyánszky, 2023). The other is a memoir by Lajos Szathmáry titled "In memoriam S. B. (Sándor Bácsi⁵)", written in 1960. Beyond their personal relationship, it provides interesting information regarding Karácsony's scouting activities. This piece could only be published in the 1980s (cf. Szathmáry, 1980 and 1982). Both manuscripts are made unique by a large number of pasted-in photographs.

Collection Symposia and Collection Booklets

The Sándor Karácsony and Árpád Kiss Collection Symposia serve as a forum for research related to the collections managed by the Department. The event was first organized in 2012. Following the forced hiatus caused by the COVID-19 pandemic, the series resumed, with the 10th symposium taking place in 2025. At these mini-conferences, which typically feature 4–5 presentations, both University of Debrecen students involved in collection-based research and senior researchers from various higher education institutions focusing on the namesakes have delivered lectures. The focus has alternated between the life's work of Sándor Karácsony and Árpád Kiss, while also providing a platform for studies exploring the history of the Department of Educational Studies in Debrecen.

The presentations delivered at the symposia – compiled from multiple events – have been published in the series "Gyűjteményi füzetek" (Collection Booklets), edited by Magdolna Rébay and published by the Institute of Educational Studies and Cultural Management. To date, three volumes have been released in Hungarian; their titles, translated into English, are:

1. Our Predecessors: Sándor Karácsony, Árpád Kiss, Béla Jausz (Debrecen, 2014);
2. Sándor Karácsony, Gyula Mitrovics, and Their Students (Debrecen, 2018);
3. Pedagogy in the Era of (Pre-)Socialism (Debrecen, 2021).

Closing Remarks

The momentum of research into the history of the Department of Educational Studies has somewhat slowed in recent years, but those researchers who were previously the most active in the research group coordinated by László Brezsnyánszky have continued their work. New studies continue to be published on specific topics by László Brezsnyánszky (2020; 2021), Imre Fenyő (2018; 2019), and Tamás Vincze (2021; 2025).

The collections presented provide rich and valuable source material for further research, including manuscripts (such as Árpád Kiss's literary efforts) that may reveal previously unknown facets of individual scholars or educational researcher.

Through our departmental historical investigations, we aimed not only to explore the past but also to serve the present and the future by helping current staff and students of the Institute of Educational Studies and

⁵ Uncle Sándor.

Cultural Management gain a more nuanced and accurate understanding of their institution's past and the professional achievements of the past century.

With the writing of this study – in addition to offering a worthy tribute to our Honoree, Professor Gabriella Pusztai –, our goal was also to introduce our professional historical research to an English-speaking audience.

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Thematic Article

Recent graduates and labour market competencies – Issues of horizontal matching

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Abstract

This study examines the differences between the competencies possessed by recent graduates and those required in their jobs, with particular attention to horizontal matching. Its theoretical framework integrates human capital theory, job matching models, the skill mismatch approach, and competence theories, highlighting the growing importance of transversal and non-cognitive skills. The analysis is based on the Hungarian dataset of the Eurograduate 2022 survey (N = 6,797) and compares possessed and required competencies based on graduates' subjective self-assessments, while also examining the degree of horizontal mismatch. According to the results, in most of the examined competencies, only moderate differences can be observed between the required and actual levels, and in several cases, recent graduates rate their own competencies higher than those required for their work. Prominent differences can be observed in some dimensions of digital and communication competencies. Horizontal matching is high, although significant differences are observed by level and field of education. The findings suggest that both the level and the type of competencies play a decisive role in labour market matching, while mismatch is more of a differentiated rather than a general phenomenon.

Keywords: competence typologies; labour market competencies; matching; skill mismatch

Introduction

The transition from higher education to the labour market has become a central topic in social science research over recent decades, particularly in the context of skill mismatch and skill gaps (CEDEFOP, 2010; Allen & van der Velden, 2011; McGuinness et al., 2018; Teichler, 2018). Although graduate employment has expanded, numerous empirical studies point to persistent tensions between knowledge acquired in higher education and labour market expectations, especially in the domain of transversal and non-cognitive competencies (Balcar, 2014; Kautz et al., 2014; Nyilas, 2023; Tóth, 2025).

The concept of competence is not uniformly defined in the literature; however, increasing emphasis is placed on generic and transversal competencies that are not closely tied to a specific occupation but are nevertheless crucial for employability. In this context, higher education appears in a dual role: on the one hand, as a key institution for competence development, and on the other hand, as a frequent target of criticism for its perceived lack of practical relevance (Filep et al., 2012; Sági, 2013; Veroszta, 2014).

Both international and Hungarian studies (e.g. CHEERS, REFLEX, HEGESCO, as well as analyses based on the Graduate Career Tracking System) indicate that substantial differences exist between early-career graduates and labour market expectations, particularly in relation to soft skills, while professional knowledge is generally considered adequate (Balcar, 2014; Sipos et al., 2020).

This study examines labour market matching based on graduates' subjective competence assessments. Its aim is to explore the differences between possessed and required competencies and how these vary across social and educational characteristics. The analysis is based on the Eurograduate 2022 survey (N = 6,796).

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Our starting assumption is that significant differences can be identified between the competencies perceived by early-career graduates and labour market expectations, which reflects structural tensions between academically oriented training and labour market demands, and which is not homogeneous between the different student groups.

Theoretical and Research Background

The study of the transition from higher education to the labour market lies at the intersection of several interconnected theoretical approaches. This paper builds on four main frameworks: human capital theory, job matching models, the skill mismatch approach, and competence theories.

According to the classical human capital theory, education can be interpreted as an investment that increases productivity and yields returns in the form of higher earnings and improved labour market positions (Becker, 1964; Polónyi, 2019). This approach implicitly assumes that knowledge and skills acquired in the education system are directly utilized in the labour market. However, subsequent empirical research has shown that this matching is far from perfect, and graduates often do not fully utilize their acquired competencies (Allen & van der Velden, 2011; Teichler, 2018).

This problem is addressed by job matching theory, which posits that the quality of employment depends on the degree of fit between workers' capabilities and job requirements (Sattinger, 1993). Mismatch may take different forms, such as overeducation, undereducation, or skill-level discrepancies.

The skill mismatch literature further refines this perspective by distinguishing between vertical (educational level), horizontal (field of study), and skill-level mismatches (CEDEFOP, 2010; Manpower Group, 2015; McGuinness et al., 2018). One of its key insights is that mismatch is not merely a structural problem but a dynamic process influenced by technological change, the responsiveness of the education system, and individual competence development. The Manpower Group report also highlights that horizontal matching refers to substantive alignment in terms of field-specific, functional, and transversal skills. This typology closely aligns with labour market theories and empirical findings on the application of acquired knowledge and qualifications.

The reports *Skill Mismatch and Shortages in Europe* (CEDEFOP, 2010) and subsequent CEDEFOP analyses (2018) emphasize that shortages in transversal and non-cognitive skills play a significant role in labour market tensions, even when formal qualifications are adequate. According to CEDEFOP, addressing skill mismatch requires integrated education and labour market policy approaches.

However, these models alone do not fully explain which specific "skills" or "competencies" are affected. Competence theories provide a more precise analytical framework. Competence refers to the integrated application of knowledge, skills, and attitudes in a given context. Knowledge encompasses theoretical and factual understanding, skills refer to the ability to apply knowledge, while competence denotes the effective use of knowledge and skills in context (Winterton et al., 2006). This approach goes beyond formal qualifications and focuses on actual performance capacities.

Based on competence typologies, a distinction can be made between occupation-specific (functional) and generic (transversal) competencies (Lukácsné Hegyi, 2013). While the former are tied to specific professions, the latter—such as problem-solving, communication, collaboration, and learning ability—are widely applicable and play a key role in labour market adaptability (Balcar, 2014; Szabó, 2014; Council of the European Union, 2018). In this context, it is also important to refer to the key competences defined by the Council of the European Union (2018), including literacy, multilingual competence, mathematical and scientific skills, digital skills, personal and social competences, learning to learn, civic competences, entrepreneurship, and cultural awareness.

At the same time, the literature distinguishes between cognitive and non-cognitive skills. Cognitive skills relate primarily to information processing and problem-solving, while non-cognitive skills—such as self-regulation, perseverance, and cooperation—shape behavioural and social functioning. These two types of skills contribute in complementary ways to labour market and life outcomes.

International empirical studies (CHEERS, REFLEX, HEGESCO) consistently show that higher education is strong in the transfer of professional knowledge, while the development of transversal competencies is less emphasized, despite their growing importance in the labour market (Hager & Gonczi, 1996; González & Wagenaar, 2005; Allen & van der Velden, 2011; OECD, 2013). Similar findings emerge in Hungarian studies: recent graduates often perceive their own competence levels as lower in key areas, even though they are essential for job performance (Kiss, 2010a, 2010b; Szűcs & Fónai, 2011; Nyilas, 2023; Iharosi & Nagy, 2024).

Based on our analysis, recent graduates experienced high expectations for problem solving, independent work, collaboration, learning ability, concentration ability, and practical expertise. However, the ranking of their competencies showed that they were less likely to possess these skills (Fónai & Nyilas, 2024).

At the same time, employer expectations highlight the importance of communication, problem-solving, adaptability, and willingness to learn (ManpowerGroup, 2015). These competencies are largely transversal as well as non-cognitive, and their lack often leads to labour market problems even if the formal education is adequate. Regarding soft skills, like native language skills, foreign language communication, mathematical and natural science competencies, and digital competencies it can be seen that recent graduates consider them to be much more necessary for their work than they actually possess them (Nyilas, 2023).

By integrating these theoretical approaches, this study conceptualizes competence discrepancy in the transition from higher education to the labour market as a multi-level phenomenon. On the one hand, it appears as a structural mismatch between supply and demand; on the other hand, it varies across types of competencies, particularly in the domain of transversal and non-cognitive skills. Within this framework, the subjective competence assessments of young people starting their careers are not merely perceptions but important indicators of labour market matching.

Method and Sample, Limitations

This study analyzes the Hungarian results of the Eurograduate 2022 survey (Sági, 2024). The Eurograduate 2022 survey is an international questionnaire-based study aimed at tracking recent graduates after completing higher education, assessing their study experiences, and examining their professional careers. The project involves 17 European countries, including Hungary. The Hungarian data collection analyzed in this study was conducted between November 2022 and January 2023 among individuals who graduated or obtained their degree in 2017 or 2021, with a total population of 108,394. The cleaned dataset comprises 6,797 respondents, and the analyses presented in this study are based on this sample.

The mandatory module of the questionnaire collected basic information on respondents' socio-demographic background, higher education experiences, and labour market characteristics, while the optional module included questions on family and social background, education and employment, detailed occupational information, mobility, competencies, job satisfaction, and the match between education and work.

The aim of the analysis is to compare the competencies possessed by recent graduates with the competencies they consider necessary for their work, and based on them, to identify potential skill mismatch differences. This is achieved by comparing required and current competence levels (i.e. what is needed for the job and the level at which graduates possess these competencies). The phenomenon of skill mismatch is also examined using indicators of horizontal matching.

The research questions are as follows:

RQ1: Is there evidence of skill mismatch and competence gaps in the examined competencies?

RQ2: Do recent graduates perceive horizontal mismatch in their jobs?

The hypotheses are:

H1: Based on the findings of the literature and our previous research results, we expect that recent graduates perceive discrepancies primarily in the case of transversal, soft, and non-cognitive competencies; that is, they evaluate their own competencies in these areas as being higher than the level required in their jobs.

H2: We assume that perceived horizontal mismatch is mainly associated with the level and field of education.

One limitation of the secondary analysis is the competence list used in the questionnaire, which does not fully correspond to established competence models, as shown in Table 1. Nevertheless, the list allows for the examination of the research questions and hypotheses. A further limitation is that the analysis relies only on recent graduates' opinions; it does not include the views of higher education institutions or employers regarding required competencies. In addition, the results are based on subjective self-assessments by recent graduates. At the same time, this approach may also involve biases associated with the Dunning–Kruger effect (1999); nevertheless, subjective self-assessment remains a widely accepted methodological tool in the analysis of opinions and attitudes, and the study focuses on perceived matching rather than objectively measured competencies.

Table 1. Classification and Comparison of the Examined Competencies

Competency in the Eurograduate 2022 survey	Corresponding EU key competence	Transversal	Hard/Soft	Cognitive/Non-cognitive
Professional expertise in own field	Professional competence / learning	✗	Hard	Cognitive
Analytical thinking	Learning to learn	✓	Soft	Cognitive
Ability to rapidly acquire new knowledge	Learning to learn	✓	Soft	Cognitive
Coordination of activities	Entrepreneurial competence	✓	Soft	Non-cognitive
Productive teamwork	Social competence	✓	Soft	Non-cognitive
Clear communication	Communication competence	✓	Soft	Cognitive + non-cognitive
Use of ICT	Digital competence	✓	Hard	Cognitive
Advanced use of ICT	Digital competence	✗ (rather specific)	Hard	Cognitive
Generating new ideas	Entrepreneurial competence	✓	Soft	Cognitive
Questioning ideas	Civic / learning competence	✓	Soft	Cognitive
Presentation skills	Communication competence	✓	Soft	Cognitive + non-cognitive
Foreign language skills	Multilingual competence	✗	Hard	Cognitive

Source: own compilation.

Professional expertise and advanced ICT use are considered more specific competencies.

Hard vs. soft competencies: hard competencies are teachable and measurable (e.g. ICT, language, professional knowledge), while soft competencies are linked to behaviour and attitudes (e.g. communication, cooperation).

Cognitive vs. non-cognitive competencies: cognitive competencies relate to thinking processes (e.g. analysis, learning, language), while non-cognitive competencies relate to attitudes and social functioning (e.g. cooperation, coordination). Some competencies have a mixed character (e.g. communication).

Results

In our secondary analysis, in addition to comparing the mean values of the competence items, we analyze an index constructed from questions related to horizontal matching (the MisFit index), and then, through regression analysis, the effects of independent variables on the MisFit index are examined. Comparing the required and current competence levels shows the areas where recent graduates perceive differences (Table 2).

Table 2. Competencies Required for the Job and Current Self-Assessed Competence Levels (7-point scale, where 1 = very low and 7 = very high)

Competency	Required for current job		Current own level	
	Mean	SD	Mean	SD
Professional expertise in own field or discipline	4.94	1.745	4.91	1.183
Analytical thinking	5.03	1.534	5.25	1.177
Ability to rapidly acquire new knowledge	5.41	1.448	5.69	1.078
Coordination of activities	5.32	1.530	5.36	1.212
Ability to work productively with others	5.61	1.417	5.63	1.159
Ability to make one's message clear to others	5.65	1.420	5.40	1.207
Ability for applied use of information and communication technologies (ICT, e.g., text processing, working with tables, retrieve information from the internet, e-mail).	5.49	1.554	5.84	1.149
Ability for advanced use of information and communication technologies (ICT, e.g., programming, syntax in statistical software).	3.30	2.176	3.51	1.999
Ability to generate new ideas and solutions	5.02	1.637	5.28	1.223
Willingness to question one's own and others' ideas	4.24	1.719	4.77	1.472
Ability to present products, ideas, or reports to an audience	3.78	1.989	4.30	1.634
Written and spoken foreign language skills	4.31	2.255	4.94	1.720

Source: own compilation based on Eurograduate 2022.

A notable finding regarding the required and possessed competencies concerns the evaluation of ICT-related skills. At first glance, ICT competencies appear to be relatively less important in actual work settings, and recent graduates also rate their own competence levels in this area comparatively low. However, the questionnaire distinguishes between two different types of ICT competencies. The first refers to basic ICT use, such as word processing and spreadsheet handling, while the second refers to advanced ICT competencies, including programming and the use of statistical software. Recent graduates report high levels of competence in basic ICT use, whereas they evaluate their competencies in advanced ICT-related tasks, such as programming and statistical software applications, considerably lower. The findings suggest that digital competence should not be interpreted as a homogeneous category, as substantial differences emerge between general digital literacy and advanced, occupation-specific digital competencies.

In other areas, self-assessed competence levels are relatively high, and respondents also perceive expectations as relatively high. With the exception of two competence areas—coordination of activities and the ability to work collaboratively—only minor differences can be observed between the perceived required and current levels. In eight competence areas, recent graduates believe that their own competence levels are higher than what their jobs require. Although these differences are small and therefore do not in themselves explain potential mismatches in the horizontal matching, they nevertheless indicate a mild degree of underemployment/overqualification, at least in terms of the examined competencies.

Table 1 summarized how the competence list used in the Eurograduate questionnaire corresponds to different competence typologies. In terms of key competences, remarkable differences between required and current levels can be observed in two areas: digital competences and communication competences. Digital competence is measured through two items: on application (e.g. word processing, spreadsheets), and on use at a more advanced level (e.g. programming, statistical syntax). Significant differences emerge between these two dimensions: recent graduates report high levels of competence in applying digital tools, but rate themselves substantially lower in the “hard” dimension of digital competence (e.g. programming, using syntax), which, in most cases, is not expected by employers, since they are field- and occupation-specific competences. Similarly, workplaces do not appear to expect recent graduates to present products, ideas, or reports to the audience (communication key competence), even though respondents consider themselves much more capable in this respect.

The Eurograduate competence list primarily includes transversal competencies. In this context, recent graduates tend to feel that they possess these competencies to a greater extent than their jobs require. These transversal competencies are also soft competencies, and as the literature shows, transversal and/or soft competencies make a substantial contribution to labour market success. At the same time, transversal and soft competencies are not necessarily non-cognitive competencies, as shown in Table 1. Nevertheless, apart from ICT-related competencies, it can be stated that recent graduates possess both cognitive and non-cognitive competencies at relatively high levels, while also perceiving relatively high expectations in these areas. This is also a good predictor of the fact that they evaluate their own labour market match favourably on the main dimensions of job matching (Table 3).

Table 3. Dimensions of Horizontal Matching and Mean Values of the MisFit Index (0–4 scale)

Dimension	N	Mean	SD
Absolute horizontal match: position	5696	1.05	1.359
Absolute horizontal match: job tasks	5695	1.3048	1.39211
Absolute horizontal match: professional qualification	5706	1.4020	1.39849
Misfit index	5710	1.2539	1.09525

Source: own compilation based on Eurograduate 2022.

The questionnaire examined horizontal job matching with three questions: absolute horizontal matching in terms of position, matching in terms of job tasks, and the match between professional qualification and job (see Table 3). The original scales were transformed, without taking the direction of mismatch into account, into a 0–4 scale, where 0 indicates the highest degree of matching.

The data in Table 2 are indeed good predictors, as it can be stated that horizontal matching is high in all dimensions, and the MisFit index constructed from the three original variables also indicates a generally high level of horizontal matching. Based on the results of the Q-Q plot test, ANOVA analyses were conducted for several variables and the MisFit index. The level and field of education have a significant effect on the MisFit index, whereas among the variables examined, gender and study mode do not have a significant effect (Table 4).

Table 4. Relationship Between the Misfit Index and Level of Education

Level of education	N	Mean	SD
Bachelor's degree	3518	1.3250	1.13470
Master's degree	1668	1.1296	1.01676
Long-cycle undivided programme	608	0.9597	1.01290
Total	5794	1.2304	1.09668

Source: own compilation based on Eurograduate 2022. Sig. = .000

A linear relationship can be observed between the level of education and the MisFit index, as a higher level of education is associated with a lower mismatch score; in other words, higher qualifications are associated with stronger horizontal matching. This has important labour market consequences, for example in terms of achievable wages. The effect of field of education is also significant. The highest levels of matching are found in medicine and dentistry (.6577), teacher education (.8966), pharmacy (.9270), and information and communication technologies (.9647). Lower levels of matching characterize services (1.6258), arts (1.6146), languages, linguistics and literature (1.5867), and agriculture and forestry (1.4994), based on the Eurograduate classification of fields of education.

The high degree of horizontal matching is closely related to the regulation of access to certain occupations, since professions such as medicine, law, and teaching can only be practiced with the appropriate qualification.

These findings are partly consistent with our earlier analyses concerning recent graduates' qualifications, knowledge, and competencies in relation to horizontal and vertical matching (Fónai et al., 2014; Fónai & Csonka, 2023). One of these indicators is overqualification: among graduates of the University of Debrecen, this rate was found to be 23.7% around 2010 (Fónai et al., 2014). In another analysis, using data from the Graduate Career Tracking System, several indicators of horizontal and vertical matching were examined. In surveys conducted between 2016 and 2021, recent graduates rated the extent to which the knowledge and skills

acquired during their studies is used in their current job between 3.25 and 3.32 on a five-point scale. It is lower than the comparable indicator in the Eurograduate survey, although the direction of the two scales differs: the Eurograduate 2022 survey suggests stronger matching, whereas the Graduate Career Tracking System shows rather a moderate level of matching.

In addition to the ANOVA analyses, a linear regression model confirms the results discussed above (Table 5).

Table 5. Effects of Fields of Education and Competence Factors on the MisFit Index

Parameter	B	Std. Error	t	Sig.
Intercept	3.279	.110	29.839	.000
Education Science (non-teacher training)	-.479	.139	-3.438	.001
Teacher Training	-.678	.085	-8.012	.000
Arts	-.081	.103	-.789	.430
Humanities (except languages, linguistics, and literature)	-.324	.116	-2.782	.005
Languages, Linguistics, Literature	-.029	.096	-.300	.765
Social Sciences, Journalism, and Information	-.118	.082	-1.437	.151
Psychology	-.471	.107	-4.404	.000
Business and Administration	-.342	.076	-4.485	.000
Law	-.311	.111	-2.810	.005
Natural sciences, Mathematics, and Statistics	-.337	.088	-3.809	.000
ICT (Information and Communication Technologies)	-.504	.092	-5.468	.000
Engineering, Manufacturing, and Construction	-.406	.078	-5.227	.000
Architecture and Urban Planning	-.460	.112	-4.105	.000
Agriculture, Forestry, Fisheries, and Veterinary Sciences	-.165	.105	-1.563	.118
Medicine, Dentistry	-.743	.133	-5.600	.000
Other Medical Services	-.617	.105	-5.851	.000
Pharmacy	-.621	.238	-2.616	.009
Social Care	-.306	.140	-2.187	.029
Services	0a	.	.	.
Gender	.022	.031	.699	.484
Level of education	-.139	.025	-5.447	.000
Form of Education	.033	.033	1.013	.311
General and social competence factor	-.157	.015	-10.609	.000
Technical and professional competence factor	-.156	.014	-11.217	.000

a. This parameter is set to zero because it is redundant.

The model was prepared using services as the reference category. The results of the multivariate regression model are summarized in Table 5. The parameter estimates (B values) and their significance levels confirm that, compared to the reference category of services, all other fields of education are associated with lower mismatch. The strongest movement towards better matching can be observed in medicine and dentistry (B = -0.743), teacher education (B = -0.678), pharmacy (B = -0.621), and other medical services (B = -0.617). By contrast, although mismatch is also lower than in the reference category, the improvement in matching is relatively weaker in arts (B = -0.081) and in languages and literature (B = -0.029), where the effects are not statistically significant.

The competence factors—general and social competencies, as well as technical and professional competencies—also significantly reduce the MisFit index. In other words, higher levels of competence are clearly associated with better labour market matching.

Discussion and Conclusion

Our findings refine dominant interpretations of competence matching between higher education and the labour market in several respects. The assumption of human capital theory that competencies acquired through

education are directly utilized in the labour market is only partially confirmed. Although horizontal matching is generally high, the utilization of competencies is not uniform but varies across fields of education and types of competence. In contrast, job matching models and the skill mismatch approach provide a more accurate analytical framework: matching is not a dichotomous but a gradual and structured phenomenon.

The answers to the research questions reinforce this differentiated picture. The first question (RQ1) received only limited confirmation: although differences can be identified between the required and the existing competencies, they do not appear as a general lack of competence. Recent graduates rate their own level in several competency areas as higher than what their jobs require, which suggests underutilization or mild overqualification. The second question (RQ2) received a clearer answer: horizontal matching is high, but it is also significantly differentiated by level of education and, in particular, by field of education.

Of the hypotheses, H1 was confirmed, as recent graduates evaluated their transversal and non-cognitive competencies higher than the level required in their jobs. H2 was confirmed: the mismatch is clearly structural in nature and is closely associated with the level and field of education. Matching is stronger in programmes linked to regulated professions, pointing to the decisive role of institutional and regulatory frameworks. The results suggest that the competence-based approach is particularly useful, since it highlights that labour market matching depends not only on the level of competencies but also on their type and contextual utilization. The discrepancies observed in different dimensions of digital and communication competencies further support this differentiated interpretation.

The study also has important policy implications. On the one hand, it challenges the generalized narrative of competence shortage and points to the need for differentiated interventions tailored to specific fields of education. On the other hand, it indicates that, alongside competence development, greater emphasis should be placed on strengthening the conditions for the effective labour market utilization of competencies.

A limitation of the study is that the analysis relies on graduates' subjective self-assessments and does not include the employers' perspective. At the same time, these perceptions are relevant indicators of matching in the early-career stage. Future research should therefore integrate the perspectives of multiple actors and apply longitudinal approaches.

The findings also highlight several implications for higher education development. Although recent graduates report relatively strong transversal competencies overall, the results indicate that more targeted development of advanced digital and communication competencies may be necessary. In particular, higher education institutions could place greater emphasis on the practical application of advanced ICT skills, including data analysis, statistical software use, and digital problem-solving. In addition, the relatively lower labour market expectations regarding presentation and communication competencies suggest the importance of strengthening opportunities for applied communication tasks, project-based learning, teamwork, and audience-oriented presentations within university curricula. Closer cooperation between higher education institutions and employers could further support the alignment between competence development and labour market expectations.

Overall, the labour market position of recent graduates is shaped not by a general competence deficit, but by the differentiated utilization of competencies and by patterns of matching linked to educational structures.

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Appendix

Appendix 1. Competence Factors Required for the Current Job

Competencies required for the current job	General and social competencies	Technical and professional competencies
Coordination of activities	.799	
Ability to make one's meaning clear to others	.780	
Ability to work productively with others	.773	
Ability to rapidly acquire new knowledge	.632	.381
Ability to generate new ideas and solutions	.628	.461
Professional expertise in own field or discipline	.546	
Ability to use information and communication technologies (ICT) at an advanced level		.791
Written and spoken foreign language skills		.622
Ability to use information and communication technologies (ICT)		.590
Willingness to question one's own and others' ideas	.410	.566
Analytical thinking	.449	.546
Ability to present products, ideas, or reports before an audience	.422	.500



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Thematic Article

Competence and economy: International adult literacy assessments, knowledge capital and economic performance

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Abstract

After reviewing the measurement of adult literacy (IALS and PIAAC), the paper examines how its outcome – referred to as knowledge capital – differs from human capital. The paper also analyses the relationship between adult literacy and economic performance, briefly highlighting the debates surrounding this issue. In addition, the article examines the relationship between knowledge capital and economic development in Hungary. Finally, the study discusses adult education as a possible policy response. The analysis points to the relatively weak performance of Hungarian adult literacy competence in international comparison. This highlights the potential importance of adult education in improving competitiveness, employability, and democratic participation.

Keywords: adult literacy measurement; PIAAC; knowledge capital; economic development

Introduction

At the end of 2024, the report of the 2023 PIAAC survey was published, whose telling title draws attention to the significance of the research. (OECD 2024a) Several analyses have pointed out that the results of adult literacy tests are related to economic development and its various aspects. One early work Coulombe et al. (2004), and several other studies are also noteworthy, in addition to the aforementioned OECD report, OECD (2024b), Hanushek et al. (2015), Gustafsson (2016), and Schwerdt et al. (2020). Hanushek and Woessmann (2008; 2020) argue that the cognitive skills of the population – referred to as a nation's "knowledge capital" – are a more relevant indicator of a country's economic development potential than human capital.

In this paper, after reviewing the measurement of adult literacy, we examine how its results relate to economic growth, what knowledge capital means, how it differs from human capital, and we also discuss domestic data and characteristics. In the study, the term cognitive skills refers to individual competencies measured by literacy and numeracy assessments. The expression cognitive skill base is used to denote the aggregate distribution of these skills at the societal or national level. Following the OECD-related literature, the term knowledge capital refers to the economically relevant stock of such competencies embodied in the adult population.

Although the literature on knowledge capital primarily focuses on long-term economic growth rates, the present analysis examines cross-sectional associations between adult literacy performance and the level of GDP per capita. Consequently, the empirical results refer to differences in economic development levels rather than to dynamic growth processes over time. The findings should therefore be interpreted within a development-level framework rather than as direct evidence on growth rates.

This paper contributes to the literature in three ways. First, it compares the relationship between adult literacy performance and economic development across three major international adult skill assessment waves (IALS, PIAAC first cycle, and PIAAC 2023), thereby examining the stability of the association over time.

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Second, the study places Hungary's adult literacy performance into a long-term comparative international perspective, with particular attention to the distribution of low-performing adults. Third, unlike strongly causal interpretations in parts of the knowledge capital literature, the paper adopts a descriptively oriented and methodologically cautious approach, focusing on stable macro-level associations rather than causal claims.

Measuring Adult Literacy

The Programme for the International Assessment of Adult Competencies (PIAAC) is a programme of assessment and analysis of adult skills (survey of adults aged 16-65 years). The Survey measures adults' proficiency in key information-processing skills - literacy, numeracy and problem solving – which represent skills needed for individuals to participate in society and for economies to prosper². As Martin (2018) writes, the PIAAC survey built on the experience gained from two previous surveys of adult skills in OECD countries. „The first such survey – the International Adult Literacy Survey (IALS)—was developed as a collaborative effort between OECD, Statistics Canada and the US-based Educational Testing Service. IALS assessed three skill domains: prose literacy, document literacy and quantitative literacy. It was accompanied by a background questionnaire designed to elicit information about respondents' socio-demographic, education, training and labour market histories. In total, 22 OECD countries took part in IALS over the period 1994 to 1998” (Martin, 2018, p. 6). Hungary was among the 22 countries. The IALS survey was followed by the ALL (Adult Literacy and Lifeskills) survey, which also assessed skills in the areas of prose and document comprehension, but the area of quantitative literacy was replaced by numeracy, and a new area of problem solving was added to the survey, in which only 9 OECD countries participated between 2002 and 2007 (including Hungary). PIAAC was also established at the initiative of the OECD – but with the participation of the European Commission (Martin, 2018). The first cycle of the survey started in 2008 – in this case, Hungary only joined the third data collection wave in 2015. Preparations for the second cycle of the survey began in 2019 with the participation of 33 countries and continued until the end of 2022 (KSH, n.d.). The survey was divided into two cycles: “The first cycle of PIAAC measured four groups of basic cognitive skills frequently used in everyday life: reading comprehension, basic reading skills, numeracy and problem-solving skills in an information technology environment. In the second cycle, in addition to measuring reading comprehension, reading and numeracy skills, adaptive problem-solving skills were examined” (KSH, n.d. para. 2-3).

What is PIAAC for?

The IES-NCES [Institute of Education Science - National Center for Education Statistics] defines the purpose of PIAAC as follows: "PIAAC is designed to measure adult skills across a wide range of abilities, from basic reading and numerical calculations to complex problem solving. To achieve this, PIAAC assesses literacy, numeracy, and problem solving. The tasks developed for each domain are authentic, culturally appropriate³, and drawn from real-life situations expected to be important or relevant in different contexts. The content and questions within these tasks reflect the purposes of adults' daily lives across different cultures, as well as the changing nature of complex, digital environments," (NCES, n.d., para. 1) According to the OECD (n.d.), the purpose of the Programme for the International Assessment of Adult Competencies (PIAAC) is " to allow cross-cultural and international comparisons of results of skill-formation systems and their outcomes, and international benchmarking regarding adult skills; and, to allow policy makers to monitor the development of key aspects of human capital in their countries."

OECD (2019) compares the Adult Skills Assessment⁴ and the measurement of human capital. The paper concludes that although human capital is a reasonable and comprehensive measure of educational attainment, it has some well-documented limitations:

- Educational attainment only certifies knowledge and skills acquired during education. It is an important feature of an individual's skills, especially for young adults.
- Skills attested by educational attainment change over time, can be lost, maintained and developed.
- The quality of education and training offered at different levels of education and training systems can vary significantly across and within countries over time. Thus, the level of knowledge and skills attested by qualifications of the same type and level can vary greatly.

² <https://www.oecd.org/en/about/programmes/piaac.html>

³ In this formulation of the NCES description, it refers to adaptation across different linguistic and national contexts.

⁴ Survey of Adult Skills (PIAAC) 2013, 2016 and 2019 measurements

The paper compares the output of adult skills assessments (knowledge capital) and the measurement relevance of educational outcomes (human capital) based on four criteria. The four criteria are:

- Coverage: the extent to which the measure covers the different dimensions of human capital.
- Contextuality: the extent to which the measure covers the skills acquired in a given setting, such as an educational institution.
- Timeliness: the extent to which the measure is "current" as a measure of skills at the time the information is collected.
- Comparability: the extent to which the measure is comparable across countries and within countries over time.

The comparison is summarized in table form in Table 1.

Table 1. Comparison of direct measures from the Survey of Adult Skills (PIAAC) and qualifications on four criteria

	Direct assessment (Survey of Adult Skills)	Qualifications
Coverage (content)	Limited (only 3 cognitive skills tested)	Broad
Context dependence	Low	High
Currency	High	Variable (depends on the time elapsed since the respondent's highest qualification was completed)
Comparability	High	Variable both between and within countries

Source: OECD (2019, Table 8.4, p. 107)

Ultimately, the paper emphasizes—based on previous OECD analyses—that direct skill assessments and educational attainment measure partly overlapping but not identical dimensions of human capital. Direct measurement of skills should therefore be regarded as complementing rather than substituting for educational attainment indicators. At the same time, Hanushek and Woessmann (2020) argue that the cognitive skills of the population—referred to as a nation's "knowledge capital"—are a more relevant indicator of a country's economic development potential than human capital.

In this paper, knowledge capital is used in the sense developed by Eric Hanushek and Ludger Woessmann, referring to the aggregate stock of cognitive skills of the adult population as measured by standardized competence assessments (e.g. PISA, PIAAC). In this interpretation, knowledge capital is not identical with years of schooling or formal qualifications; rather, it captures the quality-adjusted cognitive skill base of the labour force.

However, it is important to note that PIAAC measures only selected domains of cognitive proficiency (literacy, numeracy and adaptive problem solving). Therefore, in empirical terms, this study treats national mean literacy performance as a proxy indicator of knowledge capital, not as its exhaustive measure. Knowledge capital, in a broader theoretical sense, may also include non-cognitive skills, domain-specific expertise, and innovation-related capabilities, which are not captured by PIAAC.

Accordingly, throughout this paper, the term knowledge capital refers to the measurable cognitive skill component of human capital as reflected in international adult skill assessments.

Lessons from international studies and debates on knowledge capital

The best-known theorists on the relationship between cognitive abilities measured in competency assessments and economic development are Erik Hanushek and Ludger Woessmann. The findings of the authors' three widely known publications (Hanushek and Woessmann 2008; 2015; and OECD, 2015) have been adopted by the OECD and the World Bank. The authors assume that high performance in PISA predicts a high level of knowledge capital. In their work, the authors demonstrate that PISA scores – which approximate the cognitive level of a given national workforce – determine economic growth. They do not simply claim that cognitive level is one factor in achieving higher economic growth (as mainstream human capital theorists claim, for example, Mankiw, 2007), but they demonstrate that PISA and PIAAC results determine economic growth and are causally related to it. This allows Hanushek and Woessmann to predict the future economic growth of countries, which would be achieved by gradually increasing students' test scores (Rappleye & Komatsu, 2019).

Hanushek and Woessmann (2020) provide a detailed analysis of the relationship between knowledge capital and economic development, while also highlighting the role of education policy. Their argument is that the traditional relationship between educational attainment and economic development may partly reflect reverse causality, since economically more developed societies tend to consume more education. In contrast,

they argue that there is “less reason to think that higher student achievement is caused by economic growth” (Hanushek & Woessmann, 2020, p. 176). They also emphasize that while educational attainment indicators mask qualitative differences across levels and fields of education, competency assessments make such differences measurable. In his article, Gustafsson (2016) draws the essentially logical conclusion based on a comparison of PISA and PIAAC results that the quality of school education (i.e. the competence results of students) has a lasting impact on the literacy and numeracy performance of adults.

Schwerdt et al. (2020) also point to the economic consequences of lagging behind in adult literacy, who, analyzing the results of the IALS study, write that in the long run, a 1% increase in literacy results in a 3% increase in GDP per capita. They emphasize that the relationship between labor productivity and literacy is equally strong. They also emphasize that, catching up adults who are lagging behind in literacy promises greater results than developing higher performers.

It is also worth citing another paper by Hanushek and Woessmann, in which they write that the results show that education policy is closely related to long-term economic growth. The eloquent title of their joint paper from 2012 also emphasizes this: “Do better schools lead to more growth? Cognitive skills, economic outcomes, and causation”. (Hanushek & Woessmann, 2012)

However, there have been serious counterarguments to the theory of the relationship between adult competences and economic development. As Williams (2021) writes, many researchers question the validity of Erik Hanushek and Ludger Woessmann’s and the OECD’s claims that there is a causal relationship between cognitive development and economic growth. Based on his calculations and analysis, he concludes that the Hanushek-Woessmann theory of knowledge capital is “degenerate”.

Rappleye and Komatsu (2019) conclude from their analysis that there is no strong relationship between average PIAAC scores and growth in GDP per capita. Finally, they argue that the knowledge capital theory shows signs of theoretical degeneration.

Nevertheless, despite the controversies, the Hanushek-Woessmann approach is relevant in more recent publications by both the OECD and the World Bank. (See Égert et al., 2022, or the World Bank’s Human Capital Index, of which PISA results are an important element, Kray, 2019).

The debate may be summarised along three key dimensions:

Strength of association – While Eric Hanushek and Ludger Woessmann argue that cognitive skills strongly predict long-term growth, critics such as John Rappleye question the empirical robustness of this relationship.

Causality – Proponents claim that skill improvements drive growth, whereas critics highlight endogeneity and model specification problems.

Policy implications – The knowledge capital approach supports strong education reform agendas, while critics warn against over-reliance on test-based indicators.

The present study does not attempt to adjudicate this theoretical dispute. Instead, it examines whether the macro-level association appears stable across three adult skill survey waves, while refraining from strong causal inference.

Methods

Data sources

- The empirical analysis relies on three large-scale international adult skills assessments organised by the Organisation for Economic Co-operation and Development:
 - International Adult Literacy Survey (IALS, 1994–1998),
 - Programme for the International Assessment of Adult Competencies (PIAAC, first wave 2012–2017),
 - PIAAC second cycle (2023).
- Country-level mean literacy scores were obtained from OECD publications (OECD 2024a, Annex A).
- Economic development is measured using GDP per capita (constant 2015 US dollars) from the World Bank World Development Indicators database.

Sample and comparability

To enhance cross-wave comparability, the analysis focuses on the subset of countries participating in all relevant survey waves where data are available. Due to differences in participation across cycles (e.g. Belgium referring to Flanders only, UK referring to England only), strict longitudinal comparability is limited. These territorial differences should be taken into account when interpreting the results.

Given the relatively small number of countries ($N \approx 17$ –18 depending on wave), the statistical power of the correlation estimates is limited, and the findings are interpreted primarily as descriptive macro-level associations.

Variables

- Literacy performance: national mean literacy score.
- Low-performance share: percentage of adults scoring at level 2 or below.
- Economic development: GDP per capita (constant 2015 USD).

GDP values are aligned as closely as possible to the assessment year of each survey wave. Minor discrepancies in timing do not materially affect the descriptive patterns.

It should be noted that GDP per capita is used as an indicator of the level of economic development, not as a measure of economic growth rates. The analysis therefore captures cross-country differences in economic performance at given points in time, rather than changes in growth trajectories.

Analytical strategy

The study applies:

- descriptive cross-country comparisons,
- ranking analysis,
- bivariate Pearson correlation coefficients,
- graphical inspection with linear trend lines.

Since the objective of the analysis is exploratory rather than causal, no multivariate regression models are estimated. The analysis instead focuses on the strength and stability of macro-level associations across time. It is important to stress that macro-level correlations between literacy performance and GDP per capita do not in themselves establish causal direction. Reverse causality (economic development improving educational quality), omitted institutional variables, or common structural determinants (e.g. governance quality, innovation systems, sectoral composition) may influence both variables simultaneously.

Moreover, given the relatively small number of observations, the correlation coefficients are sensitive to outliers (for example, Ireland or Switzerland in the 2023 data). The findings are therefore interpreted as descriptive macro-level associations rather than evidence of causal relationships. As the analysis relies on cross-sectional correlations, strong causal claims should be treated with methodological caution.

Analysis

Cross-country performance

Tables 2–3 summarize literacy performance and the share of low-performing adults. Nordic countries consistently lead, while Hungary and other Central/Eastern European countries remain below the OECD average. The distributional dimension, especially the proportion of low performers, is crucial for understanding functional literacy challenges.

Table 2. Results of competency assessments related to adult literacy

	IALS (1994-7)	GDP per capita		PIAAC (2012)	GDP per capita		PIAAC (2023)	GDP per capita
Sweden	305,5	33862,0	Finland	287,5	43507,9	Finland	302,7	45588,5
Norway	294,5	65197,9	Netherlands	284,0	44631,9	Sweden	284,1	54449,8
Denmark	289,0	46437,2	New Zealand	280,7	38639,4	Norway	282,8	78912,3
Finland	287,5	34457,5	Sweden	279,2	48788,9	Netherlands	282,3	51305,6
Netherlands	285,8	33054,4	Norway	278,4	73661,7	Denmark	279,6	61296,0
Germany	282,2	31609,1	Belgium	275,5	40074,5	Belgium	278,5	44731,0
Canada	278,9	32074,2	Czech Rep.	274,0	16772,4	Canada	273,0	44468,7
Belgium	277,1	31862,7	Canada	273,5	42320,6	UK	272,1	47322,7
Czech Rep	276,8	11850,8	UK	272,6	42802,0	Switzerland	270,9	89555,6
USA	273,5	41107,0	USA	270,9	58703,1	Germany	269,7	44336,8
Switzerland	271,8	67391,8	Denmark	270,8	51470,7	Czech Rep	265,2	20245,7
New Zealand	266,7	28571,4	Germany	269,8	40829,0	Ireland	263,3	91647,8
UK	266,4	33777,5	Poland	266,9	11542,2	New Zealand	259,6	41766,9
Ireland	264,2	26290,9	Ireland	266,5	47217,4	USA	259,3	65875,2
Hungary	246,9	8282,4	Hungary	264,0	13628,4	Hungary	249,4	16282,8
Italy	243,5	30892,2	Italy	250,5	31292,1	Italy	245,7	34088,1
Poland	232,2	5262,3	Chile	220,1	13433,9	Poland	235,7	17391,1
Chile	222,7	8287,5				Chile	217,9	14226,5
Average	270,3	31681,6	Average	269,7	38783,3	Average	266,2	47971,7

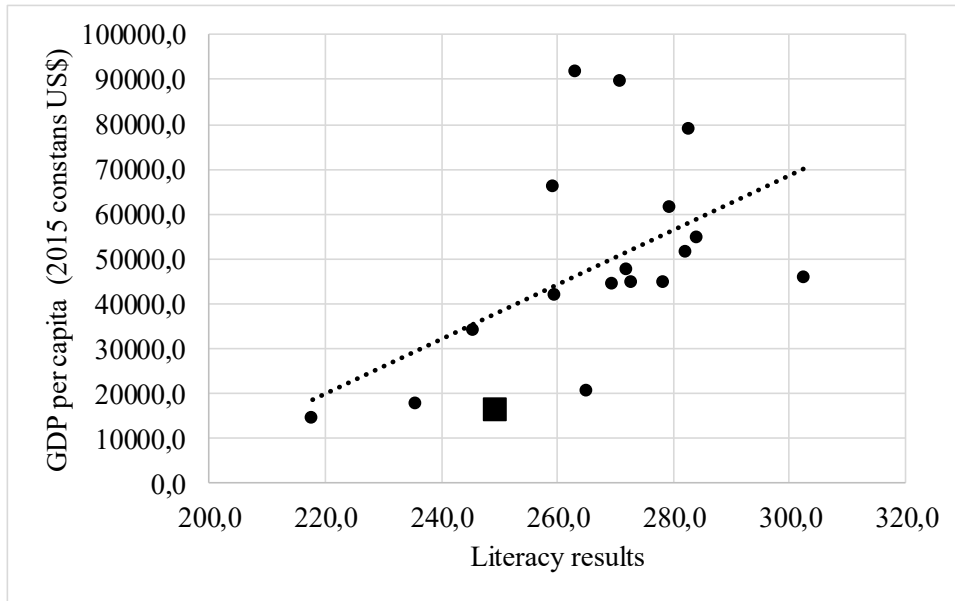
Source: OECD (2024a) Annex A, p.194. Table A.3.23 (L)

Note: UK = England only, Belgium = Flemish region only

Literacy and economic development

Figures 1–3 illustrate correlations between literacy scores and GDP per capita. Positive associations are observed across all survey waves. Deviations from the overall trend may be associated with structural or institutional factors beyond measured competencies, although measurement issues and differences in data collection or processing may also contribute to these patterns.

Appendix 1 and 2 report the correlations between competency assessments and GDP per capita. The estimated correlations are positive and statistically significant at the 5% level. Some contributions in the literature, including Hanushek and Woessmann, interpret these relationships in causal terms.

Figure 1. Relationship between PIAAC literacy scores and GDP per capita in 2023

Source: World Bank: <https://data.worldbank.org/indicator/NY.GDP.PCAP.CD> (The black square is Hungary)

Note: GDP per capita (constant 2015 US\$)

If we take a closer look at the reasons for Hungary's ranking, it is clear (Table 3) that in both the IALS and PIAAC 2023 surveys, Hungary was among the countries where two-thirds of the adults surveyed achieved only level 2 or lower in reading comprehension, meaning that they are among those who struggle with comprehension difficulties.

Table 3. Percentage of adults with literacy proficiency at level 2 or below

	IALS 94-97		PIAAC 2012		PIAAC 2023
Sweden	23,6	Finland	37,1	Finland	26,7
Norway	28,3	Netherlands	39,0	Sweden	37,0
Denmark	33,8	Sweden	42,3	Norway	38,4
Netherlands	35,8	New Zealand	42,8	Netherlands	39,5
Finland	35,8	Norway	43,4	Denmark	41,8
Canada	40,2	Belgium	46,0	Belgium	42,6
Belgium	42,5	Canada	48,5	Canada	47,8
Germany	43,0	Czech Rep.	49,6	Switzerland	48,4
Czech Rep.	46,2	Denmark	49,9	Germany	48,7
USA	46,3	UK	50,2	UK	48,9
Switzerland	47,0	USA	51,8	USA	55,7
UK	51,5	Germany	52,2	New Zealand	56,2
Ireland	54,3	Ireland	55,3	Czech Rep.	56,6
New Zealand	54,7	Poland	55,3	Ireland	58,7
Italy	68,3	Hungary	57,6	Hungary	67,9
Hungary	72,4	Italy	70,1	Italy	70,1
Poland	76,0	Chile	85,4	Poland	79,1
Chile	86,4			Chile	83,9

Source: OECD (2024a) Annex A, p. 195, Table A.3.25 (L)

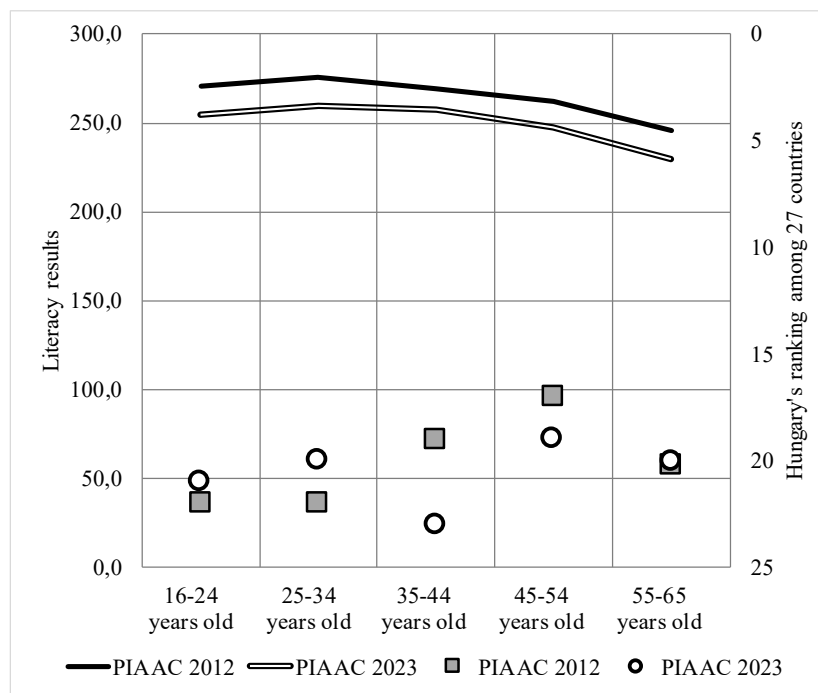
If we examine the results of the last two PIAAC measurements of Hungarian literacy and numeracy by age group, two things become clear. One is that the age-related trends for the two competencies differ somewhat: literacy scores peak in the 25-34 age group and then decline, while numeracy peaks at age 35-44 and then

declines. The other, truly striking difference is that the results in 2023 are 5-6% weaker than they were in 2012 (Figures 2 and 3).

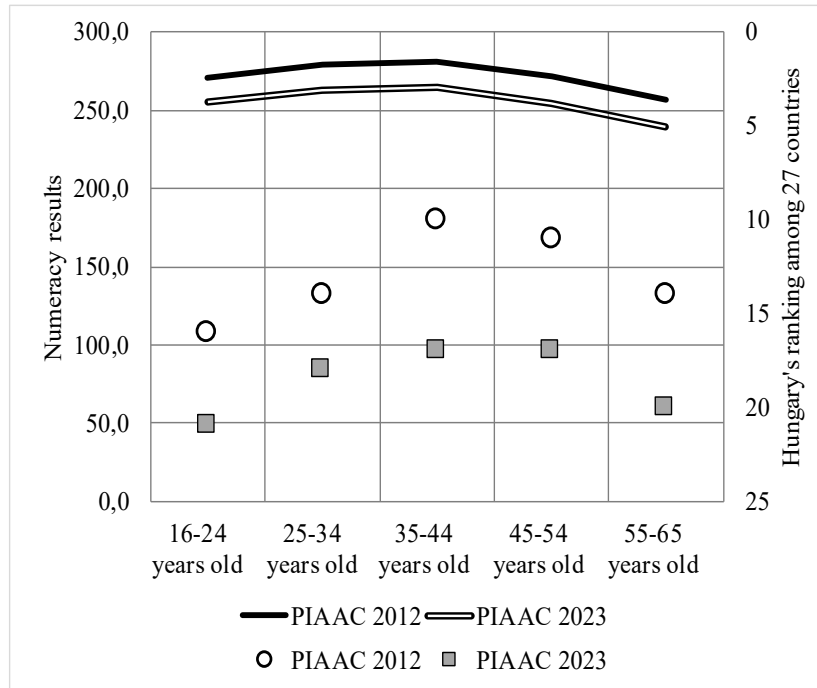
Looking at Hungary's PISA results, we can probably expect a further decline in adults' reading and writing skills (if we believe the Gustafsson 2016 research cited earlier), as Hungary's PISA results have been declining since 2009 (see Appendix 3), and the quality of our education is also deteriorating (see Polónyi, 2023).

Hungary's relatively weak literacy outcomes may be associated with a range of structural and institutional characteristics discussed in the literature, including early tracking within the school system, regional inequalities, limited participation in adult learning, and comparatively low levels of employer-supported training. Demographic change and selective migration may also affect the aggregate distribution of skills. However, the present analysis does not allow the relative importance of these factors to be identified. The decline observed between 2012 and 2023 suggests that generational replacement contributes to improving adult literacy outcomes only if younger cohorts enter adulthood with stronger literacy skills than preceding generations. Recent PISA trends in Hungary, however, do not indicate such improvement.

Figure 2. Literacy results for major age groups in Hungary and rankings among the 27 participating countries



Source: Author's compilation based on OECD (2024a) Annex A, p 195, Table A.3.7(L)

Figure 3. Numeracy results and rankings of Hungarian age groups among the 27 participating countries

Source: Author's compilation based on OECD (2024a) Annex A, p. 195, Table A.3.7(N)

Discussion

While correlations are clear, the analysis does not establish causation. Omitted variables (institutional quality, sectoral composition, innovation intensity) may influence both literacy and economic outcomes. Nevertheless, the persistence of the relationship across time suggests that knowledge capital may represent an important dimension of economic potential.

Although the present analysis does not evaluate policy effectiveness directly, the observed literacy trends may indicate a potential role for adult education and lifelong learning policies in mitigating skill deterioration. This may be particularly relevant in Hungary, where the data suggest persistent weaknesses across cohorts. Previous studies and policy reports have emphasized that lifelong learning can contribute to employability, economic competitiveness, and social inclusion (EAEA, 2018; Ebner & Várkonyi, 2024).

Limitations

Several limitations of the present analysis should be acknowledged.

First, the empirical investigation relies on cross-sectional country-level data with a relatively small number of observations ($N \approx 17-18$ depending on survey wave). While correlation coefficients indicate a positive macro-level association between literacy performance and GDP per capita, the limited sample size constrains statistical power and the robustness of inference.

Second, the analysis does not employ multivariate regression techniques or identification strategies. No controls are introduced for potentially confounding structural factors such as institutional quality, innovation capacity, capital intensity, demographic structure, or labor market characteristics. Consequently, omitted variable bias cannot be ruled out.

Third, comparability across survey waves is imperfect. Although the International Adult Literacy Survey (IALS) and the Programme for the International Assessment of Adult Competencies (PIAAC) are designed to ensure measurement continuity, changes in test frameworks, scaling procedures, and sampling strategies may introduce measurement inconsistencies over time.

Fourth, territorial differences limit strict longitudinal comparability. In some cases, survey results refer only to subnational entities (e.g. Belgium representing Flanders, the United Kingdom representing England), whereas GDP per capita data are reported at the national level. This mismatch may slightly distort cross-country comparisons.

Fifth, the use of GDP per capita as the sole indicator of economic development abstracts from broader dimensions of economic performance, such as productivity structure, income distribution, and innovation

dynamics. Economic output may reflect sectoral composition or capital inflows rather than skill endowments alone.

Finally, the ecological nature of the analysis implies a risk of aggregation bias. Associations observed at the macro level do not necessarily translate into individual-level causal relationships between skills and earnings or productivity.

Taken together, these limitations imply that the results should be interpreted as descriptive evidence of stable macro-level associations rather than proof of causal effects of knowledge capital on economic growth.

Conclusion

This paper demonstrates a consistent macro-level association between adult literacy performance and economic development. Hungary's lag in both mean scores and distributional outcomes highlights structural challenges with policy relevance. While causal inference is not possible, international evidence supports the importance of knowledge capital and adult education in promoting long-term economic growth and societal inclusion.

While adult education is frequently presented as a direct lever for improving economic performance, the results of this study suggest a more nuanced interpretation. Enhancing adult literacy may contribute to employability, productivity, and social cohesion; however, its macroeconomic impact is likely mediated by institutional quality, labour market structures, and innovation capacity. Thus, knowledge capital should be understood as one important, but not exclusive, component of long-term economic development.

The analysis contributes to the literature by showing that the positive association between adult literacy and economic development remains observable across multiple survey waves, while also demonstrating the importance of distributional aspects of literacy performance in the Hungarian case.

Acknowledgments: This study serves as a tribute to Professor Gabriella Pusztai on the occasion of her 60th birthday.

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Appendix

Appendix 1. Data used to calculate the correlation between adult literacy scores and GDP per capita

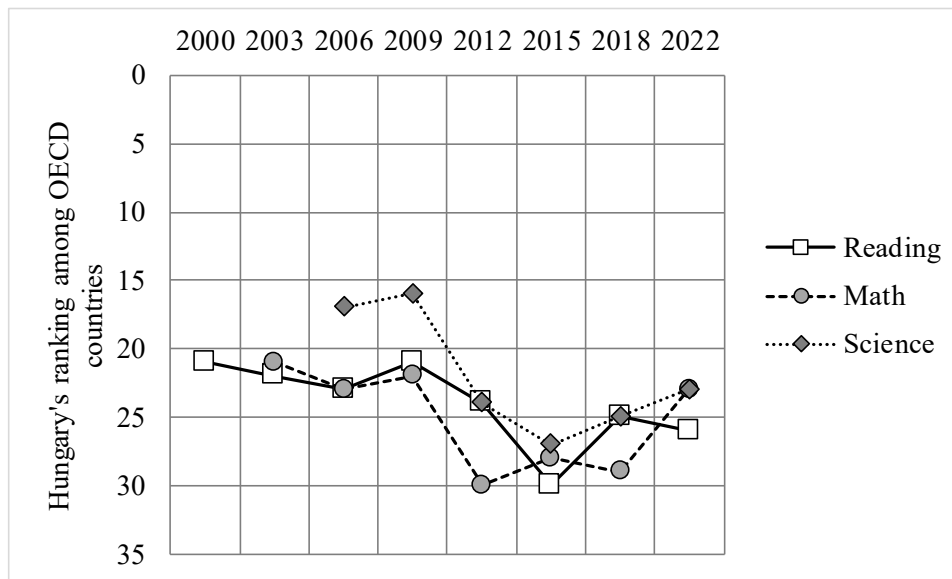
	Year	IALS Mean 1994-98	GDP per capita	Year	PIAAC Mean 2012-17	GDP per capita	Year	PIACC Mean 2023	GDP per capita
Belgium (Fl)	1996	277,1	31862,7	2012	275,5	40074,5	2023	278,5	44731,0
Canada	1994	278,9	32074,2	2012	273,5	42320,6	2023	273,0	44468,7
Chile	1998	222,7	8287,5	2015	220,1	13433,9	2023	217,9	14226,5
Czech Rep.	1998	276,8	11850,8	2012	274,0	16772,4	2023	265,2	20245,7
Denmark	1998	289,0	46437,2	2012	270,8	51470,7	2023	279,6	61296,0
Finland	1998	287,5	34457,5	2012	287,5	43507,9	2023	302,7	45588,5
Germany	1994	282,2	31609,1	2012	269,8	40829,0	2023	269,7	44336,8
Hungary	1998	246,9	8282,4	2017	264,0	13628,4	2023	249,4	16282,8
Ireland	1994	264,2	26290,9	2012	266,5	47217,4	2023	263,3	91647,8
Italy	1998	243,5	30892,2	2012	250,5	31292,1	2023	245,7	34088,1
Netherlands	1994	285,8	33054,4	2012	284,0	44631,9	2023	282,3	51305,6
New Zealand	1996	266,7	28571,4	2015	280,7	38639,4	2023	259,6	41766,9
Norway	1998	294,5	65197,9	2012	278,4	73661,7	2023	282,8	78912,3
Poland	1994	232,2	5262,3	2012	266,9	11542,2	2023	235,7	17391,1
Sweden	1994	305,5	33862,0	2012	279,2	48788,9	2023	284,1	54449,8
Switzerland	1994	271,8	67391,8				2023	270,9	89555,6
UK (England)	1996	266,4	33777,5	2012	272,6	42802,0	2023	272,1	47322,7
USA	1994	273,5	41107	2017	270,9	58703,1	2023	259,3	65875,2

Source: Literacy results OECD (2024a) Annex A, p. 195, Table A.3.23 (L), GDP/capita: (constant 2015 US\$) World Bank <https://data.worldbank.org/indicator/NY.GDP.PCAP.CD>

Appendix 2. Correlation analysis ($p < 0.05$)

	IALS 1994-98	GDP/cap (1994-98)	PIAAC 2012-17	GDP/cap (2012-17)	PIACC 2023	GDP/cap (2023)
IALS 1994-98	1					
GDP/fő	0,6191	1				
PIAAC 2012-17	0,7768	0,4614	1			
GDP/fő	0,7480	0,9579	0,5135	1		
PIACC 2023	0,9167	0,5967	0,8419	0,6783	1	
GDP/fő	0,5459	0,8240	0,4196	0,8932	0,5184	1

Source: author's own calculations based on data from Appendix 1

Appendix 3. Hungary's ranking among OECD countries in terms of PISA results

Source: Compiled by the author based on OECD PISA database



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Thematic Article

Happiness, trust, and social relationships: The social dimensions of urban quality of life in Debrecen

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Abstract

The study of happiness and quality of life in urban settings has become increasingly prominent in both international and domestic social science research. The quality of social relationships and the level of trust are among the key determinants of subjective well-being. This study aims to explore the relationships between happiness, trust, and social ties among the urban population of Debrecen, and to examine how these vary across different demographic groups. The analysis is based on a representative sample of 500 respondents from the “Debrecen 2025” survey, using questionnaire-based data collection. The findings indicate that the subjective well-being of Debrecen’s residents is generally favourable and closely associated with the quality of their social relationships. In particular, family and friendship ties, as well as levels of trust, show consistent associations with life satisfaction. At the same time, it is not the quantity of social ties, but their quality, that proves to be decisive. No significant gender differences were found, whereas notable variations emerge across age groups and levels of educational attainment: older individuals and those with higher levels of education tend to report higher levels of well-being and trust. The results confirm the importance of social capital in shaping urban quality of life and suggest that strengthening social relationships and fostering trust may play a key role in improving overall well-being.

Keywords: happiness; trust; social relationships; quality of life; urban context; Debrecen; social capital

Introduction

Research on happiness and quality of life has become a central theme in the social sciences over recent decades. The study of subjective well-being is particularly important in urban environments, where the majority of people live and where social relationships, trust, and community cohesion exhibit distinctive patterns. One defining characteristic of the urban context is that social relationships are often looser and less stable, while social coexistence relies more heavily on trust and the predictability of everyday interactions. This makes the examination of these factors particularly relevant for understanding urban quality of life.

Debrecen, Hungary’s second-largest city and the centre of the Northern Great Plain region, provides an excellent setting for examining the factors that contribute to happiness and life satisfaction among the urban population.

In the literature, urban quality of life is conceptualised as a complex, multidimensional construct which, in addition to economic, infrastructural, and environmental factors, increasingly incorporates dimensions of subjective well-being and social relationships (Ballas & Tranmer, 2012). Contemporary approaches emphasise that urban quality of life is not merely a function of material and physical conditions, but is closely linked to social capital, trust, and the quality of community relations. Within this framework, the present study focuses on the social dimensions of urban quality of life.

The international literature consistently highlights that the quality of social relationships, social capital, and levels of trust are key determinants of subjective well-being (Helliwell & Putnam, 2004; Diener & Seligman, 2002; Putnam, 2000). The happiness of individuals living in urban environments is a complex

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phenomenon shaped by multiple factors, including the strength of family and friendship ties, relationships with neighbours, levels of institutional trust, and the extent of community participation (Oishi & Schimmack, 2010; Helliwell et al., 2018; Ballas & Tranmer, 2012).

Trust plays a particularly important role in this system of relationships, as it forms a bridge between individual experiences and the broader social environment. It reflects both the quality of interpersonal relationships and trust in the functioning of institutions, thereby fundamentally shaping individuals' sense of security and the predictability of everyday life.

Research on happiness is relevant not only from a scientific perspective but also from a public policy perspective. International initiatives such as the OECD Better Life Index and the UN World Happiness Report emphasise that subjective well-being is a key indicator of social progress. Urban planning, community programmes, and efforts to strengthen social cohesion are all areas where these findings have important practical implications.

The aim of this study is to explore the relationships between happiness, trust, and social relationships among the urban population of Debrecen. The analysis is based on a representative sample of 500 respondents from the "Debrecen 2025" survey.

In line with the research objectives, the following hypotheses were formulated:

- H1: The quality of social relationships is positively associated with subjective well-being.
- H2: The level of trust is positively associated with happiness and life satisfaction.
- H3: The quality of social relationships shows a stronger association with subjective well-being than the quantity of social ties.
- H4: No significant differences are expected between men and women in terms of happiness and social relationships.
- H5: A non-linear relationship exists between age and subjective well-being.
- H6: Higher educational attainment is associated with higher levels of well-being, stronger social relationships, and greater trust.

Theoretical Background

Concepts of Happiness and Subjective Well-Being

Research on happiness and subjective well-being has developed continuously since the 1960s. Since Diener's (1984) seminal work, subjective well-being has typically been conceptualised as comprising two main components: affective (emotional) and cognitive (evaluative) dimensions. The affective component refers to the frequency and intensity of positive and negative emotions, whereas the cognitive component reflects overall life satisfaction.

Hedonic and eudaimonic approaches emphasise different aspects of well-being. The hedonic perspective focuses on subjective happiness and pleasure (Kahneman et al., 1999), whereas the eudaimonic approach highlights self-realisation, personal growth, and a meaningful life (Ryan & Deci, 2001; Ryff & Keyes, 1995). Both perspectives are essential for a comprehensive understanding of well-being, particularly in the context of urban quality of life, where both subjective experiences and the sense of meaning are key factors.

Social Relationships and Happiness

Social relationships play a central role in human happiness. Diener and Seligman (2002) showed that very happy individuals almost without exception have strong social ties. Family relationships, friendships, and romantic partnerships all contribute to subjective well-being (Helliwell & Putnam, 2004).

Social relationships influence happiness through multiple mechanisms. On the one hand, they provide emotional support in stressful situations (Cohen & Wills, 1985); on the other, they contribute to identity formation and provide meaning in life (Baumeister & Leary, 1995). Social integration and a sense of belonging are fundamental human needs (Berkman et al., 2000).

In urban environments, social relationships exhibit distinctive patterns. Individuals living in large cities often have broader but weaker social networks than those in smaller settlements (Fischer, 1982). The quality of neighbourly relations is particularly important for urban quality of life (Helliwell et al., 2018).

These findings suggest that social relationships are not only crucial for individual well-being but also constitute a fundamental component of urban social functioning.

Trust and Social Capital

Trust is a central element of social capital and a key factor in the functioning of modern societies. Putnam (2000) distinguishes between bonding and bridging social capital: the former refers to ties within homogeneous groups (e.g. family and close friends), whereas the latter refers to connections between different social groups. Both forms contribute to well-being, but bridging social capital is particularly important for social cohesion and the functioning of democratic institutions.

The literature also distinguishes between different types of trust. Interpersonal trust refers to trust in known individuals (family members, friends, neighbours), whereas generalised trust refers to trust in strangers and in society more broadly. Institutional trust refers to trust in institutions such as government, the legal system, and public services (Uslaner, 2002; Rothstein & Stolle, 2008). Research has shown that all three types of trust are positively associated with subjective well-being, although their relative importance varies across social and cultural contexts.

Trust reduces uncertainty in social interactions, enhances predictability, and contributes to social stability (Fukuyama, 1995). In urban environments, where individuals frequently interact with strangers, generalised trust is particularly important. High levels of trust facilitate cooperation, reduce social conflict, and contribute to the overall quality of community life (Putnam, 2000).

Demographic Factors and Happiness

The impact of demographic factors on subjective well-being is complex and operates across multiple dimensions. In the following, we examine the roles of gender, age, and educational attainment.

Gender and happiness

Gender differences in happiness are complex and often inconsistent. Some studies suggest that women report higher levels of subjective well-being on average (Stevenson & Wolfers, 2009), while others find no significant differences (Dolan et al., 2008). Women often exhibit stronger social embeddedness, which may positively influence their well-being (Umberson et al., 1996). At the same time, they may display greater emotional variability, which can affect the measurement of subjective well-being. Gender differences are also context-dependent, with smaller differences observed in more egalitarian societies.

Age and happiness

The relationship between age and happiness often follows a U-shaped pattern: well-being is relatively high in young adulthood, declines in midlife, and increases again in older age (Blanchflower & Oswald, 2008; Stone et al., 2010). However, this pattern is not universal and is influenced by cultural factors. Explanations for the midlife decline include work-related and family stress, career uncertainty, and adjustment to ageing. The increase in well-being in later life may be linked to improved emotional regulation, more realistic expectations, and stronger social relationships (Li & Fung, 2013; Poulin & Haase, 2015).

Educational attainment and happiness

Educational attainment is generally positively associated with happiness, although this relationship is partly indirect. Higher levels of education are linked to better labour market outcomes, higher income, and improved health (Cuñado & de Gracia, 2012). Education is also closely related to social capital: individuals with higher levels of education tend to have broader social networks and higher levels of trust (Huang et al., 2009). In addition, education fosters both cognitive and non-cognitive skills that support problem-solving and coping with stress. Gesthuizen et al. (2008) showed that the impact of education on social capital depends on the broader social context, particularly the characteristics of the welfare system.

Based on the review of theoretical and empirical research, it can be assumed that social relationships, trust, and demographic factors jointly shape the subjective well-being of urban populations. These considerations provide the foundation for the hypotheses formulated in the introduction.

Methodology

Sample and Data Collection

As part of the “Debrecen 2025” research project, a questionnaire survey was conducted in the city of Debrecen in spring 2025 with a sample of 500 respondents. The sample was designed to be representative in terms of gender and educational attainment, as well as across the city’s districts. The age distribution of the sample was weighted based on the 2022 census data of the Hungarian Central Statistical Office (KSH).

Data were collected through face-to-face interviews. Sampling was carried out using the random walk method, ensuring the random selection of households. Within households, respondents were selected using the Leslie Kish grid.

Variables and Measurement

Happiness and life satisfaction

Life satisfaction was measured using a single-item question on a 0–10 scale (“All things considered, how satisfied are you with your life nowadays?”). The happiness index was constructed from three components: life satisfaction, subjective happiness, and optimism.

Social relationships

The social relationships index was constructed from four dimensions: the quality of family relationships (0–10), the quality of friendships (0–10), the number of friends (winsorised at the 95th percentile), and the quality of neighbourly relationships (0–10).

Trust

The trust index was constructed based on four items measuring different dimensions of trust (Cronbach’s $\alpha = 0.785$): general interpersonal trust, institutional trust, trust in neighbours, and trust in strangers. Responses were measured on a 5-point Likert scale.

Data Cleaning and Index Construction

The number of friends was treated using a winsorisation procedure at the 95th percentile (30 individuals), meaning that extreme values were capped at this upper threshold in order to reduce their potential influence on the results.

The trust index was calculated as a weighted average of four items, meaning that each item contributed to the composite measure with a different weight. Missing data were handled using listwise deletion; that is, only complete cases were included in the analyses.

Statistical Analyses

Data analysis was performed using SPSS 27.0 statistical software. Descriptive statistics, Pearson correlation analysis, independent-samples t-tests, and analysis of variance (ANOVA) were used to describe the sample and examine relationships between variables. The level of statistical significance was set at $p < 0.05$.

4. Results

Descriptive statistics

The sample consisted of 500 respondents, of whom 51.2% were women and 48.8% were men. The mean age was 47.3 years ($SD = 17.2$). The distribution of educational attainment was as follows: primary education (18.4%), secondary education (52.6%), and tertiary education (29.0%) (see Table 1).

Table 1. Demographic characteristics of the sample (N=500)

Variable	Category	N (weighted %)	Mean (SD)
Gender	Male	244 (48.8%)	-
	Female	256 (51.2%)	-
Age	18–29 years	89 (17.8%)	47.3 (17.2)
	30–44 years	142 (28.4%)	
	45–59	134 (26.8%)	
	60+ years	135 (27.0%)	
Educational attainment	Primary	92 (18.4%)	-
	Secondary	263 (52.6%)	
	Higher education	145 (29.0%)	

Table 2 presents the descriptive statistics of the main indicators of happiness, social relationships, and trust. The average level of life satisfaction among Debrecen residents was relatively high ($M = 7.40$, $SD = 1.66$) on a 0–10 scale.

The mean value of the happiness index was 7.28 ($SD = 1.52$), indicating a generally positive overall assessment. In terms of distribution, 42% of respondents reported being very happy, 46% fairly happy, 10% not very happy, and only 2% very unhappy.

Table 2. Happiness, social relationships and trust – descriptive statistics (N=500)

Variable	Mean (M)	SD	Min	Max	Median
Happiness and quality of life					
Life satisfaction (0–10)	7.40	1.66	0	10	8.0
Happiness index (0–10)	7.28	1.52	1.67	10	7.5
Sense of happiness (0–10)	7.35	1.71	0	10	8.0
Optimism (0–10)	7.09	2.03	0	10	7.0
Social relationships					
Quality of family relationships (0–10)	8.12	2.01	0	10	9.0
Quality of friendships (0–10)	7.68	1.89	0	10	8.0
Number of friends (winsorised)	8.45	7.82	0	30	6.0
Neighbourly relations (0–10)	6.84	2.34	0	10	7.0
Social relationships index (0–10)	7.77	1.48	2.08	10	8.0
Trust					
General interpersonal trust (1–5)	2.89	1.08	1	5	3.0
Institutional trust (1–5)	2.76	1.02	1	5	3.0
Trust in neighbours (1–5)	3.24	1.15	1	5	3.0
Trust in strangers (1–5)	2.41	1.01	1	5	2.0
Trust index (1–5)	2.82	0.89	1	5	2.8

In terms of social relationships, the quality of family relationships shows the highest average values, followed by friendships, while neighbourly relations are rated somewhat lower. The number of friends displays considerable variation, indicating substantial differences in the size of individuals' social networks.

Trust indicators suggest a moderately low overall level of trust. Trust in neighbours is the highest among the different dimensions, whereas trust in strangers is the lowest. General interpersonal trust and institutional trust fall between these two extremes. The average value of the trust index is 2.82 on a 1–5 scale.

Relationships Between Subjective Well-Being, Social Relationships, and Trust

Table 3 presents the correlations between happiness, social relationships, and trust.

Table 3. Correlation matrix – happiness, social relationships and trust (N=500, weighted data)

	1	2	3	4	5	6	7	8
1. Life satisfaction	1							
2. Happiness index	0.916***	1						
3. Family relationships	0.290***	0.301***	1					
4. Friendships	0.283***	0.295***	0.412***	1				
5. Number of friends	0.198***	0.211***	0.156***	0.289***	1			
6. Neighbourly relations	0.215***	0.228***	0.298***	0.356***	0.187***	1		
7. Social relationships index	0.358***	0.374***	0.721***	0.768***	0.543***	0.674***	1	
8. Trust index	0.279***	0.291***	0.245***	0.268***	0.176***	0.312***	0.358***	1

Note: Pearson correlation coefficients, weighted data. *** $p < 0.001$

The results indicate that subjective well-being is closely related to both social relationships and trust.

Life satisfaction is significantly and positively associated with all examined dimensions of social relationships: family relationships ($r = 0.290$, $p < 0.001$), friendships ($r = 0.283$, $p < 0.001$), number of friends ($r = 0.198$, $p < 0.001$), and neighbourly relations ($r = 0.215$, $p < 0.001$). These findings suggest that multiple forms of social ties contribute to subjective well-being.

The composite social relationships index shows a moderate positive association with both life satisfaction and the happiness index, indicating that the overall quality of social relationships is closely linked to well-being.

Trust is also positively associated with both life satisfaction and happiness, and is moderately related to social relationships, suggesting that trust and social embeddedness are interconnected and mutually reinforcing.

Significant positive correlations are also observed among the different dimensions of social relationships. The quality of family and friendship ties is moderately strongly correlated ($r = 0.412$, $p < 0.001$), indicating that individuals with strong family relationships also tend to have strong friendships. Neighbourly relations are likewise positively associated with both family ($r = 0.298$, $p < 0.001$) and friendship ties ($r = 0.356$, $p < 0.001$).

A particularly important finding is that the quality of relationships shows a stronger association with subjective well-being than the number of relationships. This suggests that the qualitative and emotional aspects of social ties play a more important role in shaping well-being than the mere size of one's social network.

Summary Evaluation of the Hypotheses

H1 (Quality of social relationships → subjective well-being):

The results support the hypothesis. The quality of social relationships shows a consistent and significant positive association with subjective well-being across multiple indicators.

H2 (Trust → happiness and life satisfaction):

This hypothesis is also supported. The trust index is positively associated with both life satisfaction and the happiness index, indicating that trust is an important component of subjective well-being.

H3 (Quality > quantity):

The results support this hypothesis. The quality of social relationships shows a stronger association with subjective well-being than the number of social ties, highlighting the importance of relational quality over network size.

Overall, the findings suggest that subjective well-being is closely linked to individuals' social and trust-based embeddedness, providing a foundation for the subsequent analyses, particularly those focusing on demographic differences.

Gender differences

Table 4 summarises the gender differences observed in the dimensions of happiness, social relationships and trust.

Table 4. Gender differences in subjective well-being, social relationships and trust

Variable	Men (n=244)	Women (n=256)	t-value	p-value	Cohen's d
	M (SD)	M (SD)			
Happiness and quality of life					
Life satisfaction	7.38 (1.68)	7.42 (1.65)	-0.29	0.774	-0.02
Happiness index	7.25 (1.54)	7.31 (1.50)	-0.45	0.651	-0.04
Social relationships					
Family relationships	8.02 (2.08)	8.21 (1.95)	-1.05	0.295	-0.09
Friendships	7.54 (1.95)	7.81 (1.83)	-1.58	0.115	-0.14
Number of friends	8.92 (8.15)	8.02 (7.50)	1.28	0.202	0.11
Neighbourly relations	6.71 (2.41)	6.96 (2.28)	-1.18	0.239	-0.11
Social relationships index	7.80 (1.52)	7.75 (1.45)	0.38	0.707	0.03
Trust					
Trust index	2.79 (0.91)	2.85 (0.87)	-0.75	0.452	-0.07

Note (1): Weighted independent samples t-tests. None of the differences are statistically significant at $p < 0.05$.

Based on the results, no statistically significant differences between men and women can be identified for any of the indicators examined. Differences in subjective well-being are negligible, and a similar pattern is observed for social relationships and trust. Effect sizes are consistently small ($|d| < 0.20$), indicating that gender differences are marginal.

Hypothesis testing

H4 (No significant gender differences in subjective well-being, social relationships, and trust):

The hypothesis is supported. No statistically significant differences were found between men and women across any of the examined dimensions, and effect sizes indicate negligible differences. The results are consistent with findings in the international literature (Stevenson & Wolfers, 2009; Umberson et al., 1996), which indicate that in developed societies, gender differences in subjective well-being and social relationships are typically small or insignificant.

Age differences

Table 5 presents the differences between age groups in terms of happiness, social relationships and trust.

Table 5. Age differences in happiness, social relationships and trust

Variable	18–29 years	30–44 years	45–59 years	60+ years	F-value	p-value	η^2
	(n=89)	(n=142)	(n=134)	(n=135)			
	M (SD)	M (SD)	M (SD)	M (SD)			
Happiness and quality of life							
Life satisfaction	7.45 (1.58)	7.12 (1.72)	7.38 (1.68)	7.78 (1.52)	3.82	0.010*	0.023
Happiness index	7.38 (1.45)	7.02 (1.58)	7.29 (1.52)	7.56 (1.45)	3.15	0.025*	0.019
Social relationships							
Family relationships	8.24 (1.89)	7.89 (2.15)	8.15 (1.98)	8.35 (1.92)	1.42	0.236	0.009
Friendships	7.92 (1.75)	7.45 (1.98)	7.68 (1.89)	7.82 (1.85)	1.68	0.170	0.010
Number of friends	10.15 (8.42)	8.24 (7.68)	7.89 (7.52)	7.68 (7.45)	2.21	0.086	0.013
Neighbourly relations	6.45 (2.28)	6.58 (2.41)	6.89 (2.35)	7.32 (2.22)	3.24	0.022*	0.019
Social relationships index	8.19 (1.38)	7.54 (1.52)	7.65 (1.48)	7.79 (1.45)	4.82	0.003**	0.028
Trust							
Trust index	2.68 (0.85)	2.71 (0.89)	2.84 (0.91)	3.05 (0.87)	4.15	0.006**	0.024

Note: Weighted one-way ANOVA. * $p < 0.05$, ** $p < 0.01$. η^2 = effect size.

Significant differences can be observed between age groups in terms of life satisfaction and the happiness index, indicating that subjective well-being varies across different stages of the life cycle.

Post-hoc comparisons (Tukey HSD) indicate that the over-60 age group shows significantly higher levels of satisfaction and happiness than middle-aged groups, particularly those aged 30–44.

In the area of social relationships, age differences present a mixed picture. While there are generally no significant differences in the quality of relationships, younger age groups show more favourable values on the overall social relationship index. In contrast, the quality of neighbourhood relationships improves with age, which may indicate a strengthening of local embeddedness.

Significant age-related differences can also be observed in the trust index. The 60+ age group shows a significantly higher level of trust than younger age groups, which is consistent with international findings indicating that trust generally increases with age (Li & Fung, 2013; Poulin & Haase, 2015).

Testing the hypothesis

H5 (Age: non-linear, U-shaped relationship):

The results clearly support the hypothesis. In the case of life satisfaction and the happiness index, the pattern of age differences suggests that subjective well-being does not change linearly with age. The lower values for middle-aged groups, along with the more favourable indicators for younger and older age groups, outline an U-shaped relationship. This pattern is consistent with findings in the international literature (Stone et al., 2010; Blanchflower & Oswald, 2008), which suggest that the trajectory of subjective well-being over the life course often follows a U-shaped curve.

Beyond age differences, it is also worth examining how other dimensions of social position – particularly educational attainment – structure the phenomena under investigation.

Differences by educational attainment

Table 6 presents differences by educational attainment in the dimensions of happiness, social relationships and trust.

Table 6. Differences by educational attainment

Variable	Primary	Secondary	Higher education	F-value	p-value	η^2
	(n=92)	(n=263)	(n=145)			
	M (SD)	M (SD)	M (SD)			
Happiness and quality of life						
Life satisfaction	6.95 (1.85)	7.32 (1.62)	7.82 (1.52)	8.45	<0.001***	0.033
Happiness index	6.88 (1.68)	7.22 (1.48)	7.68 (1.42)	7.92	<0.001***	0.031
Social relationships						
Family relationships	7.85 (2.18)	8.08 (2.01)	8.42 (1.85)	2.45	0.087	0.010
Friendships	7.32 (2.05)	7.62 (1.88)	8.05 (1.75)	4.68	0.010*	0.018
Number of friends	6.85 (6.92)	8.24 (7.68)	9.95 (8.42)	4.25	0.015*	0.017
Neighbourly relations	6.58 (2.45)	6.78 (2.35)	7.12 (2.22)	1.68	0.187	0.007
Social relationships index	7.15 (1.62)	7.68 (1.45)	8.38 (1.32)	18.95	<0.001***	0.071
Trust						
Trust index	2.58 (0.95)	2.78 (0.88)	3.05 (0.82)	7.82	<0.001***	0.030

Note: Weighted one-way ANOVA. * $p < 0.05$, *** $p < 0.001$. η^2 = effect size.

Based on the results, educational attainment is associated with significant differences across several dimensions. A clear positive pattern can be observed in the case of subjective well-being indicators; groups with higher educational attainment are consistently characterised by higher levels of satisfaction and happiness.

A more nuanced picture emerges with regard to social relationships. While significant differences can be observed in the overall social relationship index according to educational attainment, these differences are less clear-cut in certain qualitative dimensions of relationships. At the same time, the quality of friendships and the size of the social network show more favourable values among those with higher levels of education.

A clear pattern is also observable in the dimension of trust, with higher educational attainment being associated with higher levels of trust. This suggests that education strengthens not only subjective well-being but also certain elements of social capital.

The results are consistent with the international literature, which suggests that higher educational attainment is generally associated with higher levels of social capital and trust (Huang et al., 2009; Gesthuizen et al., 2008).

Testing the hypothesis

H6 (Education \rightarrow higher well-being, social relationships, trust):

Based on the results, the hypothesis was partially confirmed. Higher educational attainment is clearly associated with higher levels of subjective well-being and trust.

However, in the case of social relationships, the effect is more nuanced. While it is evident in the aggregate indicators and certain dimensions, no significant difference is observed across all aspects of relationship quality.

This suggests that the effect of educational attainment is primarily mediated through certain dimensions of well-being and social capital, and has a less direct influence on all aspects of social relationships.

Overall, the results reflect the classic effect of social status, whereby groups with greater resources tend to exhibit more favourable well-being and relationship indicators.

Summary evaluation of the hypotheses

The results of the empirical analyses are summarised in Table 7, which provides an overview of the tested hypotheses, their main empirical findings, and their level of support.

Table 7. Summary of the testing of research hypotheses

Hypothesis	Main findings	Decision
H1	Positive relationship between social relationships and well-being	CONFIRMED
H2	Positive relationship between trust and well-being	CONFIRMED
H3	The quality of relationships is more strongly linked to well-being than the quantity	CONFIRMED
H4	There is no significant gender difference	CONFIRMED
H5	Non-linear (U-shaped) relationship between age and well-being	CONFIRMED
H6	Higher educational attainment is associated with greater well-being and trust, but has a differentiated effect on social relationships	PARTIALLY CONFIRMED

Of the six hypotheses, five were fully confirmed empirically, while one was partially confirmed. In the case of Hypothesis H6, we found significant differences by educational attainment in both subjective well-being and trust; however, the quality of social relationships did not show consistent differences across educational attainment groups.

The results suggest that subjective well-being is fundamentally structured by social and trust-based embeddedness, as well as by various dimensions of social status.

Interpretation of the main findings in the urban context

Our research confirms that the quality of social relationships and the level of trust are closely linked to the subjective well-being of Debrecen's residents. The average level of life satisfaction is moderately high by international standards and is consistent with patterns observed in other Central European cities (Plačková et al., 2023).

The strength of the link between social relationships and well-being supports the findings of previous research (Diener & Seligman, 2002; Helliwell & Putnam, 2004), and suggests that both family and friendship relationships play a decisive role in shaping individual well-being.

Trust is also closely linked to well-being, yet it is at a relatively low level in the population studied. This duality – a strong association alongside a relatively low overall level – suggests that trust may be a key factor in subjective well-being, and increasing it could hold significant potential for improving the quality of urban life. The observed pattern is consistent with the trust deficit characteristic of the Central and Eastern European region (Glatz et al., 2020).

Demographic differences

The absence of gender differences in well-being and social relationships may at first appear surprising, yet it is consistent with international findings suggesting that in developed societies these differences are often negligible (Dolan et al., 2008). This may suggest that in urban environments, men and women have access to similar resources and social support structures.

Age differences follow a well-known U-shaped pattern in the international literature, with middle-aged people characterised by lower well-being indicators, while younger and older age groups are in a more favourable position. The stronger neighbourhood ties among the older age group suggest that the role of local embeddedness becomes more important with advancing age.

The impact of educational attainment is clearly evident, with higher levels of education being associated with more favourable well-being and trust indicators. This reinforces the relationship between human capital and social capital, and suggests that education is not merely an economic resource, but also a key determinant of social embeddedness and trust.

Urban context and social capital

Debrecen, as a regional centre, provides a unique urban environment for the study of social relations and trust. The relatively high level of neighbourly relations suggests that the city's size still allows for the survival of local communities, in contrast to larger metropolises (Fischer, 1982).

At the same time, the relatively lower level of trust draws attention to the limitations of social capital. This pattern is consistent with the characteristics of the Central and Eastern European region, where historical and

institutional factors influence trust relationships in the long term (Glatz et al., 2020; Rodríguez-Pose & von Berlepsch, 2014).

From an urban policy perspective, this suggests that both the physical and social environments play a key role in the development of social relationships and trust. The quality of public spaces, the services available, and measures to strengthen social cohesion can all contribute to increasing well-being.

Conclusions

The findings of this study highlight that subjective well-being is closely linked to individuals' social and trust-based embeddedness. The quality of social relationships and the level of trust emerge as key determinants, while educational attainment plays an important structuring role in shaping these patterns.

The results confirm that well-being is not merely a function of individual characteristics, but is deeply embedded in the structures of social relationships and social capital. The U-shaped pattern observed across age groups, together with the inequalities associated with educational attainment, suggests that well-being is shaped both by life-course dynamics and by social position.

From an urban policy perspective, the findings emphasise the importance of strengthening community ties and trust. Measures that support social cohesion, improve the quality of community spaces, and enhance institutional trust may all contribute to improving the quality of urban life.

Overall, the results underline that urban well-being is not solely an economic or infrastructural issue, but fundamentally a social phenomenon rooted in patterns of connection, trust and social embeddedness.

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Thematic Article

Social innovation in a Romani community. The case of the Gandhi Secondary School in Hungary

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Abstract

The Story. Following the post-communist transition of 1989–90, a Romani secondary school—the first of its kind in Europe—was established in Pécs, Hungary. This initiative began as a grassroots civic movement and operated under non-governmental management from 1994 to 2011. In 2011, the Hungarian state took over oversight, and the institution was restructured as a non-profit organisation. This study presents and analyses the Gandhi Secondary School as a notable example of social innovation. Research Questions. a) What prompted the surge of civic initiatives within the Romani community of Southern Transdanubia after the political transition? b) How can we explain the trajectory of the Gandhi Secondary School, which experienced initial success, followed by decline, and eventually stabilisation? Methodology. It utilises the framework of educational anthropology. The methodology includes secondary analysis of existing research, participant observation, narrative analysis, and social listening. Results. a) The uniqueness of the Gandhi Secondary School stems from its origin as a social innovation directly emerging from the local and regional Romani community. b) Although its lifecycle aligns with theoretical models of social innovation, its specific 'destiny' is closely linked to the socio-political context of the post-communist transition. Thus, this lifecycle serves as both a model and a unique historical case. c) The history of this innovation illustrates that in the Hungarian context, social innovations can only be sustained through strong partnerships with central/ local government.

Keywords: social innovation; educational anthropology; Romani education; Hungary; civil initiatives; Gandhi Secondary School

Theoretical Framework

In a previous study (Forray, Kozma & Malatyinszki, 2026), we demonstrated that social innovation is defined not only by its underlying models but also by its inherent uniqueness. Innovations always emerge within specific geographical and social spaces, shaped by distinct historical circumstances. This specificity is well illustrated by Gabriella Pusztai, who highlights the diverse socio-spatial variations in denominational education maintained through partnerships between the state and the churches (Pusztai, 2004, p. 84–98; 120–121; 258–262). Every social innovation is distinct—even when its life cycles appear similar. Consequently, social innovations are unique and essentially unrepeatable; they possess their own "destiny."

Social Innovations in Contemporary Hungary

Research conducted in recent years—compiled across several volumes (Márkus et al., 2019; Boros et al., 2021; Ibid, 2022; 2023; 2025)—gradually reveals the characteristics of social innovation in present-day Hungary. These findings suggest that social innovations primarily emerge within cultural life. The vast majority of our cases are grassroots initiatives arising from leisure activities (e.g., Dan & Kovács, 2021). Most remain within this sphere, only rarely evolving into economic innovations (Ragadics & Horváth, 2019; Radócz, 2021). The boundaries of these leisure-based activities are defined by local history collections (Hegedűs, 2019), community

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events (Mitrovics, 2021), musical ensembles (Mike, 2021), sporting events (Máté-Szabó & Márkus, 2019), educational projects (Forray & Bognár, 2022), and social enterprises (Tóth, 2022; Boros, Gergye & Lakatos, 2019).

An analysis of economic start-ups as social innovations (the business equivalent of grassroots cultural initiatives) is still pending (Bogdány et al., 2024). However, we already know that most start-ups fail just as other social initiatives do. Furthermore, the participants—the "local heroes" of the business world—often face failure due to the overwhelming power and influence of established economic organisations (Erdős, 2018).

Why is this the case? Why are local initiatives pushed primarily into the cultural sphere? Why do they falter in the economic realm, where "innovation" is typically understood as top-down changes initiated by senior management and implemented at lower levels (Hámori & Szabó, 2018)? How could this initiative be unleashed to drive economic and social change? Our research suggests that grassroots innovations spark when central control loosens in large organisations (including society itself). When a government becomes uncertain—often in the face of a sudden challenge—it creates space for "bottom-up" movements and initiatives. A prime example is the sudden wave of educational innovation triggered by the onset of COVID-19 (for numerous examples, see: Forray & Kozma, 2022). Similar patterns of government hesitation are often observed as parliamentary elections approach.

Why does this seem to happen almost by necessity? The answer lies in the development, status, and room for manoeuvre of the civic sphere, which is rooted in historical factors (Molnár, 1991). Successive waves of political centralisation in Hungary have weakened civil society, preventing it from gaining strength. This was not merely a consequence of 20th-century events; it re-emerged after the 1989/90 transition as a kind of "new system change." The casting of political roles has become increasingly one-sided: the government has increasingly concentrated power, attempting to sideline other players, including civil society. (The latter, of course, remains in the game, but is often forced into "irregular" or informal tactics.)

Unequal Power

This is not a uniquely Hungarian phenomenon. It has occurred across Central and Eastern Europe, albeit with varying degrees of impact. This is partly due to the recent past—membership in the Soviet sphere of influence—and partly due to deeper historical roots. Martyn Rady's (2024) recent synthesis of Central European history reveals that cameralism, the region's characteristic economic policy since the 17th century, steered social policy towards excessive government power. Due to the network of small towns, the feudal agrarian system, former Ottoman rule, and the constant pressure to "catch up" with the West, Central European states repeatedly developed tendencies toward absolutism. These are withered and marginalised grassroots initiatives. Consequently, civil society emerged with greater difficulty across Central Europe than in the western half of the continent. This fragility was further exacerbated by the Soviet occupation following the Second World War.

This explains why social innovations in our region have largely been relegated to leisure activities, while in the economic sphere, their growth is hindered by the dominance of the state or, since 1990, multinational corporations. It also explains why social innovations are not just theoretical models, but unique, individual phenomena.

Overestimated Potential

The unequal distribution of power has further consequences. Firstly, both the government and the civic sphere tend to overestimate their own capabilities. An increasingly powerful government seeks to penetrate deeper into the civic sphere, reaching into the private lives of families—much like the aforementioned cameralists of absolute monarchies. This remains true even in the neoliberal era; though direct government power may seem weaker, it is often co-opted by the institutions of international capital. Conversely, as the room for manoeuvre for civil society shrinks, its participants become more prone to overestimating their potential, embarking on activities they lack the resources to complete. Such failed civic initiatives often morph into political propaganda, appearing on the political stage as a contest between the government and the opposition.

Mutual Dependence

Another consequence of unequal power distribution is that neither governments nor civic actors can succeed without the other. In studying social innovations, we have realised that in Hungary, a civic initiative is only successful if it secures government support—whether political, financial, or both (cf. Kozma, 2022). Civic initiatives struggle if the government resists; however, government efforts also fail if they cannot win over civil

society. We see numerous examples of this, ranging from migrant support and environmental protection to urban development and water management (see Márkus, Boros & Kozma, 2022, p. 44–191). Partnership between the government and civil society: this is the secret to success in contemporary Hungary.

The Gandhi School

No Man's Land

The definitive history of the Gandhi—officially the Gandhi Secondary School, Technical Institute, College, and Primary School of Arts (hereafter, Gandhi)—is yet to be written. While frequently cited in academic literature (Varga, 2024; Boros, 2025), it is usually treated either as a model for Romani identity education or as a vehicle for social mobility. These two perspectives represent a long-standing dilemma in educational policy: the conservative focus on ethnic identity preservation versus the social policy focus on social integration and upward mobility (Forray & Kozma, 2010).

Since its inception, the Gandhi has struggled with this duality. Originally intended to foster a Romanicultural identity, it has evolved into an instrument of state social policy, specifically aimed at the social inclusion and labour market integration of the Romani population. This shift in mission was the price paid for transitioning from civil society governance to state control.

Despite its significance to the field of Romani Studies (Romology), the school's history has only been rigorously documented by one author (Dezső, 2010; 2013), whose work was limited by the intense personal and professional sensitivities surrounding the institution's staff. Our objective here is not to provide a full historical record, but to illustrate how this specific innovation was transformed into a formalised state organisation.

The Birth of a School (1992–1994)

Located in Pécs, the Gandhi was Europe's first Romaninational minority institution to offer a secondary school-leaving certificate (*matura*). It was established in 1994 by the Gandhi Foundation, with the vision of cultivating a Romani intelligentsia rooted in its own community. Pécs became the eventual site after the city of Kaposvár resisted the school's establishment (Dezső, 2010, p. 57–88).

The Romani population in the Transdanubian region has unique characteristics. Many belong to the Boyash (Beás) group, speaking an archaic Romanian-based language. Traditionally, the Boyash have placed a higher premium on formal education as a primary channel for social mobility compared to other Romani groups (Forray & Orsós, 2010).

The foundation was established on 11 April 1992, supported by a broad coalition of 18 organisations and 8 private individuals, including prominent figures such as János Bogdán, Anna Orsós, and Tibor Derdák. Even President Árpád Göncz lent his support. The goal was to train competitive, degree-bound students who would embrace their Romani identity and eventually return to revitalise their home communities.

The Heroic Age (1994–1999)

Under the leadership of its emblematic first school director, János Bogdán, the school experienced its "heroic age." In early 1994, the founders travelled from village to village across South Transdanubia to recruit students. The school opened in September 1994 with 56 students, selected from hundreds of applicants.

During this period, the pedagogical programme was solidified. Methodology for teaching the Boyash and Lovari languages—previously undocumented in formal curricula—was developed. The school became a global symbol of Romani intellectual training, attracting international delegations and journalists. By 1998, a dedicated campus was completed in the Meszes district of Pécs. Bogdán envisioned a complex that was not just a school, but a "second home." In 1999, the work culminated in the first graduating class successfully completing their final exams.

Internal Conflicts and External Pressure (1999–2010)

Tragically, János Bogdán died in a car accident in early 1999. While the first graduation proved the model's viability (Derdák, 2008), the mid-2000s brought sustainability issues. The foundation faced chronic funding shortages, and the campus began to deteriorate.

By 2008, the school faced the risk of insolvency. Professional and personal conflicts over leadership fractured the board of trustees; five of the nine original members departed, rendering the foundation virtually dysfunctional (Stemler, 2009). This crisis intensified the debate between those who feared the school's autonomy and those who demanded a state financial lifeline.

Nationalisation (2011–2020)

Following the 2010 parliamentary election, the state moved to settle the school's debts in exchange for tighter control. The original foundation was replaced by a state-owned non-profit company (2014). This was more than a name change; it was a "model shift." The school's assets were transferred to the National Asset Management Agency, and its operation was placed under the Ministry of Human Resources (EMMI, 2014–2020).

Identity Formation or Equal Opportunity? (2020–)

In 2020, management shifted from the Ministry of Human Resources to the Ministry of Interior, reflecting a new government strategy that categorises Romani inclusion as a social security and opportunity-creation task rather than a purely cultural one.

By now (2025–2026), the institution serves approximately 400 students (including adult education and the arts school) and employs over 100 staff. The current leadership has introduced vocational training, such as law enforcement studies, which provides a direct path to employment.

However, Gandhi's original uniqueness has faded. Rather than being a stand-alone beacon of identity formation, it is now part of a state-managed national network. While it is designated as a "methodological centre," its primary focus has shifted from classical secondary education toward vocational training and social inclusion.

Aims and Methods

Aims

By studying the Gandhi School, we examined a social initiative launched by Romani people during Hungary's democratic transition. Our inquiry focused on the initiative's ultimate fate with particular interest in the evolution of the partnership between civil society and the government.

We have followed the trajectory of the Gandhi School almost since its inception. We were also involved in the school's work at an organisational level, as it served, for a period of its life, as the "model school" for the Department of Romani Studies (Romology) at the University of Pécs. Individually, we have contributed to various publications based on research conducted within and about the institution (Boros, 2025; Varga, 2014). Below, we outline how our diverse methods of information gathering have been synthesised into a research methodology.

Approach

The methodological background for our investigation of the Gandhi School is rooted in educational anthropology. (For more on educational anthropology, see Tóth 2023; Tóth 2023a). Within this framework, certain terms are used in a specialised sense, marked here with quotation marks.

In practical terms, an educational anthropological approach meant that we viewed Gandhi not merely as a school, but as a community. We sought to understand the culture—behavioural patterns, values, norms, and sanctions—of those living and working within the institution, including students, teachers, and support staff (see Kozma, 1985, p. 69–93). Our primary question was not what they teach and learn, but how they live. In this approach, the school becomes a social arena where issues of social equality and mobility are decided. We focus on hidden rules rather than the manifest curriculum; community occasions (ceremonies, meals, leisure time, sports, etc.) serve as opportunities to observe the dynamics of school society.

Consequently, Gandhi is not just a building, but a symbol of the local and regional Romani population becoming an accepted national minority. The "Gandhi spirit" is a shared myth in which origin stories, collective memories, and shared activities intertwine. It is an anthropological question whether Gandhi represents cultural production or cultural reproduction: does it raise a new Romani intelligentsia, or does it shape a dual Romani-Hungarian identity? Educational anthropology integrates the differing linguistic and ethnic backgrounds of various Romani groups into the study of the school's society.

Participatory Research

The foundation of our investigation was participatory research. This involved more than mere data provision; it meant a continuous presence in Gandhi's life through attending events, delivering lectures, classroom observations, and ongoing cooperation with the Department of Romology.

Although this method is often criticised for its lack of formality, we consciously adopted a holistic approach. We did not keep formal logs of our observations; the study's concept matured over years of experience and professional debate. While official documents describe manifest functions (the mission), participatory observation allowed us access to latent functions: the weaving of informal networks between students, changes in teacher-student communication in classrooms and hostels, daily "rituals" (dining, dress, games), and gender relations.

Narrative Analysis and Storytelling

In the case of Gandhi, narrative analysis involved semi-structured and unstructured interviews. These supplemented the conversations held over many years with teachers, students, educational administrators, university lecturers, and civic activists. The goal was to collect stories, as they reveal community dynamics through their movement and subjective truths.

Founders and the first generation of teachers spoke of the "heroic age," the civic optimism of the transition era, and the original "Gandhi spirit." Former students focused primarily on how their self-definition changed under the school's influence and what they retained of the Gandhi ethos as adults. Meanwhile, current employees analysed the costs of institutional survival, nationalisation, and sustainability, balancing the founders' original goals with state expectations.

Community Resonance

Through interviews and conversations, we sought to capture the inner life of Gandhi; social listening helped us track the school's broader community resonance.

Observing and documenting community resonance included both spontaneous and guided field conversations, as well as participation in meetings and forums where Gandhi was discussed or even mentioned in passing. We monitored social media, collecting posts about Gandhi from 1996 to 2024 (though no quantitative analysis was performed). We also took note of "street-level" rumours and general public remarks regarding the institution.

Discourse Analysis

Through discourse analysis, we examined not only the grammatical structure of texts but also how reality is constructed through language.

We identified two main educational policy trends appearing in the texts (conservative vs. progressive/liberal). Our analysis showed through which lens a given text (e.g., an interview or newspaper article) presents Gandhi. It also highlighted the different actors' views of the "truth" (movement-based vs organisational narratives). Our aim was not to determine which is correct, but rather who says what, why, and along which interests. Regarding the changes after 2011, we analysed how internal and external communication shifted (e.g., the use of law-enforcement and administrative terminology vs autonomy). We identified recurring motifs in the texts (such as shared celebrations and meals) that build community identity, allowing us to understand the school's physical developments as symbols.

Finally, we must emphasise the holistic nature of our study. This is reflected in our terminology. We prefer to call this a "study" rather than "research"; we were, after all, "students" of this school as much as we were its observers.

Findings and Conclusion

Our investigation aimed to understand the model and life cycles (the "destiny") of a Romani-led initiative. The results are summarised below.

Symbols and Myths

Buildings: A constant question in the history of Gandhi was where it should be located and where it would finally settle. This was partly a matter of real estate and partly a question of social acceptance. Consequently, the Gandhi building became a symbol. Internally, it represented the sentiment: "We are here, we are present, we have arrived, and we are alive." Externally, it manifested the local society's and the wider community's willingness to accept the Romani and to live in the school's vicinity.

The Gandhi Spirit: This "spirit" is a continuous topic of conversation in interviews and stories throughout the school's life. These accounts reveal a complex phenomenon embodied by the Gandhi society. Preserving the "Gandhi spirit" represents an attempt to maintain the original mission even as the movement transforms into a formal organisation under changed circumstances.

Cultural production or social reproduction? This dilemma frequently recurred in our conversations. For those who viewed Gandhi as a national minority institution, the school created something entirely new (production). For those who defined it as a traditional school, it represented the improved reproduction of existing cultural relations (equal opportunity, social mobility, and dual identity).

Anthropological view or socio-economic approach? This dilemma emerged more from the stories themselves; we did not encounter it in the broader community. In public discourse, the sociological approach dominated (viewing the Romani through the lens of poverty, backwardness, and marginalisation). The anthropological approach (distinguishing among Boyash, Hungarian Romani, and Vlach Romani) was rare, and when it did occur, it usually focused on the Boyash's dominance.

The Besieged City

Through the secondary analysis of interviews, stories, and conversations, we were able to understand Gandhi from the inside—as if it were a "besieged city."

Origin Myths: Discourse analysis (narrative analysis) highlighted which group considers which origin story to be true and valid: those who still see Gandhi as a child of the democratic transition, or those who embraced the school and placed it on solid educational foundations. The conservative discourse sought keywords such as "tradition," "ethnic specificity," and "Boyash identity," viewing the school as a bastion of cultural heritage. In contrast, the progressive/liberal discourse was dominated by terms such as "mobility," "equal opportunity," and "social integration," viewing the school as a tool for escaping poverty. This debate has not ended; if it has quietened, it is perhaps only due to declining student numbers.

The "Golden Age": The movement-based narrative emphasised the freedom of the regime change and grassroots initiative (the myth of the "Golden Age"). The organisational/state narrative highlighted the transition from chaos to order, predictability, and professional sustainability.

Relinquished Freedom: Discourse analysis proved particularly effective in examining changes after 2011. Following the move under the Ministry of Interior, law enforcement and administrative terminology appeared. Participants increasingly speak of "autonomy" as a longed-for state or a relinquished freedom. The 2011 transition to state maintenance was perceived as a new survival strategy. The charismatic, emotion-filled era of the 1990s movement gradually cooled, giving way to organised stability.

Community identity: Discourse analysis identified recurring motifs (e.g., shared celebrations, meals, sporting events, leisure activities) that build community identity. Through this analysis, the symbolism and "mythology" of Gandhi (origins, buildings, ethos) became understandable.

Social Acceptance and Integration

By analysing community resonance, we tracked the changes in Gandhi's social acceptance, from its status as a "besieged city" to its integration into government social policy.

Mission: Initially, community resonance focused most strongly on Gandhi's mission (Romani nationality vs. social equality; escaping poverty vs. educating an intelligentsia). Later, the focus shifted toward the school's pedagogical life (learning, teaching, methods, results), as well as admissions, placement, and commuting (daily or weekly travel, boarding conditions). These debates intensified again on the threshold of "nationalisation"; while the majority welcomed it, a minority felt threatened and dispossessed. The debate largely centred on whether a Romani school "belongs" under the Ministry of the Interior (responsible for order, regulations, and inspections). At the time of writing (2025–2026), public discourse focuses more on the generous facilities,

opportunities, and prospects, as well as the fact that the "demographic drought" is gradually reaching Gandhi's core audience. Once again, the founders' fear returns: "What will become of you, Gandhi?"

Financing: Community resonance was perhaps most intense during the period of nationalisation. This included questions of funding and fear of the Ministry of Interior. The most frequent debates revolved around autonomy versus stability. Discussions in Facebook groups and on YouTube were often heated; cultural events were clearly seen as expressions of Romani identity.

Stakeholder Ecosystem: Analysis of the stakeholder ecosystem is usually centred on Gandhi's uniqueness. Is Gandhi still recognised internationally as a development of European significance? Or has it simply merged into the national education system, with all its positives (high funding levels) and negatives (enrolment difficulties, administrative overload, and wage issues)?

Conclusions

The story of Gandhi is the story of a social innovation—but not merely that. It illustrates the fate of social initiatives within a Romani community during Hungary's democratic transition. The momentum of the transition was necessary to launch the initiative, but integration into the formal educational system was the condition for this innovation to endure.

The interviews and personal stories, on one hand, and community resonance, on the other hand, revealed the contradictory nature of these events. Yet, through this complex chain of events, the transformation of a charismatic initiative into a formal organisation runs like a "golden thread."

Civic initiatives can only break through and force change if they enter into pragmatic, complex partnerships with government actors. However, the price of this partnership is that the charismatic movement must relinquish or transform its original goals. For the "Gandhi spirit" to live on, it must be nurtured consciously, continuously, and with great care.

This is why we say that Gandhi has a "dual self." On the one hand, it is an example of a minority community taking action and initiative toward social advancement and inclusion. On the other hand, it serves as a warning that the ultimate sustainer of social innovations is the very organisation (the state system) from which they initially sought to break free.

AI Disclosure Statement: This study was developed in continuous consultation with the Google Gemini 3.0 artificial intelligence model. The AI tool was specifically used to refine the linguistic style, structure the theoretical framework, and adapt the manuscript into English. The authors strictly adhered to the regulations and ethical guidelines set forth by the Faculties of Humanities of the Universities of Debrecen and Pécs. The authors maintain full accountability for the intellectual content, data integrity, and original conclusions presented in this study.

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Research Paper

Strengthening family–school partnerships through research, training and innovation: Reflections from the MTA-DE-PARTNERED program

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Abstract

This study presents the comprehensive findings of the MTA-DE-PARTNERED research and development program, which ran from 2021 to 2025, and aimed to explore and develop the theoretical, empirical, and practical dimensions of family-school partnerships. Within the framework of Epstein’s model of parental involvement, the research examined parents’ educational and learning-support activities at home, school–parent communication, volunteering, participation in decision-making, and community building. Analyses based on a review of the literature, large-scale questionnaire surveys, interviews, and case studies show that patterns of parental involvement are influenced by the child’s achievement, school type, school sector, and social background. The MTA-DE-PARTNERED program placed a strong emphasis on improving teacher training, recognizing that teachers’ preparedness and attitudes play a key role in the quality of the partnership. During the development phase, we created an evidence-based collection of best practices, a university toolkit, and an innovative educational board game based on cooperative. The board game aimed to support the positive development of asset-based attitudes among students and teachers through the simulation of various parental involvement scenarios. The results of the impact assessments suggest that the board game significantly contributes to the development of reflective thinking, a multi-perspective approach, and partnership-centered attitudes. This study shows that strengthening family-school collaboration requires systemic, research-based, and training-related innovations that will, in the long term, contribute to the improvement of student achievement and the development of pedagogical culture.

Keywords: parental involvement; home-school partnership; teacher training; educational board games

Introduction

Parental involvement has been defined in myriad ways. A narrower definition from the literature refers to parental involvement as school- or home-based activities, beliefs, attitudes, and expectations of parents that directly support a student’s academic progress. At the same time, a broader definition interprets parental involvement as all activities and attitudes of parents that support students’ school careers not only directly but also indirectly. Schoolwork, therefore, can be supported not only by direct academic assistance and school-related activities, but also by the parental presence and care itself. For example, this could include general conversations or shared activities unrelated to school, even involvement in activities such as household chores

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(Bacskai, 2020; Ceglédi et al., 2024; Desforges et al., 2003; Epstein, 2018; Gál et al., 2022; Imre, 2017; Jeynes, 2005b, 2016; Killus & Paseka, 2020; Marton, 2019; Podráczky, 2012; Pusztai, 2009, 2015; Pusztai et al., 2024; Pusztai & Engler, 2020).

Special literature often distinguishes between two forms of parental involvement: school-based and home-based. School-based involvement refers to parents' presence at school, while home-based involvement refers to parents' assistance with their children's schoolwork at home (Desforges et al., 2003; Epstein, 2018; Imre, 2017; Jeynes, 2005b, 2016; Killus & Paseka, 2020; Marton, 2019; Podráczky, 2012; Pusztai et al., 2024). Epstein's (1995; 2018) Six Types of Parental Involvement goes beyond the dichotomies of direct versus indirect and school versus home parental involvement, to further expand the definition of parental involvement: home educational environment, communication, volunteering, support for learning at home, parental participation in decision-making, and connection to the community (Epstein, 1995; 2018). The model has been applied to frame both theoretical and practical approaches.

This study presents the comprehensive research and development activities of the MTA-DE-PARTNERED Parent-Teacher Cooperation Research Group (Hungarian Academy of Sciences - University of Debrecen - Parent-Teacher Cooperation Research Group), which examined and developed family-school partnerships from multiple perspectives. MTA-DE-PARTNERED was conducted as part of the Research Programme for Public Education Development of the Hungarian Academy of Sciences under the leadership of Prof. Dr. Gabriella Pusztai between 2021 and 2025. The organizational framework for the program was provided by the Hungarian Academy of Sciences and the Center for Higher Education Research and Development (CHERD-Hungary) at the Faculty of Humanities of the University of Debrecen. The research and development team worked various international and domestic colleagues, building on partnerships across multiple generations and diverse stakeholders (academic researchers, educators, school teachers, support professionals, and parents). A significant and novel approach to this work was the inclusion of students in teacher training programs as equal partners in the program's working groups. The program aimed to foster mutual learning by bringing new scientific research findings into the world of education while integrating schools' practical knowledge and experience into university research. Furthermore, this program hoped to facilitate the transmission of traditional knowledge development beyond traditional research through the comprehensive development of pedagogical knowledge, perspectives, and attitudes (Pusztai et al., 2024b; 2025).

In this study, we outline the theoretical foundations of the four-year project, the methodological framework, key findings of the empirical studies, and the evidence-based interventions and development activities that build upon these findings. We place particular emphasis on analyzing the role of teacher training, as research indicates the importance of teachers' knowledge, preparedness, and attitudes in school-family partnerships. At the same time we also acknowledge that teachers cannot be expected to bear sole responsibility for developing partnerships, as other school staff, stakeholders, communities, and society as a whole constitute the broader context in which they work (Bacskai, 2015; Csók & Pusztai, 2022; Epstein, 1990; 2018; Hrabéczy et al., 2023; Patakfalvi-Czirják et al., 2018; Pusztai et al., 2025a; Pusztai & Csók, 2022; 2023; Pusztai & Fényes, 2022; Széll, 2018). We will discuss these developments in teacher education in greater detail, as one of the goals of our research was to make the family-school relationship much more self-evident to the new generations of teachers entering the profession.

Ways to Build Partnership

Schools' partnerships with families are a critical aspect of children's education. Epstein's (1987) Theory of Overlapping Spheres of Influence illustrates how children navigate the home, school, and community environments throughout their development. When the three environments are pushed together, children experience cohesive and comprehensive support. When the three environments are pulled apart, however, the disjointed or contradictory information can create confusion for children. Internal and external forces can direct the overlap of spheres. Internal forces include relationships between individuals and institutions within each sphere (Pusztai, 2015); external forces include philosophies, experiences, and histories of the spheres.

To encourage partnerships across home and school, Epstein (1995) also developed the Six Types of Parental Involvement. This typology describes the various ways schools can deepen their partnerships with families through practices that support parenting, communicating, volunteering, learning at home, decision-making, and collaborating with the community. These practices can help increase the overlap of the home, school, and community spheres of influence.

Research has documented how partnerships across the home and school benefit students and families. Several meta-analyses confirm the relationship between family engagement and student academic outcomes (Fan & Chen, 2001; Jeynes, 2003; 2005a; 2007; Wilder, 2014). Similar positive relationships have been found between family engagement and student behavioral, social, and mental health outcomes (El Nokali et al., 2010; Pusztai, 2015; Sheldon, 2007; Sheridan et al., 2019).

Despite this literature on the importance and benefits of family engagement, many teachers are not explicitly trained or prepared to partner with their students' families. In the United States, very few teacher preparation programs require pre-service teachers to take courses on parental involvement or family engagement. To examine educator preparation in U.S. training programs, Epstein and Sanders (2006) surveyed administrators in schools, colleges, and departments of education. They found that most leaders understood the value of developing partnerships with families for teachers, principals, and counselors in schools. However, very few administrators felt that graduates from their programs were competent in developing these partnerships.

Teachers also overwhelmingly believe that family engagement is important, but very few teachers feel that they can implement parental involvement effectively in their practice (Kirmaci, 2019). This can be compounded by the challenge that teachers may hold preconceived notions or deficit-based perspectives of students and their families (Kirmaci, 2019; Lawson, 2003). Yet, research has shown that with adequate training, pre- and in-service teachers can unlearn biases, overcome challenges, and implement effective family engagement practices (Peralta-Nash, 2003; Sanders-Smith et al., 2019; Smith & Sheridan, 2019).

This literature highlights the importance of teacher training and exposure to various family engagement practices to adequately partner with families and support students in their development. Without adequate preparation, teachers risk alienating families—and ultimately, their students—especially those from historically minoritized groups.

Materials & Methods

The four-year program followed the ADDIE model (Analysis, Design, Development, Implementation, Evaluation), which is an evidence-based methodology that is structured around deliberate iterative steps, combining the benefits of research and development (Branson, 1978; Visscher-Voerman & Gustafson, 2004).

During the program's foundational analysis (A: Analysis) phase, we explored the international knowledge base on the topic by reviewing 2,717 sources through the coordinated efforts of 11 thematic literature review working groups. The analysis phase also included the analysis of background data (CHERD-Hungary's previous large-scale databases on public and higher education, the KINCS (Mária Kopp Institute for Demography and Families) Value-Creating Child-Rearing database, PISA, and the Hungarian National Competency Assessment), which provided an opportunity to thoroughly outline the current landscape and conduct a deeper examination of the various complex interrelationships that exist in parental involvement. In addition, we conducted exploratory interviews with educators (N=45), who described their current understanding of parental involvement, as well as their attitudes, intentions, knowledge, opportunities, and scope for action. We also conducted case studies by visiting schools to outline the current climate around parental involvement and create a map of problems and opportunities.

The ADDIE model is an iterative development framework, which allowed us to begin the design (D) and development (D) phases in tandem with the analysis phase. Throughout these phases, we were able to continuously draw on existing literature to validate our research and development decisions. We also continuously supported this phase with our ongoing research projects. Using quantitative data, we gave voice to the perspectives, attitudes, intentions, and knowledge of elementary school students (N=206), parents (N=1003), teacher trainees (N=1336), and educators (N=116). These data asked about participants' perspectives, attitudes, intentions, knowledge, scope of action, and opportunities around parental involvement. We developed a 313-page collection of best practices, a university toolkit consisting of three modules (communication with parents, collaboration, and learning support), and a board game to synthesize the domestic and international evidence base on family-school partnerships.

The implementation (I) took place in several phases, accompanied by research monitoring and continuous improvement. As a result, the evaluation phase (E) served not as a final step but as a source of ongoing feedback to support the refinement of the implementation. We also assessed the impact of the board game which is presented in the following chapter.

Throughout our research and development efforts, thematic working groups were used to focus specifically on target groups such as special education needs students, low-SES students, Roma students and their parents. These thematic working groups engaged with a wide range of actors who support these subgroups of students and their parents, such as in-service and pre-service teachers, and other school staff (e.g., social workers).

Results and Discussion

In a departure from standard practice, we present a summary of the results in conversation with prior studies, including our own earlier research, using Epstein's Six Types framework (Epstein, 2010; Epstein et al., 2002). We hope that this format of presenting our findings effectively contextualizes this project in the historical body of literature to best highlight the importance of teacher training in fostering more effective partnerships between future teachers and parents.

Parenting: home learning environment

From the teachers' perspective, strong home-school cooperation leads to significant positive outcomes, primarily because parents' positive attitudes toward the school increase students' commitment to learning (Dusi, 2012). The interviews conducted for the current study suggest that teachers tend to expect parental support when they face challenges with students (e.g., due to unwanted student behaviors). This finding is supported in the literature, which indicates that teachers benefit from additional family support in navigating challenging situations with students (Day & Travers, 2012; Sutherland et al., 2023). However, the literature also documents how teachers often view parents as "recipients of support" rather than as equal partners, ultimately limiting the role parents can play in supporting teachers and school decision-making (Bæck, 2010). If teachers want or expect authentic support from parents to help navigate challenging situations, we believe that teachers must learn to approach families as equal partners.

Parental involvement at home can increase a student's social capital at home, which can ultimately translate to success in school (Coleman, 1988; Pusztai, 2009). Our findings suggest that various factors influence parental involvement at home. Foremost, the child's gender has a significant impact. Parents spend considerably more time with girls than with boys (Fényes et al., 2022). Interestingly, we found that the impact of family structure was contrary to our expectations. Single-parent families do not lag significantly behind two-parent families: although single-parent families may have less financial stability compared to two-parent families, single-parent families may invest more in their children's education (Jacobs & Daniels, 2020). Finally, findings showed that student achievement is also important: the more successful parents perceive their child to be, the more attention and varied parental involvement they devote to the child; conversely, when academic performance is poor, parental involvement tends to be limited to academic support (Pusztai, 2025). To promote strong partnerships with all families, we recommend that teachers be cognizant of these factors that relate to home-based parental involvement.

Communication

In Hungary, communication between parents and teachers is the most crucial aspect of parental involvement (Bacsikai et al., 2024). Unfortunately, our findings suggest that teachers felt that they had a harder time connecting with parents from socially disadvantaged backgrounds. Furthermore, our teacher survey indicated that sociocultural differences between families and school staff can hinder the development of harmonious relationships. Wong (2012) found that immigrant families from Hong Kong living in Australia faced many challenges in developing home-school relationships. In our context, the prior research has found that schools had challenges developing relationships with economically disadvantaged and Roma families (Ceglédi, 2024; Saraiva & Wagner, 2013).

However, our findings from the parental survey partially contradict our initial expectations from the extant literature. We hypothesized that parents of socially disadvantaged students would communicate less with teachers based on prior literature showing that social differences between two parties can make communication more difficult (Colegrove, 2019; R. Gaspar et al., 2025). Unexpectedly, we found that schools in our study tend to focus on communicating more with families from disadvantaged backgrounds. Perhaps schools in our study were proactively establishing lines of communication with historically minoritized families to create more inclusive school-family partnerships.

Additionally, our prior research showed that parental involvement in this area also decreases as students get older (Pusztai et al., 2024; Pusztai & Engler, 2020). Our data also showed that parents of students in high

school and elementary school report more frequent communication compared to vocational school. The interviews and parent questionnaires also indicated that the school's governing body plays a significant role in communications. Parents of students in church-affiliated schools perceived more frequent school communications, compared to other school sectors. In vocational schools, this poses a greater challenge for both the school and the parents (Pusztai & Rusznák, 2025; Rusznák & Pusztai, 2024).

Generally, school administrators respond quickly to parental inquiries. Partnership-based communication proves to be the greatest source of satisfaction for parents, particularly in state-run elementary schools, among rural parents with college degrees, and among those with low levels of education.

Volunteering

The current study found that approximately one-third of parents engage in some form of volunteer work or make donations. The frequency of volunteering is significantly influenced by family and social background characteristics: married parents with higher socioeconomic status, particularly those with college degrees are more likely to volunteer, and parents of students in upper elementary school participated in volunteer work at the highest rate. Studies examining parental volunteering generally do not address background characteristics (Kocsis et al., 2022), but those who do emphasize the importance of parents who are traditionally excluded from these practices being able to connect with the school in this way (Pusztai et al., 2024). Volunteer participation and willingness to donate are higher in church-run and foundation-run schools, while they are lowest in vocational schools. This parental involvement type is also linked to student performance: parents of students who perform above average are much more likely to volunteer and donate. According to parents, different types of schools encourage volunteering to varying degrees: elementary schools and religious institutions more frequently request and accept parental assistance, yet preparation and support for parents to carry out volunteer tasks are often lacking (Markos & Kocsis, 2025). Our findings highlight the importance of democratizing and supporting volunteering to include more families, while being mindful of differences in background characteristics.

Home learning support

We examined parental involvement at home using an adapted version of the Parent and School Survey (Ringenberg et al., 2005), which we adapted to the Central and Eastern European context. Based on our results, the effect of background variables is moderate: parents of girls feel more involved in certain areas, and single parents talk to their children more often about schoolwork and future plans. Parents with college degrees tend to be more involved in home learning support areas. Our results did not show the same degree of variation as presented in the international literature (Paseka & Byrne, 2019), where they highlight how home learning support may contribute to increasing inequalities.

Our findings also suggest that children's age was also a determining factor of home learning support. Parents of elementary school students are more active in all activities related to learning at home compared to parents of secondary school students. Parents of students at public and religious schools show the highest level of involvement at home compared to parents of students in other school sectors (Pusztai, 2025). Parental involvement is strongly associated with students' subjective and objective academic performance: encouraging daily reading and regulating digital activities are the strongest predictors, and they are particularly effective when both parents are involved. However, different forms of parental involvement support students' academic careers in varying ways and with varying degrees of effectiveness. For example, some literature has found that parental involvement in the form of control, excessive involvement, or monitoring, may negatively impact students' academic careers (Kocsis et al., 2025; Nyitrai et al., 2019).

Parental participation in decision-making

We also examined parents' involvement in school decision-making using data from both teachers and parents. From the parents' perspective, we analyzed the effectiveness of partnership-based communication between principals and parents. In the sample of including parents in three Central and Eastern European countries, a quarter of parents have participated in school decision-making bodies—a proportion that exceeds the OECD and EU averages (OECD, 2020). Parents are most involved in shaping their children's academic programs, while they are least involved in the evaluation and selection of teachers. The degree of participation depends significantly on the type of school, the school operator, the parents' social status, and student performance: parents of students in upper elementary school, those attending church-run or foundation-run schools, and those

with above-average performance are the most active. Our data show that the majority of parents view communications from the principal's positively. About 10% of the parents in our survey felt uncomfortable during personal meetings with school staff, particularly parents in small towns with blue-collar jobs and parents in rural areas with lower levels of education with children academically performing average or below. The majority of parents involved in decision-making are well-versed in the legal framework governing schools, which may be related to differences in background variables.

Interestingly, our data showed that teachers typically view parents as an extracurricular resource rather than as stakeholders in decision-making. Again, our findings reinforce the idea that teachers must view parents as equal partners—including as valuable decision-makers—to build authentic partnerships that holistically support students.

Collaborating with the community

A key element of Epstein's model is are the school, family, and community spheres of influence. In many Hungarian schools, the sense of "community" refers less to the community outside the school and more to developing a community within the school. We examined this in our research using data from the parent questionnaire. Previous research findings report that programs related to the parent community build trust and social capital among families from diverse backgrounds (Blair & Haneda, 2021; Hands, 2013; Keller et al., 2021). We know most about this topic from our practical experience. Many schools, without knowing the theoretical foundations, instinctively strive to bring parents closer to one another and to the school community. We must also recognize that the school is the one with the relative advantage and power—and ultimately, the responsibility—when it comes to community building. Both data from parents (Pusztai et al., 2025a) and best practices (Pusztai, Ceglédi, et al., 2024a) show the significant impact of these efforts to build parent community within schools. Moreover, our prior research illustrates the importance of the professionals who assist teachers in their work to build parent communities within schools (Csók & Pusztai, 2022). Future work can further explore the concept of collaborating with the community in the Hungarian context.

Development of an educational board game to foster partnership-oriented attitudes toward parental involvement

Numerous international studies emphasize the importance of parental involvement; however, in teacher training programs, this area is often addressed primarily from a theoretical perspective. Teacher trainees have relatively few opportunities to gain practical experience with the complex situations involved in communicating and collaborating with parents (Jones et al., 2025; Monfrance et al., 2025; Pedditzi et al., 2021; Sheldon & Jung 2015).

Therefore, we hoped to create an educational board game that supports experiential learning for teachers and student teachers in professional situations involving parental involvement. In designing the K.Ö.SZ.I. board game (the acronym meaning "Thanks"), the research team drew upon the international literature on parental involvement as well as various models of family-school partnership (Epstein, 2010; Smit et al., 2007; Pusztai et al., 2024a). Additionally, we took into account international and domestic research findings on the educational use of cooperative games (Brydges & Dembinski, 2019; Frossard et al., 2012; Karbownik et al., 2016; Viray, 2016).

We believed that a simulation-based learning environment could provide participants with the opportunity to examine complex pedagogical dilemmas and test different solution strategies in a safe, risk-free setting. Board games can influence students' attitudes and behavior in line with pedagogical goals, thereby contributing significantly to the learning process (Cosimini & Collins, 2023).

The board game we developed is based on cooperation, in which participants work together to solve problems that arise during the game. Figure 1 illustrates the flow of the game and the methodological considerations associated with its various elements. Players are assigned characters representing various school stakeholders, each with different competencies and resources. These stakeholder roles model the different perspectives within the school organization and encourage players to consider multiple viewpoints during decision-making (Kocsis et al., 2025; Kocsis et al., 2024).

The central elements of the gameplay are the "challenge cards", which depict realistic school situations related to the topic of parental involvement. These challenge cards present various situations such as difficulties in communication, challenges maintaining relationships, and differing expectations. While solving the challenge cards, participants must work together to develop strategies, make decisions, and discuss the possible

consequences of their strategies. The gameplay thus not only serves to convey information but also supports reflection, collaboration, and professional dialogue (Kocsis et al., 2024).

Figure 1. The process of the board game and its methodological embedding



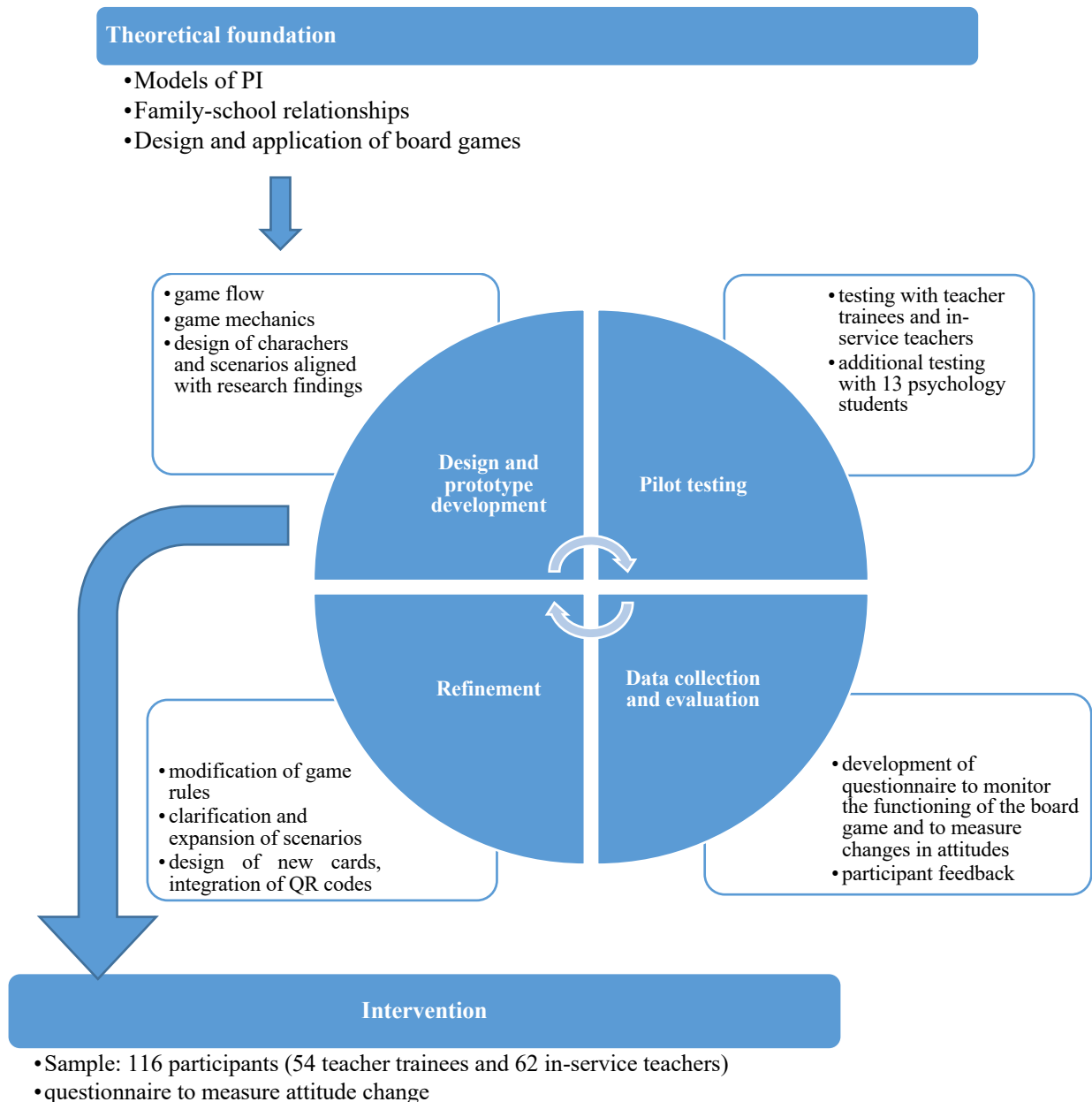
The game was developed through an iterative design process. Figure 2 illustrates the iterative design and evaluation cycle used during the development of the board game, integrating both design-based research principles and mixed-methods evaluation. Following the initial concept development, several prototypes were created. The development team and the research group collected continuous feedback on the game's functionality over the various prototypes. During the testing phases, we paid particular attention to the clarity of the game rules, the balance of the cooperative mechanics, and the realism of the situations. Based on participant feedback, several modifications were made to the game elements and the wording of the tasks to ensure that the game is both motivating and pedagogically relevant.

During the development process, we evaluated the game's suitability as a learning tool through an empirical study. This research aimed to explore how participants evaluated the game and how it contributed to the formation of their knowledge and attitudes regarding parental involvement. Two parallel studies were conducted during the testing phase. The first study aimed to monitor the functionality of the board game using a short questionnaire completed by players immediately after testing the game. The second study aimed to measure changes in attitude. Players completed a questionnaire we developed to measure attitude change, before and after playing the board game. The latter data collection was part of the impact assessment.

The first questionnaire, designed to monitor the board game's effectiveness, included Likert-scale questions regarding the game's educational value, enjoyment, and relevance. In addition, we used open-ended

questions to allow participants to elaborate on their experiences and impressions in greater detail (Kocsis et al., 2024). When analyzing the responses to the open-ended questions, we created categories that captured recurring themes in the answers, such as the cooperative nature of the gameplay, the realism of the situations, the support for the learning process, or the role of emotional engagement. Overall, participants rated the game positively. In particular, they highlighted cooperative gameplay, realistic situations, and the opportunity for collaborative thinking as important learning elements. The feedback suggests that the game may help refine pre-service teachers' perspectives on parental involvement and help them understand the viewpoints of different stakeholders (Kocsis et al. 2024; 2025).

Figure 2. Iterative Design and Evaluation Process of the Educational Board Game



To measure changes in attitude, we used a self-developed questionnaire consisting of five main sections. The first section included an information sheet and a consent form, ensuring voluntary and anonymous participation. In the second section, respondents created an anonymous identification code, which allowed the data to be linked without personal identification. The third section included demographic questions as well as an open-ended question about impressions of parents. This was followed by questions regarding the respondents' field of study, their knowledge of parental involvement, and their preparedness to implement parental involvement practices. The next section measured attitudes toward parental involvement across various dimensions. The

questions aimed to determine to what extent respondents viewed supporting parents in various pedagogical situations as part of their role and to assess the importance they attributed to parental involvement in school practice. The items were rated on a 10-point Likert scale. The final section focused on the evaluation of teacher training, with particular attention to the extent to which respondents consider it necessary to incorporate training components addressing parental involvement.

A total of 116 participants (54 student teachers and 62 teachers) took part in the intervention, participating in facilitated play sessions lasting 70–100 minutes. Based on the anonymous identifier codes, we were able to match 31 participants who completed both pre- and post-tests.

In the combined pre- and post-test sample, 33.3% of participants were male and 66.7. The sample comprised 17 teacher trainees and 14 practicing teachers, resulting in a nearly balanced representation of both groups across the two measurement points.

The results indicate that the board game-based intervention led to positive attitudinal changes, particularly among practicing teachers. Participants were more likely to view parental involvement as a shared professional responsibility, and there was increased recognition of parents' roles in school processes and decision-making. Positive changes were also observed regarding PI in secondary education, although attitudes remained generally less supportive than in primary education. A more moderate shift in attitudes was observed among student teachers, suggesting that professional experience plays an important role in reflective learning within a playful environment.

Methodological contribution

From a methodological perspective, the development process demonstrates that educational board games can be effectively used in teacher training to model complex pedagogical situations. The choice of board games as a methodological tool was partly motivated by the fact that—unlike traditional, time- and resource-intensive training formats, such as accredited continuing education courses or workshops—they can be applied flexibly, reused multiple times, and are accessible to a broader target audience. This enables the more effective dissemination and scaling of pedagogical innovations.

Table 1. Phases of board game development, implementation, and dissemination in teacher education

Development phase	Pedagogical aim	Methodological solution	Measurement/ evaluation tools	Related publications
Board game design	Establishing the pedagogical conceptual framework of parental involvement	Synthesis of international and Hungarian literature	Literature review and synthesis	Kocsis et al., 2024; 2025a,b
	Ensuring the physical and didactic functionality of the game	Development of cards, game board, and rule system; alignment of visual and content elements	Prototype testing; revision based on feedback	
Data collection and impact assessment	Examining attitudes, knowledge, and preparedness related to parental involvement, as well as collecting opinions about the board game	Questionnaire-based data collection; combination of closed-ended and open-ended questions	Self-developed questionnaires	Fényes et al. (under review)
Implementation in an educational context	Integrating board game-based learning into teacher education practice	Development of a modular handbook	Handbook	Kocsis (Eds.), „GYAKORLAT TESZI A PARTNERSÉGET!” A szülői részvétel támogatása az oktatásban

One of the main contributions of this research and design program is the development of a board game that integrates our research findings, real-world practical situations, cooperative problem-solving, and reflective processing. The development process was accompanied by questionnaire-based data collection.

The pedagogical handbook developed in connection with the methodological development was specifically designed for multiple target groups (teacher candidates, practicing teachers, and instructors), and its modular structure allows it to be flexibly adapted to various training contexts. Each chapter of the volume contains a brief theoretical overview, review questions, practical exercises, and directly applicable methodological tools that support the integration of theory and practice. The primary goal of the handbook is to bridge the gap between theoretical approaches and pedagogical practice and to promote the conscious application of parental involvement.

Together, the board game and the handbook form a complex, multi-component methodological system that can be applied not only in teaching parental involvement but can also be adapted to other pedagogical areas requiring complex communication and collaboration.

Conclusion

Experts in the field agree that active communication between parents and the school, shared responsibility, and community involvement play a key role in effectively supporting a child's education. This approach goes beyond the traditional view that sees education solely as a two-way process between teacher and student, in which the role of parents is sidelined or overlooked. Research findings show that fostering closer collaboration and aligning educational goals has a positive impact on all stakeholders: students, teachers, other school staff, parents, the local community, and society as a whole (Bacsikai, 2020; Coleman, 1988; Desforges et al., 2003; Epstein, 2018; Jeynes, 2016; Killus & Paseka, 2020; Koltói et al., 2019; L. Ritók, 2009; Lannert & Szekszárdi, 2015, 2015; Nyitrai et al., 2019; Patakfalvi-Czirják et al., 2018; Podráczy, 2012; Pusztai, 2024). Developing these collaborations require ample opportunities for interaction between the community, the parents, the

teachers, as well as school staff, in both formal and informal settings (Csók & Pusztai, 2022; Epstein, 1990, 2018; Pusztai et al., 2024b). It is also important to build relationships based on trust, adopt a truly collaborative approach, work together for the benefit of the child (as a shared goal), and share responsibility (Bacsikai, 2020; Ceglédi et al., 2024; Killus & Paseka, 2020; Koltói et al., 2019; Lannert & Szekszárdi, 2015; Podráczky, 2012; Pusztai et al., 2025a).

Overall, the findings of the MTA-DE-PARTNERED project are consistent with findings from international literature indicating that the school plays a key role in the community-school-parent relationship, particularly in taking the first steps toward parents. Schools, in the relative positions of power, must share the necessary knowledge and empowerment to implement effective family-school-community partnerships. Partnerships are successful when goals are jointly defined in the best interest of the child. Essential to this are adequate infrastructural resources at the institutional, local, and societal levels, as well as human resources, for which the development of teacher training is indispensable (Bacsikai, 2020; Desforges et al., 2003; Epstein, 1990; Jeynes, 2005b; L. Ritók, 2009; Pusztai et al., 2025a; Pusztai et al., 2024b). Therefore, this board game based on research findings enables educators and students to expand their knowledge of family-school partnerships, develop related attitudes, and strengthen the competencies necessary for cooperation. The advantage of the developed board game is that it can be used flexibly, reused multiple times, and compared to traditional training methods, supports the development of a partnership-oriented approach in teacher training in a more widespread and engaging manner.

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Research Paper

Pathway to academic well-being: The role of institutional social capital in the well-being of academics in five Central and Eastern European countries

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Abstract

This study examined the relationship between institutional social capital and the emotional well-being of academics in Central and Eastern European higher education systems. Building on Pusztaï's conceptual framework, this study distinguishes between intragenerational social capital, referring to collegial cooperation and communicative exchange, and intergenerational social capital, referring to informal interaction with students beyond formal teaching. The analysis draws on survey data collected in 2023 from academics in five countries (Hungary, Romania, Slovakia, Serbia, and Ukraine) ($N \approx 800$). Institutional social capital is operationalised through indicators capturing the frequency and diversity of interactions, while emotional well-being is measured using Warr's Affective Well-being Scale. The results show that intragenerational social capital is a significant positive predictor of well-being, whereas intergenerational social capital has no independent effect. The findings suggest that collegial relational embeddedness constitutes a relevant, albeit limited, resource for emotional well-being in academic work.

Keywords: academic well-being; institutional social capital; intragenerational and intergenerational relationships; higher education; Central and Eastern Europe

Introduction

Academic well-being has emerged as a significant concern in higher education research, particularly given the intensifying pressures associated with contemporary university work environments that faculty members face. Academics operate within increasingly complex institutional contexts marked by growing administrative demands, research productivity pressure, and evolving student expectations (Li, 2018; Mathey et al., 2024). In this context, social relationships embedded in the university workplace represent a potentially vital yet underexplored resource for sustaining academic emotional well-being. While considerable attention has been devoted to students' social integration and its effects on persistence and well-being, comparatively little research has examined how academics' institutional social relationships shape their affective states.

Existing scholarship on academics' well-being has focused on institutional support structures, organizational climate, and the availability of collegial support (Kinman & Wray, 2013; Vigoda-Gadot & Talmud, 2010). These studies consistently demonstrate that positive social environments within the university—particularly supportive relationships with colleagues—act as a buffer against occupational stress and contribute positively to the well-being of academic staff. However, much of this work conceptualises social support primarily in terms of emotional or instrumental assistance provided by peers and supervisors, while

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leaving the broader network of social relationships that academics cultivate in their day-to-day professional lives—including, crucially, their interactions with students—relatively unexamined. The relationship between academics and students is constitutive of academic life; however, its significance for academics' well-being has rarely been studied directly.

Research conducted specifically in Central and Eastern European (CEE) higher education has begun to document the regional dynamics of academic well-being. A qualitative study drawing on focus group interviews with academics from five CEE countries (Hungary, Slovakia, Ukraine, Romania, and Serbia) found that interpersonal relationships and institutional trust are among the most important workplace resources for well-being, while performance-based evaluation systems—increasingly prevalent across the region—were found to exert negative pressure on collegial ties by generating competition and mutual mistrust (Kovács et al., 2024). A subsequent quantitative study using the same five-country dataset (N = 821) confirmed that emotional exhaustion is the strongest negative predictor of affective well-being among CEE academics, while work engagement and management support function as key positive predictors; Romanian academics scored consistently higher on well-being than their counterparts in other countries (Kovács, Borbély, et al., 2025). Managerial and peer support also exert a positive influence on well-being through work engagement (Kovács, Bălătescu, et al., 2025). Similar indirect relationships were identified by Mudrak et al. (2018) in their study conducted among Czech academics. Their findings suggest that resources such as influence over one's work and support from institutional leadership are positively associated with work engagement and job satisfaction. Within the examined model, work engagement emerged as the strongest predictor of well-being, whereas job-related demands (e.g., quantitative demands, work–life conflict, and job insecurity) were primarily associated with stress (Mudrak et al., 2018). Furthermore, among Slovak academics, the lack of managerial support has been shown to reduce psychological well-being (Michulek et al., 2024). These findings establish that in the CEE context the quality of social relationships within the university—with colleagues, with management, and with students—constitutes a central determinant of academic well-being, yet the specific role of structured institutional social capital as a predictor of affective well-being has not been systematically examined.

Building on Pusztaï's (2015, 2019) interpretation of institutional social capital in higher education, we adopt a two-dimensional framework that distinguishes between intragenerational social capital—referring to the frequency and depth of cooperation and communication among academic colleagues—and intergenerational social capital—referring to the quality and frequency of academics' interactions with students beyond formal instructional contexts. While Pusztaï originally developed this framework to understand the determinants of student persistence, the underlying logic applies with equal force to academics: meaningful, repeated social exchanges within the institution generate shared norms, trust, and a sense of belonging that may sustain emotional well-being. In our research, these two dimensions of institutional social capital were operationalised using scales adapted from Pusztaï's (2015) student research instrument, modified to reflect the academic workplace context.

Our study draws on survey data collected in 2023 from academics in five CEE countries (Hungary, Romania, Slovakia, Serbia, and Ukraine), allowing us to examine the cross-national variation in both forms of institutional social capital and their relationship with academics' affective well-being. The CEE regional context is particularly relevant, given that universities in this region have undergone substantial transformation since the Bologna reforms, exposing academic staff to a distinctive combination of legacy institutional cultures and new performance pressures (Curaj et al., 2018). The affective dimension of subjective well-being was measured using Warr's (1996) Affective Well-being Scale, which assesses the balance of positive and negative emotions experienced at work. Two novel aspects distinguish our study from prior research: first, we examine the role of academics' relationships with students, a dimension largely absent from existing studies on academic well-being; second, for collegial relationships, we measure not the level of social support received but the frequency and diversity of collaboration and intellectual exchange, capturing a more active and generative dimension of institutional social capital.

Theoretical background

The concept of social capital provides a theoretical foundation for our study. As Coleman (1990) argued, social capital resides not within individuals but in the structure of relationships among them. Unlike physical or human capital, social capital enables individuals to gain access to resources, including information, trust, shared norms, and mutual obligations, that are embedded in social ties and facilitate goal-oriented action. In educational settings, Pusztaï (2015) extended this framework to university contexts, demonstrating that the density and

quality of social ties within the institution—both among peers and between students and staff—function as social capital that sustains academic engagement and reduces the likelihood of students' dropout. Empirical research in educational organisations further confirms that internal social capital among colleagues—characterised by trust-based cooperation and shared professional norms—constitutes a significant predictor of collective and individual performance outcomes (Leana & Pil, 2006). In our research, we transpose this logic to the academic workforce: the social ties that academics maintain within their institution—with colleagues and students—constitute a form of institutional social capital that may similarly serve as a resource for well-being. In contrast to James S. Coleman's functionalist emphasis on social capital as a resource embedded in relational structures that facilitates action, Pierre Bourdieu (1986) understands social capital to be the aggregate of actual or potential resources linked to durable networks of institutionalised relationships, whose value is contingent upon their convertibility into other forms of capital and their positioning within structured fields of power.

Pusztai's (2015, 2019) framework distinguishes two analytically separate dimensions of institutional social capital in higher education: intragenerational ties (relationships among peers of the same generational position, such as colleagues or fellow students) and intergenerational ties (relationships crossing generational boundaries, such as between students and faculty members). For academics, we conceptualise intragenerational social capital as the frequency and diversity of cooperative and communicative exchanges with fellow academic staff—co-authorship, collaborative teaching, research discussions, and informal professional interactions. Conversely, intergenerational social capital refers to the quality and regularity of academics' interactions with students beyond formal instructional settings, such as discussing students' personal and professional plans, providing informal academic guidance, or engaging students in research activities. Both dimensions are expected to contribute to a sense of institutional belonging, mutual recognition, and purpose—psychological resources that the literature consistently links to well-being (Li, 2018; Vigoda-Gadot & Talmud, 2010). The sense of group belonging and shared professional identity generated by sustained collegial interaction constitutes a recognised pathway to psychological well-being, acting through mechanisms of mutual support, social control, and the reinforcement of purpose and meaning (Haslam et al., 2009; Thoits, 2011).

Turning to well-being, we measured academics' affective well-being using Warr's (1996) scale, which captures the balance of positive emotions (such as enthusiasm, contentment, and calm) against negative emotions (such as worry, tension, and depression) experienced in the recent past. This affective dimension of well-being has been widely adopted in occupational health research and is particularly suited to capture the emotional consequences of the quality of workplace social environments. Longitudinal validation of Warr's scale has confirmed its four-factor structure—capturing anxiety, comfort, depression, and enthusiasm—as a reliable and stable measure of job-related affective states across occupational contexts (Mäkikangas et al., 2007). Kinman and Wray (2013) demonstrated that peer support in academia acts as a protective factor, alleviating occupational stress, while Vigoda-Gadot and Talmud (2010) showed that positive collegial relationships moderate the negative effects of organisational politics on job outcomes. More broadly, systematic reviews of the academic burnout literature document that work-related sources of social support are particularly closely associated with emotional exhaustion, the most prevalent dimension of occupational strain in higher education settings (Halbesleben, 2006; Watts & Robertson, 2011). Mathey et al. (2024) further confirmed that the formation and leveraging of social capital in professional careers is closely tied to subjective evaluations of career and personal well-being. The job demands–resources model offers a complementary theoretical lens: collegial relationships and cooperative networks constitute job resources that buffer against demands and sustain engagement and well-being in educational workplaces (Bakker & Demerouti, 2007; Hakanen et al., 2006). Crucially, qualitative studies conducted directly within the academic context lend additional support to this mechanism. Garbett and Thomas (2020) showed that inter-collegial friendships—characterised by mutual recognition, intellectual exchange, and shared professional challenges—are not peripheral to academic life but central to sustaining well-being in the face of institutional demands. Their work highlights how collaborative relationships with peers provide emotional affirmation, buffer against the constant pressure of evaluation, and help academics maintain a sense of professional identity and purpose. Similarly, de Villiers Scheepers et al. (2023) found that purposeful collegial groups create a therapeutic and safe space that mitigates burnout risks, particularly during periods of institutional disruption. More broadly, Keshavarzi et al. (2023), in a qualitative study of faculty members across medical universities, identified organisational identification—grounded in interpersonal trust, a sense of group belonging, and shared academic discourse—as a key condition for building social capital; their findings underscore that both empowerment through collegial interaction and institutional support for collective activities are necessary for social capital to translate into organisational and individual well-being. Aharonian (2024) extended this insight to writing communities, demonstrating that structured peer

collaboration fosters both agency and well-being among teacher educators. The structural context of Central and Eastern European universities is particularly salient here: post-Bologna reforms have intensified workloads and accelerated the pace of academic life, creating conditions in which the boundary between professional and personal time becomes increasingly blurred and in which relational resources acquire heightened importance for sustaining well-being (Dobbins & Knill, 2009; Ylijoki, 2013). Taken together, these findings suggest that the richness and reciprocity of workplace relationships translate into positive affective states—a process we expect to be observable among academics in the CEE universities of our study, notwithstanding the specific institutional pressures of the regional context.

The most important question of our research concerns the relationship between the two forms of institutional social capital and academics' well-being, controlling for the role of demographic and workplace characteristics. A secondary question addresses cross-national and cross-group differences in both dimensions of social capital, which were examined previously in a companion study (Kovács, Bălăţescu, et al., 2025). On the basis of the theoretical arguments above, we formulate the following hypotheses:

- H1: Intragenerational social capital (frequency and diversity of cooperation with academic colleagues) is positively associated with the emotional well-being of academics in the CEE region under investigation.
- H2: Intergenerational social capital (frequency and quality of interaction with students outside formal teaching) is positively associated with the emotional well-being of academics in the CEE region under investigation.

Methodology

Data collection

The hypotheses were tested using data from the CEETHE 2023 survey. Our detailed questionnaire survey examined the factors that characterise academics' teaching and research work, working conditions, workplace outcomes, health, lifestyle, and institutional, family, and social backgrounds (over 300 items). The questionnaire was translated into Serbian, Slovakian, Ukrainian, and Romanian and sent, with the permission of the head of the institution, two or three times via the university's online learning system to all teachers of the institutions surveyed in the spring of 2023. Data were collected from higher education establishments in two disadvantaged regions in Hungary, the Northern Great Plains Region (the University of Debrecen, the Debrecen Reformed Theological University, and the University of Nyíregyháza) and the Southern Transdanubia Region (the University of Pécs). When examining cross-border institutions in Slovakia, Ukraine, Romania, and Serbia, we targeted minority Hungarian institutions and sent out the survey in the language of the majority.

Participants

The average age of the respondents was 46 (SD = 10.71), and the average amount of years worked in higher education was 17 (SD = 11) years. All the important demographic and work-related characteristics of the sample are summarized in Table 1.

Table 1. Demographic Background and Work-Related Characteristics of the Sample

Variable	Value	Percentage	N
Country	Hungary	62.8	514
	Ukraine	14.1	115
	Romania	13.8	113
	Serbia	4.9	40
	Slovakia	4.4	30
Gender	Male	43.7	351
	Female	56.3	452
Age	<29	5.4	43
	30–39	24.2	193
	40–49	35.2	280
	50–59	23.2	185
	60–69	10.3	82
	>70	1.6	13
Academic degree	I do not have	21.1	173
	PhD/DLA	44.6	365
	Candidate of Science (CSc)	5.7	47
	Habilitated doctor	17.1	140
	Doctor of Science (DSc)	11.4	93
Discipline	Humanities and arts	32.4	264
	STEM and agriculture	23.1	188
	Medicine, health and sport	27.9	227
	Society and economy	16.7	136
Position	Senior lecturer or lower	58.8	483
	Associate professor or higher	41.2	338
Leader position	No	69.3	569
	Yes	30.7	252

Note. Source: CEETHE 2023.

Measurements and variables

In order to measure well-being, Warr's (1996) Affective Well-being Scale was used; we asked teachers how often they felt various positive and negative emotions in the last few weeks (Cronbach's $\alpha = 0.879$, KMO = 0.908, $p \leq 0.001$, explained variance = 75.773%, $M = 59.75$, $SD = 18.89$, $N = 797$).

Based on Pusztai's previous works (2015), institutional social capital was measured in two dimensions. The statements were adapted to the academic context. In the first question block, the frequency of different types and topics of conversations were asked with students (6 items, Cronbach's $\alpha = 0.784$, KMO = 0.792, $p \leq 0.001$, explained variance = 49.289%, $M = 55.14$, $SD = 18.7$, $N = 807$), in the second block the frequency of types of different collaboration with the colleagues (8 items, Cronbach's $\alpha = 0.832$, KMO = 0.830, $p \leq 0.001$, explained variance = 59.935%, $M = 57.6$, $SD = 18.97$, $N = 795$). Because the scales utilised different values (1–5, 1–7), to standardise the values, the factor and component scores were recoded into a 0–100 degree scale, in which 0 represented if the main component was not at all characteristic of the respondent, and 100 if it was completely typical of the respondent.

The demographic background variables we viewed are age, gender, and country of origin; among the work characteristics, those variables are academic degree, workplace position, leader position, and academic field of expertise.

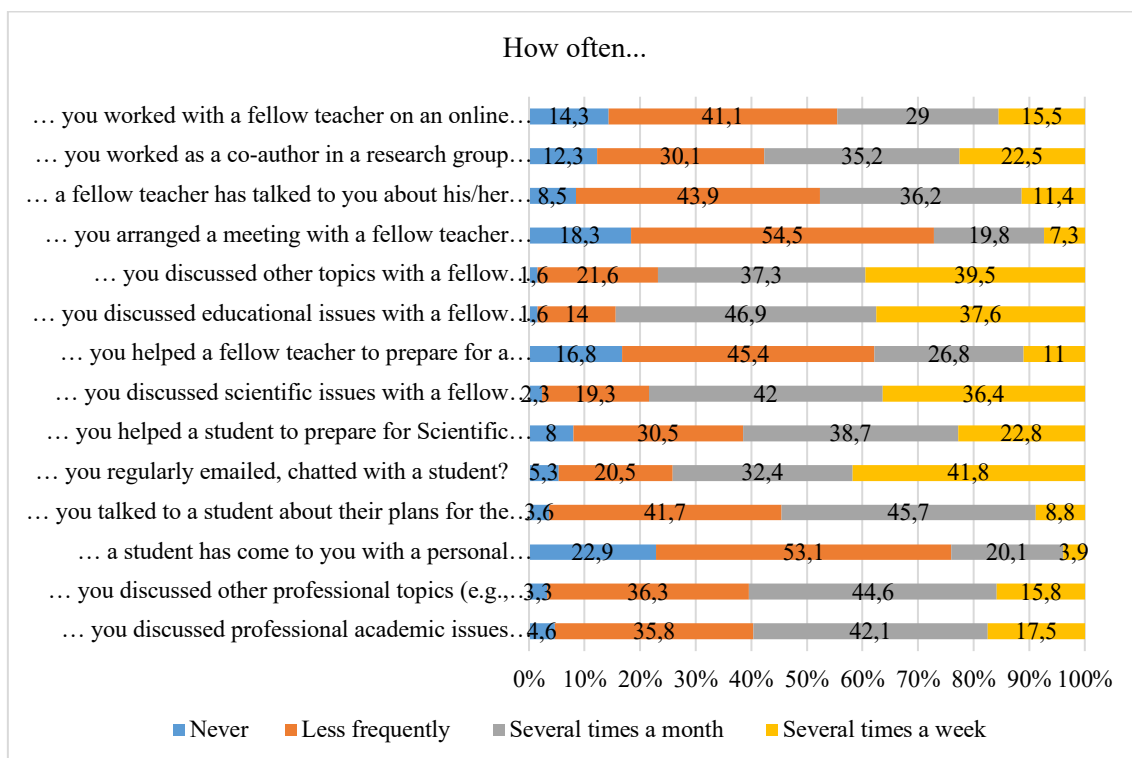
Results

Related to intergenerational social capital academics in our sample, the highest proportion emailed and chatted with a student more times a week (41.8%) or helped a student prepare for Scientific Students' Associations, a

talent management program (22.8%), while 8% never did that. In addition, 45.7% of the respondents talked to a student about their plans for the future, and 44.6% discussed other professional topics (e.g. research) with a student outside the course several times a month. While 53.1% of the academics said that students came to them with personal problems less frequently than several times a month, 21% indicated that it never happened. 4.6% never discussed professional academic issues with students outside class.

Almost 40% of the academics discussed scientific issues (36.4%), educational issues (37.6%), or other issues not related to academic work (39.5%) with a fellow teacher several times a week. Of the respondents, 54.5% arranged a meeting with a fellow teacher outside of work, 45.4% helped a fellow teacher prepare for a doctorate, habilitation, or tender, and 43.9% reported that a fellow teacher had talked to an academic staff member about his/her plans for the future less frequently than several times a month. Almost one-fifth of the academics never helped to prepare for a doctorate or arranged a meeting with a fellow teacher, 12.3% never worked as a co-author in a research group, 14.3% never worked online with a fellow teacher, and 41.1% worked less frequently several times a month (Figure 1).

Figure 1. Frequency of Responses to Items on Institutional Social Capital



Note. Source: CEETHE 2023 (N = 812–819).

Significant differences were found in five variables within the intergenerational social capital component. In terms of demographics, Ukrainian and female academics were found to be the most likely to maintain close contact and cooperation with students, while Serbian academics were found to be the least likely to do so. In terms of academic qualifications, those without a degree achieved the lowest average score in the overall indicator, while those with a CSc degree or habilitated doctors achieved the highest. Academics in higher positions reported closer relationships than their colleagues in lower positions did. Academics working in the humanities, arts, and social sciences achieved higher scores than those working in medicine, health, and sports science. (Table 2).

Table 2. Differences in the Component of Intergenerational Social Capital by Demographic and Work Characteristics (Means and SDs)

Background variable		Mean	SD	F	p	N
Gender	Male	52.87	18.91	8.596	0.003	790
	Female	56.8	18.52			
Country	Hungary	53.55	19.72	7.262	<0.001	804
	Ukraine	62.57	15.91			
	Romania	57.7	16.54			
	Serbia	49.07	14.31			
	Slovakia	53.67	14.98			
Academic degree	None	50.35	19.31	5.782	<0.001	803
	PhD/DLA	54.75	18.54			
	CSc	60.96	16.02			
	Habilitated doctor	58.81	18.97			
	DSc	57.74	16.99			
Position	Assistant professor or lower	52.56	18.97	21.846	<0.001	806
	Associate professor or higher	58.76	17.73			
Discipline	Humanities and arts	58.86	17.13	10.691	<0.001	800
	STEM and agriculture	53.47	18.57			
	Medicine, health and sport	50.12	20.61			
	Society and economy	57.98	18.68			

Note. Source: CEETHE 2023.

Examining intragenerational social capital reveals that younger academics have closer relationships with their colleagues and that the frequency of collaboration decreases with age. Slovakian academics cooperate most frequently, and Serbian and Romanian academics cooperate least frequently. Although small, we found a significant difference in the total intragenerational social capital component according to the academic degree. Habilitated doctors and those with a DSc degree achieved the highest scores, while those with a CSc degree and academics without an academic degree achieved the lowest scores. Those in leadership positions achieved above-average results compared to academics without leadership positions (see Table 3).

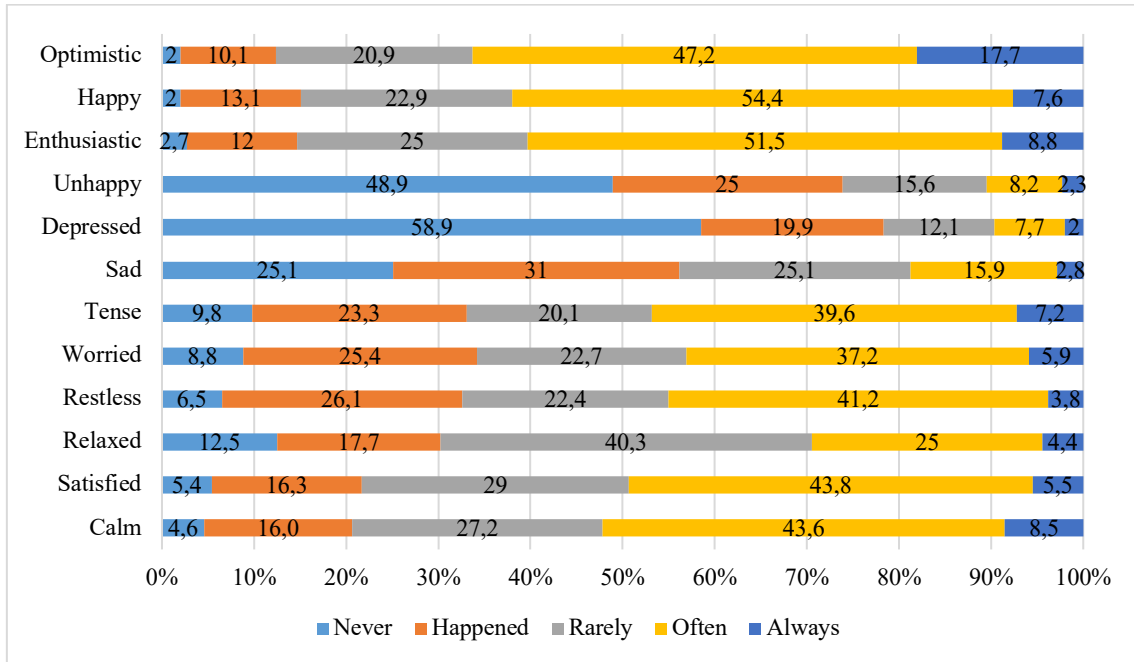
Table 3. Differences in the Component of Intragenerational Social Capital by Demographic and Work Characteristics (Means and SDs)

Background variable		Mean	SD	F	p	N
Age	<29	65.15	20.09	3.286	0.006	769
	30–39	60.7	18.53			
	40–49	55.57	18.23			
	50–59	56.56	19			
	60–69	56.64	19.73			
	>70	53.65	22.78			
Country	Hungary	58.61	19.53	5.645	<0.001	804
	Ukraine	59.9	17.01			
	Romania	50.98	17.85			
	Serbia	52.64	17.47			
	Slovakia	63.02	15.41			
Academic degree	None	55.54	19.46	4.166	0.002	803
	PhD/DLA	56.34	18.83			
	CSc	55.55	18.04			
	Habilitated doctor	62.11	17.88			
	DSc	62.52	19.6			
Leader position	No	56.36	19.16	3.027	0.005	806
	Yes	60.46	18.27			

Note. Source: CEETHE 2023.

The background of academics' emotional well-being

To examine the well-being of academics, we asked them how frequently they experienced various emotions over the past two weeks. More than half of the academics reported feeling happy and enthusiastic, and 47.2% felt optimistic. A total of 48.9% of the respondents stated that they had never felt unhappy, 58.9% had never felt depressed, and 25.1% had never felt sad. Only 12.5% of the participants reported feeling relaxed. One-quarter of the respondents rarely felt enthusiastic, and approximately one-third reported feeling satisfied and calm. Forty percent of academics rarely felt relaxed, and one-quarter reported feeling sad. Approximately one in four respondents indicated that they had felt worried, tense, restless, or unhappy during the past weeks, while one in five reported having felt depressed (Figure 2).

Figure 2. Frequency of Various Emotions Experienced by Academics Over the Past Few Weeks

Note. Source: CEETHE 2023 (N = 816–819).

There is a linear increase in academics' well-being with age; the youngest cohort reports the lowest levels of well-being, while the oldest group reports the highest. Romanian and Serbian teachers had the highest level of well-being, while Slovak teachers had the lowest. Those with a higher academic degree were characterised by higher well-being, followed by those with PhDs, and the lowest well-being was attributed to those with a CSc degree. Those in associate professor positions have higher levels of well-being than adjuncts or someone in a lower position. We could not find any significant connection to other demographic and workplace factors or teacher characteristics (Table 4).

Table 4. Differences of Demographic and Work Characteristic Natures in Wellbeing (Means and SDs)

Background variable		Mean	SD	Kruskal-Wallis H	p	N
Age	<29	56.29	19.12	23.857	<0.001	773
	30–39	56.79	20.43			
	40–49	58.24	18.03			
	50–59	63.71	18.13			
	60–69	62.98	18.24			
	>70	72.03	14.28			
Country	Hungary	59.11	19.75	10.248	0.036	794
	Ukraine	58.76	17.87			
	Romania	64.55	16.5			
	Serbia	60.31	19.11			
	Slovakia	56.96	14.88			
Academic degree	None	57.82	19.63	12.492	0.014	794
	PhD/DLA	59.16	19			
	CSc	55.89	18.3			
	Habilitated doctor	61.79	18.29			
	DSc	65.24	17.14			
Position	Assistant professor or lower	58.24	19.55	6.060	0.014	797
	Associate professor or higher	61.87	17.72			

Note. Source: CEETHE 2023.

Correlation analyses showed only a weak, significant correlation between intergenerational social capital and well-being (Spearman's $r = 0.079$, $p \leq 0.05$), while there was a stronger significant correlation between the two types of social capital (Spearman's $r = 0.370$, $p \leq 0.01$).

Linear regression analysis identified the key predictors of emotional well-being. Multicollinearity was checked, and the values of VIF and tolerance showed that there was no multicollinearity between the explanatory variables in any of the cases. Homoscedasticity was not compromised. The model explained 7.5% of the variance in well-being scores ($F(13, 722) = 4.523$, $p < 0.001$). Emotional well-being showed a significant relationship with four explanatory variables: intragenerational social capital—cooperation with colleagues—($\beta = 0.121$, $p = 0.003$, $CI[0.041; 0.200]$), age ($\beta = 0.220$, $p < 0.001$, $CI[0.241; 0.528]$), working in Romania compared to the reference country ($\beta = 0.112$, $p = 0.036$, $CI[0.399; 11.657]$), and working in medicine, health, or sport sciences ($\beta = 0.120$, $p = 0.011$, $CI[1.168; 8.945]$) predicted well-being positively. Thus, H1 is verified. Intergenerational social capital—interaction with students—was not a significant predictor ($\beta = 0.017$, $p = 0.678$), contrary to H2.

Discussion

This study examined the relationship between institutional social capital and academics' emotional well-being in higher education institutions across Central and Eastern Europe. By distinguishing between intragenerational and intergenerational relational embeddedness, this study contributes to theoretical debates on how social relations shape occupational outcomes in knowledge-intensive organisational settings. In doing so, it builds directly on Gabriella Pusztai's influential work on institutional social capital in higher education, which has significantly advanced the understanding of how relational embeddedness within universities structures

educational trajectories and organisational experiences. Her conceptualisation of intra- and intergenerational social capital provides a valuable analytical framework for examining not only student persistence but also the professional lives of academic staff members.

From a Colemanian perspective, social capital constitutes a structural resource embedded in patterns of interaction that facilitates purposive action by generating trust, shared norms, and access to information (Coleman, 1990). The present findings offer qualified support for this proposition in the following ways. Intragenerational social capital, reflected in collaboration, intellectual exchange, and informal professional interaction with colleagues, emerged as a modest but significant predictor of emotional well-being. Collegial networks thus appear to function as relational infrastructures that mitigate uncertainty and emotional strain within academic workplaces increasingly shaped by performance evaluation, administrative intensification and fragmented career trajectories. Through such interactions, academics may sustain a sense of professional belonging and collective identity, both of which are known to support psychological resilience (Kinman & Wray, 2013; Vigoda-Gadot & Talmud, 2010). This interpretation is also consistent with qualitative evidence showing that collegial relationships provide emotional validation and sustain professional identity in academic contexts (de Villiers Scheepers et al., 2023; Garbett & Thomas, 2020).

Simultaneously, the results can be interpreted through a Bourdieusian lens, which emphasises that social capital is unevenly distributed within fields structured by symbolic competition and institutional hierarchies (Bourdieu, 1986). Collegial cooperation is not only a source of emotional support but also a mechanism for positioning and resource accumulation. Academics embedded in dense collaborative networks may gain privileged access to research opportunities, reputational capital, and career advancement pathways, indirectly enhancing their subjective well-being. The positive association observed between age, academic rank, and well-being is consistent with this interpretation, suggesting that accumulated institutional capital and stabilised professional trajectories shape both relational embeddedness and emotional outcomes. In this respect, Pusztai's (2015, 2019) framework can be seen as bridging Coleman's functionalist view and Bourdieu's field-based perspective, by situating social capital within concrete institutional relational structures.

In contrast, intergenerational social capital—informal interaction with students—did not show an independent effect on well-being in the multivariate analysis. While pedagogical engagement is often portrayed as intrinsically meaningful, the findings indicate that student interaction does not necessarily function as a consistent emotional resource. Such interactions may simultaneously constitute both resources and demands. Mentoring relationships and intellectual exchange can foster professional fulfilment; however, high teaching loads, emotional labour, and time pressures associated with massified higher education may offset these benefits. While meaningful work and psychological resources have been shown to support well-being (Li, 2018), the formation and mobilisation of social capital are embedded in broader career and organisational dynamics (Mathey et al., 2024). In institutional contexts characterised by expanding student populations and limited organisational support, the relational rewards of teaching may therefore be constrained by structural workload conditions.

Moreover, the modest explanatory power of the regression model highlights the need to interpret academic well-being as a multilevel and multidimensional phenomenon shaped by the interplay of relational resources, organisational arrangements, and individual career trajectories. Institutional social capital represents only one component of a broader ecology of working conditions that includes job security, research autonomy, governance practices, and the availability of material and symbolic rewards. This interpretation is consistent with broader research on subjective well-being, which emphasises its complex and context-dependent nature (Diener et al., 1999; Pavot & Diener, 1993). The cross-national differences identified in the study further point to the significance of macro-institutional environments in shaping both the formation of social capital and its consequences for emotional well-being, particularly in the transforming higher education systems of Central and Eastern Europe (Curaj et al., 2018).

Taken together, the findings suggest that collegial relational embeddedness contributes to emotional sustainability in academic careers, but its effects are mediated by structural positioning within the institutional field and by the balance between occupational demands and available resources. This nuanced pattern reinforces sociological and organisational perspectives that treat social capital not as an inherently beneficial asset but as a context-dependent mechanism whose outcomes vary across organisational and career contexts. At the same time, extending Vincent Tinto's (1993, 2015) model of institutional integration, the results suggest that relational embeddedness operates differently for academic staff than for students, with collegial rather than student-related ties playing a more central role in shaping well-being.

Limitations and Future Research

Several limitations should be considered when interpreting the results of this study. First, the cross-sectional design limits the possibility of drawing causal conclusions regarding the relationship between institutional social capital and emotional well-being. Reverse causality remains plausible, as academics experiencing higher well-being may be more inclined to participate in collaborative networks. Longitudinal and panel-based research would be required to clarify these reciprocal dynamics.

Second, the operationalisation of institutional social capital focused primarily on the frequency and diversity of interactions, without capturing network structure, relational quality, or power asymmetries within academic organisations. Future research could employ social network analysis, qualitative inquiry, or mixed-method designs to better understand how different configurations of relational embeddedness influence occupational outcomes.

Third, the sample composition—including the strong representation of Hungarian institutions and minority-language academic environments, but mainly its nature of convenience—constrains the generalisability of the findings to the broader CEE higher education landscape. Comparative studies using balanced representative national samples and multilevel modelling approaches would help disentangle individual-, institutional-, and country-level effects.

Finally, the relatively low proportion of explained variance indicates that important determinants of academic well-being were not included in our specification. Future studies should integrate variables related to workload intensity, job insecurity, organisational justice, research funding conditions, leadership styles, and work–life balance, as well as psychological resources such as professional identity, coping strategies, and career expectations. Such integrative frameworks would contribute to a more comprehensive understanding of the structural and relational foundations of sustainable academic careers.

Conclusions

This study contributes to the growing literature on academic well-being by demonstrating that institutional social capital constitutes a relevant, though not dominant, factor shaping the emotional experiences of academics in CEE higher education systems. Specifically, collegial collaboration emerged as a meaningful predictor of well-being, highlighting the importance of professional communities and cooperative academic cultures in sustaining emotional resilience. In contrast, informal interaction with students does not appear to have an independent effect, suggesting that pedagogical engagement alone is insufficient to offset the structural pressures associated with contemporary academic work.

These findings have important implications for higher education policy and institutional management. Universities seeking to improve staff well-being should prioritise organizational conditions that facilitate collegial cooperation, such as interdisciplinary research groups, mentoring schemes, and spaces for informal intellectual exchange. Strengthening institutional cultures of trust and collaboration may be particularly valuable in post-transition academic systems, where competitive funding regimes and performance evaluation mechanisms weaken social cohesion.

Simultaneously, the modest explanatory power of social capital variables underscores the need for holistic approaches to academic well-being. Institutional reforms aimed at reducing administrative burdens, ensuring transparent career progression, and supporting work–life balance are likely to have a greater impact than isolated relational interventions. Therefore, future research should adopt longitudinal and multilevel designs to examine how social capital interacts with organisational structures and individual psychological resources over time.

In summary, the study highlights that the emotional sustainability of academic careers in the CEE region depends not only on individual resilience but also on the relational architecture of universities. Strengthening collegial ties represents a promising pathway to improving well-being; however, it must be embedded within broader institutional strategies that address the structural challenges of contemporary higher education

Ethics, Data Availability and Conflict of Interest: The study is based on data from the CEETHE 2023 survey. Participation in the survey was voluntary and anonymous. The data used in this study are not publicly available. The authors declare no conflict of interest.

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Research Paper

Resource or risk? The role of higher education parental involvement in students' future-aware work ethic

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Abstract

One of the key determinants of higher education students' academic progress is future-oriented work ethic, which can be reflected in persistence in pursuing long-term goals, goal-directed effort, and disciplined work practices. The aim of this study is to examine how different patterns of parental involvement in higher education are associated with students' future-aware work ethic and how these forms of involvement function as either resources or risk factors in its development. The analysis is based on a secondary examination of data from the 2023–2024 survey of the MTA–DE Public Education Development Research Program (N = 1,336), conducted among higher education students in Hungary and Hungarian minority regions of the Carpathian Basin. To identify patterns of parental involvement, cluster analysis was applied, followed by an examination of the relationship between the identified clusters and the studied attitude using analysis of variance and two-step linear regression models. The findings indicate that parental involvement does not exert a uniform effect on students' future-oriented work ethic. Students with highly involved parental backgrounds are characterized by significantly higher levels of future-oriented work ethic, and this association remains robust even after controlling for socio-demographic background variables. In contrast, ambivalent parental involvement shows a consistently negative relationship with the examined attitude. The effect of low parental involvement weakens when background factors are taken into account, suggesting a mediating role of social background. Overall, the results highlight that the quality and patterns of parental involvement play a decisive role in shaping this form of work ethic: supportive and consistent parental engagement can be interpreted as a resource, whereas ambivalent involvement constitutes a risk factor.

Keywords: higher education; parental involvement; work ethic; future awareness

Introduction

The issue of persistence in higher education and successful degree completion has become a central topic in educational research over the past decades. Alongside the massification of higher education systems, student populations within institutions have become increasingly heterogeneous, creating new challenges for interpreting academic progression and dropout (Pusztai, 2011; Pusztai et al., 2019; Kocsis & Pusztai, 2020;

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Pusztai & Szigeti, 2021; Pusztai et al., 2022). Student trajectories are becoming less and less describable as linear pathways: programme interruption, temporary withdrawal, changes of major, and prolonged time to degree are all phenomena that complicate traditional understandings of success in higher education (Hagedorn, 2012; Tóth et al., 2019; Pusztai & Szigeti, 2021; Csók & Pusztai, 2023).

Research on persistence and dropout has therefore moved beyond the mere factual description of leaving higher education and is now interpreted as a complex, multifactorial process in which individual characteristics, institutional experiences, and the social environment all play a role (Tinto, 1993; Heublein, 2014; Dinyáné & Pusztai, 2017; Bocsi et al., 2019; Váradi et al., 2019; Ceglédi et al., 2022; Kocsis et al., 2022). Studies have shown that students' academic trajectories are shaped not only by their current higher education experiences but also significantly influenced by prior socialization processes and family background (Pusztai, 2011; Bocsi et al., 2019; Pusztai et al., 2024; 2025). Within this framework, parental involvement as an intergenerational resource deserves particular attention (Csók & Pusztai, 2023; Dan, 2023; Major, 2023; Pusztai et al., 2024; 2025).

The role of parental involvement in higher education, however, appears in a contradictory manner in the literature. While some approaches interpret parental support as an important factor of student success, others draw attention to the potential negative consequences of excessive involvement, particularly in relation to student autonomy and independent decision-making (Cutrona et al., 1994; Garrett, 2015; Wartman & Savage, 2015; Whaley & Pfefferbaum, 2023; Kocsis et al., 2025; Pusztai et al., 2024; 2025). A distinctive feature of higher education is that students, due to their life stage, are already in the process of becoming independent, yet they may still rely to a considerable extent on family resources. This duality makes a differentiated examination of parental involvement particularly warranted (Cutrona et al., 1994; Kiyama et al., 2015; Lowe, 2015; Pusztai et al., 2024; 2025).

Recent research increasingly suggests that parental involvement is not a uniform phenomenon but manifests in different forms and intensities, which exert differential effects on students' academic trajectories (Perna & Titus, 2005; Wartman & Savage, 2015; Pusztai et al., 2024; 2025). Supportive parental engagement that fosters autonomy may contribute to persistence in studies and the maintenance of long-term goals, whereas ambivalent or overly controlling involvement can generate uncertainty in individual decision-making (Wartman & Savage, 2015; Bacskai et al., 2024; Kocsis et al., 2025). Accordingly, the examination of the effects of parental involvement cannot be separated from its qualitative characteristics (Pomerantz et al., 2007; Csók & Pusztai, 2023; Bacskai et al., 2024; Rusznák & Pusztai, 2024; Pusztai et al., 2024; 2025).

At the same time, empirical research examining the relationship between parental involvement and future-oriented work ethic remains limited, particularly within the Central and Eastern European higher education context (Pusztai, 2026). The aim of this study is to explore how different patterns of parental involvement are associated with higher education students' future-oriented work ethic, and how these patterns can be interpreted as either resources or risk factors in terms of academic progression. The study contributes to a more differentiated understanding of the role of parental involvement in higher education, as well as to a more precise identification of factors that support student success.

Theoretical Background

Student integration models constitute a key theoretical starting point for explaining academic progression in higher education. According to Tinto's classic framework, the likelihood of persistence increases with the strengthening of academic and social integration, whereas weak institutional attachment leads toward withdrawal (Tinto, 1975; 1993; Pusztai, 2011; Pusztai & Szigeti, 2021). Subsequent integrative approaches conceptualize dropout as a complex, cumulative risk process in which students' individual resources and environmental supports jointly shape academic trajectories (Heublein, 2014; Pusztai et al., 2024; 2025). Within this interpretive framework, the examination of parental involvement is also situated as an intergenerational resource in higher education progression. Family and parental relationships influence not only access to higher education but also persistence, academic advancement, and the maintenance of future-oriented goals, particularly in massified systems characterized by increasingly heterogeneous student populations (Perna & Titus, 2005; Wolf et al., 2009; Wartman & Savage, 2015; Pusztai et al., 2024; 2025). In this sense, student progression cannot be understood solely as the outcome of current institutional experiences but rather as a temporally extended sequence of future-oriented decisions, in which the interpretation of short-term academic demands and difficulties is closely linked to long-term goal formation and persistence in studies (Tinto, 1993; Hagedorn, 2012; Pusztai et al., 2024; 2025).

At the same time, when interpreting academic progression and dropout in higher education, it is important to emphasize that student trajectories cannot be described in dichotomous terms; rather, a range of intermediate states can be observed between successful degree completion and definitive withdrawal (Hagedorn, 2012; Tóth et al., 2019; Pusztai & Szigeti, 2021; Pusztai et al., 2022). Students' academic careers can thus be understood as dynamic processes, in which they continuously navigate decision-making situations, drawing on their everyday experiences and interactions when choosing between persistence and withdrawal. Accordingly, dropout should not be interpreted as the result of a single decision, but rather as a prolonged process marked by uncertainty (Tinto, 1993; Bocsi et al., 2019; Dinyáné Szabó et al., 2019; Kovács et al., 2019; Pusztai & Szigeti, 2021).

In interpreting this dynamic process, students' network-based resources and processes of institutional embeddedness play a central role. Research has shown that the structure of relationships, the strength of ties, and the multiplicity of connections are closely associated with academic achievement (Coleman, 1988; Granovetter, 1973; Pusztai, 2011; 2019; 2022). Relationships with faculty and peers serve not only as sources of information but also contribute to the internalization of academic norms and to the interpretation of institutional functioning (Tinto, 1993; Pascarella & Terenzini, 2005; Pusztai, 2011; Pusztai & Csók, 2020; Pusztai & Szigeti, 2021). At the same time, not all types of relationships equally support academic progression: strong, learning-oriented ties facilitate orientation and adaptation, whereas weaker, less goal-directed connections provide more limited support (Granovetter, 1973; Wilcox et al., 2005; Kuh et al., 2008; Pusztai, 2011; 2022).

The network-based perspective is closely linked to the role of family background. Parental education and resources are traditionally considered indicators of the cultural capital available to students; however, their effects are not always unequivocally positive (Perna & Titus, 2005; Pusztai, 2011). Highly educated parents often orient their children toward more ambitious educational pathways, which in some cases may lead to the selection of study programmes that are less well aligned with students' individual interests or abilities. This may increase academic uncertainty, slow down progression, and contribute to disillusionment with higher education (Lareau, 2011; Pusztai, 2011; Pusztai & Szigeti, 2021; Csók & Pusztai, 2023).

One of the most common causes of dropout is inadequately grounded career choice, as well as disillusionment experienced during the course of studies. Some students lose motivation due to discrepancies between expectations and experiences regarding programme content, the learning environment, or labour market prospects, which may lead to programme interruption or a change of major. In many cases, changing majors can be interpreted as a transitional state preceding dropout, further reinforcing the non-linear nature of academic trajectories (Csók et al., 2019; Kovács et al., 2019; Pusztai & Szigeti, 2021).

At this point, the role of intergenerational relationships becomes particularly salient. Parental involvement cannot be interpreted merely as a background factor, but rather as an active resource that contributes to students' informational, normative, and emotional support (Perna & Titus, 2005; Kiyama et al., 2015; Pusztai et al., 2024; 2025). In international practice, the institutionalization of parental involvement is increasingly observable, appearing as a factor that supports students' academic progression (Wartman & Savage, 2015; Rappaport, 2023; Pusztai et al., 2024; 2025).

A deeper understanding of the relationship between parental involvement and student progression requires consideration of future orientation and self-regulation. Future orientation enables students to interpret their present efforts within the context of long-term goals, thereby fostering persistence and resilience in the face of obstacles (Zimbardo & Boyd, 1999; Husman & Shell, 2008; Hagedorn, 2012; Pusztai et al., 2026). Future-oriented work ethic represents the behavioral manifestation of this orientation, reflected in goal-directed effort, disciplined work practices, and long-term commitment (Zimmerman, 2002; Duckworth et al., 2007; Pusztai et al., 2026).

In this context, parental involvement may also contribute indirectly to students' academic progression by supporting the formation and maintenance of future-oriented goals (Nurmi, 1991; Miller & Brickman, 2004; Seginer, 2009; Pusztai, 2026). At the same time, its effects are neither linear nor uniform in quality: overly controlling parental involvement may undermine autonomy and self-regulation, whereas supportive involvement that allows for autonomy can foster responsibility and persistence (Grolnick & Ryan, 1989; Soenens & Vansteenkiste, 2005).

Parental involvement can be conceptualized as a multidimensional phenomenon that exerts its influence through multiple channels (Epstein, 1995; Hill & Tyson, 2009; Wartman & Savage, 2015; Kovács et al., 2022; Kocsis et al., 2024; Kocsis, 2025). Academic involvement is directly related to learning activities, social involvement facilitates integration, while communication and contact contribute to stable academic progression

by providing continuous emotional and communicative support (Hill & Tyson, 2009; Wolf et al., 2009; Kiyama et al., 2015). These dimensions shape students' future-oriented work ethic in different but interrelated ways (Grolnick & Slowiaczek, 1994; Pomerantz et al., 2007; Pusztai et al., 2024; 2025; Pusztai, 2026).

Within these decision-making processes, parental involvement exerts its influence in a differentiated manner: consistent and supportive parental presence may function as a resource contributing to persistence in studies and goal-oriented progression, whereas overly controlling or ambivalent forms of involvement may weaken students' autonomous decision-making and be associated with increased academic uncertainty and a higher risk of withdrawal (Grolnick & Ryan, 1989; Soenens & Vansteenkiste, 2005; Segrin et al., 2013; Wartman & Savage, 2015; Pusztai et al., 2024; Kocsis et al., 2025; Pusztai et al., 2025; Pusztai, 2026). Thus, the effects of parental involvement are not uniform but differentiated in quality, and may be linked in different ways to persistence in higher education and the development of students' future-oriented attitudes (Pusztai et al., 2024; 2025; Pusztai, 2026). The literature also indicates that empirical investigations of these relationships – particularly in the context of higher education – remain limited. Accordingly, the aim of the present study is to empirically examine the relationship between different patterns of parental involvement and students' future-oriented work ethic.

Methodology

This study is based on a secondary analysis of the database from the 2023–2024 survey of the MTA–DE Public Education Development Research Program. Access to the dataset was provided by Prof. Dr. Gabriella Pusztai, the principal investigator of the research. In addition to Hungary, the data collection also covered students from Hungarian minority communities in neighboring countries. The total sample size is $N = 1,336$. The sample consists of full-time students enrolled in bachelor's and undivided master's programmes. The survey of students in the 5th, 6th, as well as the 9th and 10th semesters is representative across faculties and fields of study. In terms of regional distribution, 52.5% of the sample are from Hungary, 28% from Transylvania, 9.5% from Transcarpathia, nearly 7% from Vojvodina, and 3% from Slovakia. The gender distribution is as follows: 68.2% female and 31.8% male students (Pusztai, 2026). The aim of the analysis is to identify different patterns of parental involvement in higher education and to examine their relationship with students' future-oriented work ethic. As a first step, descriptive statistics were used to characterize the distribution of parental involvement items in the sample. This was followed by a cluster analysis based on the same variables, through which distinct groups of students were identified according to patterns of parental involvement. The relationship between the identified clusters and future-oriented work ethic was examined using analysis of variance (ANOVA). To explore multivariate relationships, a two-step linear regression analysis was conducted. In the first model, the identified clusters of parental involvement were included as explanatory variables, while in the second step the model was extended with demographic and socio-economic background variables. This approach made it possible to assess the extent to which parental involvement shows an independent association with future-oriented work ethic after controlling for background factors (Pusztai, 2026).

Variables Used in the Analysis

The following section presents the dependent and independent variables included in the analysis.

Dependent Variable

The dependent variable of the study is students' future-oriented work ethic, which serves as a measure of the behavioral component of future orientation (Pusztai, 2026). The indicator was constructed using relevant items from the Perseverance of Effort subscale of the Grit Scale (Duckworth et al., 2007, cited in Pusztai, 2026), as well as from the Work Ethic Scale (Ten Have & Jehoel-Gijsbers, 1985, cited in Pusztai, 2026; Leenders et al., 2017, cited in Pusztai, 2026). These items capture persistence in pursuing long-term goals, disciplined and norm-oriented work attitudes, and perseverance in the face of obstacles. In the analysis, we used an index constructed by the MTA-DE Development of Future Consciousness Research Group through principal component analysis and transformed onto a 0–100 scale. Based on appropriate reliability indicators and the normal distribution of the scale, the variable was treated as continuous in the statistical analyses (Kovács, 2026; Miklódi-Simon & Kovács, 2026; Pusztai, 2026).

Independent Variables

Parental involvement in higher education, as an explanatory variable, was measured using a 26-item question block with Likert-scale responses ranging from 1 to 4. The measurement instrument applied in this study was developed based on Oliver (2011). The adapted items of the original questionnaire were adjusted to the Hungarian higher education context and supplemented with additional statements to more accurately reflect the experiences of domestic students (Pusztai, 2026). Among these items, the highest mean values were observed for indicators related to communication with parents. Frequent home visits (3.36), maintaining contact via phone or online communication ($M = 3.36$), and personal conversations with parents (3.36) were particularly characteristic among students. Similarly, high mean values were found for parental interest in students' studies (3.33) and for the perceived appropriateness of parental involvement (3.20). The lowest mean values were associated with negatively worded items. Students reported relatively low levels of perceived parental hindrance regarding their integration into higher education (1.37) and their learning activities (1.42). Using the items of the question block, a cluster analysis identified six groups of students based on patterns of parental involvement in higher education: students with supportive parental backgrounds, relationship-oriented parents, low-involvement parents, highly involved parents, balanced parental involvement, and ambivalent parental involvement. Students in the ambivalent parental involvement group are characterized most strongly by the perception that parental involvement hinders their learning and integration. In the low-involvement cluster, parental engagement is minimal across all dimensions, with the lowest values observed both in terms of academic support and communication. In the supportive parental background group, parental involvement is high across most domains; however, involvement in administrative aspects of studies (e.g., knowledge of timetables, exam and assignment deadlines, and assistance with course registration) is comparatively lower. This contrasts with the highly involved group, where parents are the most actively engaged in nearly all aspects of students' higher education experience. In the relationship-oriented cluster, parental involvement is typically high in terms of communication (although not consistently exceeding the levels observed among supportive or highly involved parents), while it remains moderate or lower in other domains. Finally, in the balanced involvement group, parental engagement is generally at a moderate to relatively high level across almost all dimensions. The cluster analysis of the items revealed that the largest proportions in the sample were represented by students with supportive parental backgrounds (19.5%; $N = 214$) and those with relationship-oriented parents (18.6%; $N = 204$). Students with highly involved parental backgrounds ($N = 187$) accounted for 17.0% of the sample, while the balanced involvement group ($N = 186$) comprised 16.9%. The groups characterized by low parental involvement (14.9%; $N = 164$) and ambivalent parental involvement (13.1%; $N = 144$) were present in smaller, yet still substantial proportions. For the purposes of bivariate and multivariate analyses, six new binary variables were created based on the cluster groups (0 = other groups; 1 = current group: supportive/low-involvement/highly involved/relationship-oriented/balanced/ambivalent parental background). Based on the relevant literature and the conceptual framework of the original measurement instrument, the items were grouped into three theoretically grounded dimensions of parental involvement following Oliver (2011): (1) parental involvement in higher education institution choice, (2) academic (study-related) involvement, and (3) social involvement. Reverse-coded items ("Did your parents' involvement hinder your learning?"; "Did your parents' involvement hinder your integration into higher education?") were recoded prior to this classification. In addition to these three dimensions, a fourth dimension was identified, based on items introduced in this study concerning personal and telephone communication: parent–student communication (Lánczi et al., 2026).

Demographic and socio-economic background variables were also included in the multivariate analyses in order to examine both the independent effect of parental involvement on future-oriented work ethic and its association when controlling for background factors. The control variables incorporated into the model included students' gender, minority status within the country of the institution, family structure, parental educational attainment, type of settlement of residence, subjective financial status, and parental employment status. Most background variables were entered into the analysis in dichotomous form. In the case of family background, separate variables indicated intact family structure and so-called ideal family structure. Parental educational attainment was operationalized separately for mothers and fathers using binary variables indicating primary and tertiary levels of education. Economic background was captured through a variable measuring students' subjective financial status, while the broader social environment was approximated by the type of settlement of residence (Lánczi et al., 2026; Pusztai, 2026).

In line with the aims of the study, the following research questions were addressed: 1. What patterns of parental involvement can be identified among higher education students? 2. What is the direction and strength of the relationship between patterns of parental involvement and students' future-oriented work ethic? 3. To what extent do social and demographic factors modify the relationship between parental involvement and future-oriented work ethic?

The following hypotheses were tested in the analysis:

- H1. Different patterns of parental involvement are significantly associated with higher education students' future-oriented work ethic.
- H2. Higher-intensity, consistent, and supportive forms of parental involvement are positively associated with students' future-oriented work ethic.
- H3. Low-level or ambivalent forms of parental involvement are negatively associated with students' future-oriented work ethic.
- H4. The relationship between parental involvement and future-oriented work ethic varies in a differentiated manner when controlling for social and demographic background variables.

Results

The results of the ANOVA analyses indicate significant associations between the clusters of parental involvement, as well as its specific dimensions, and students' future-oriented work ethic. These findings suggest that parental involvement does not influence the development of students' future-oriented attitudes in a uniform manner. Notably, students with highly involved parents are characterized by significantly higher mean values, indicating that consistent, intensive, and multidimensional parental engagement functions as a supportive resource in terms of persistence toward long-term goals and disciplined work practices. In contrast, students whose parents are involved at a low level ($p = 0.005$) or in an ambivalent manner ($p = 0.01$) exhibit significantly lower levels of future-oriented work ethic compared to other groups. In addition to differences between clusters, significant associations were also observed across the individual dimensions of parental involvement. Among students whose parents were actively involved in the selection of the higher education institution and in supporting decisions related to further studies ($p = 0.006$), higher levels of future-oriented work ethic were observed. A similarly strong association was found for the dimension of social involvement ($p \leq 0.001$), which encompasses support for students' integration into a new environment and related communication processes. Academic involvement – such as monitoring study-related tasks and expressing parental interest in academic performance – also showed a significant positive association ($p \leq 0.001$), as did various forms of ongoing parent–student communication ($p = 0.004$). These findings suggest that parental involvement contributes to the strengthening of students' future-oriented attitudes across multiple dimensions, particularly when it is manifested as supportive engagement and a stable relational background (Table 1).

Table 1. Associations Between Parental Involvement in Higher Education and Future-Oriented Work Ethic

Variable	Mean	SD	F	p	N
Students with supportive parental background	60.23	16.29	0.05	0.823	206
Other groups	59.94	16.68			846
Students with relationship-oriented parents	60.34	15.98	0.105	0.746	199
Other groups	59.92	16.75			853
Students with low parental involvement	56.61	17.43	7.847	0.005	159
Other groups	60.60	16.38			893
Students with highly involved parents	66.70	16.31	35.584	≤0.001	176
Other groups	58.65	16.34			876
Students with balanced parental involvement	58.34	15.50	2.155	0.142	178
Other groups	60.34	16.80			874
Students with ambivalent parental involvement	56.56	16.39	6.638	0.01	134
Other groups	60.50	16.58			918
Parental involvement in institutional choice	60.08	16.57	2.33	0.006	1244
Social involvement	59.99	16.54	2.652	≤0.001	1236
Academic involvement	59.96	16.68	2.99	≤0.001	1217
Parent–student communication	60.07	16.67	2.407	0.004	1126

Source: HEPI 2024 (Higher Education Students on Parental Involvement), N = 1,336

Notes: Statistically significant associations ($p < .05$) are presented in bold.

The effects of parental involvement clusters on students' future-oriented work ethic were examined using two-step linear regression analysis (Table 2). In the first model, only the parental involvement clusters were included as explanatory variables, while in the second model the analysis was extended with demographic and socio-economic background variables. The results indicate that students with highly involved parents showed a positive and statistically significant association with the dependent variable in both models. This effect remained robust even after controlling for background variables (Model 1: $B = 6.353$; $\beta = 0.143$; $p \leq 0.001$; Model 2: $B = 6.436$; $\beta = 0.145$; $p \leq 0.001$), suggesting that consistent and supportive parental involvement has an independent explanatory power in shaping students' future-oriented efforts. At the same time, ambivalent parental involvement exhibited a negative and statistically significant relationship with the dependent variable in both models (Model 1: $B = -4.098$; $\beta = -0.082$; $p = 0.025$; Model 2: $B = -3.978$; $\beta = -0.080$; $p = 0.031$), indicating the persistence of this effect even after accounting for control variables. In the case of students with low parental involvement, a significant negative association was observed in the first model ($B = -4.074$; $\beta = -0.088$; $p = 0.019$), but this relationship was no longer statistically significant in the second model ($p = 0.099$). The relationship-oriented and balanced involvement clusters did not show statistically significant associations in either model. Among the control variables, minority status was negatively and significantly associated with future-oriented work ethic ($B = -2.853$; $\beta = -0.086$; $p = 0.011$), while subjective financial status showed a positive and significant relationship ($B = 2.454$; $\beta = 0.073$; $p = 0.020$). The remaining background variables did not exhibit statistically significant effects.

Overall, the results of the regression models indicate that the effects of parental involvement are neither linear nor homogeneous, but are structured along markedly different directions and strengths of association. Notably, the effects of certain patterns of parental involvement persist even after controlling for social background, whereas for other forms this relationship disappears, highlighting the differentiated role of parental involvement in shaping students' future-oriented attitudes.

Table 2. Explanatory Model of Future-Oriented Work Ethic in the Context of Parental Involvement

	Variable	B	Std. Error	Beta	t	p	Tolerance	VIF
1	(Constant)	60.49	1.153		52.47	≤0,001		
	Students with relationship-oriented parents	-0.218	1.652	-0.005	-0.132	0.895	0.629	1.59
	Students with low parental involvement	-4.074	1.738	-0.088	-2.344	0.019	0.661	1.513
	Students with highly involved parents	6.353	1.693	0.143	3.753	≤0.001	0.645	1.551
	Students with balanced parental involvement	-2.277	1.682	-0.052	-1.353	0.176	0.641	1.561
	Students with ambivalent parental involvement	-4.098	1.828	-0.082	-2.242	0.025	0.691	1.447
2	(Constant)	60.231	2.297		26.22	≤0.001		
	Students with relationship-oriented parents	0.486	1.665	0.011	0.292	0.77	0.615	1.626
	Students with low parental involvement	-2.932	1.774	-0.063	-1.653	0.099	0.631	1.586
	Students with highly involved parents	6.436	1.699	0.145	3.788	≤0.001	0.635	1.574
	Students with balanced parental involvement	-2.286	1.683	-0.052	-1.358	0.175	0.636	1.573
	Students with ambivalent parental involvement	-3.978	1.846	-0.08	-2.155	0.031	0.673	1.486
	Minority status in the country of the institution	-2.853	1.114	-0.086	-2.562	0.011	0.828	1.208
	Intact family structure (two-parent household)	-0.936	1.674	-0.022	-0.559	0.576	0.58	1.723
	Ideal family structure (mother, father, siblings)	-0.239	1.364	-0.007	-0.175	0.861	0.587	1.705
	Father: at most primary education	-0.131	1.286	-0.004	-0.102	0.919	0.719	1.391
	Mother: at most primary education	0.785	1.441	0.019	0.545	0.586	0.737	1.356
	Father: tertiary education	1.277	1.392	0.034	0.917	0.359	0.687	1.455
	Mother: tertiary education	0.556	1.27	0.016	0.438	0.662	0.695	1.439
	Urban residence (city vs. village)	-0.196	1.114	-0.006	-0.176	0.86	0.839	1.192
	Favorable subjective financial status	2.454	1.05	0.073	2.337	0.02	0.945	1.059
	Father employed	1.391	1.297	0.036	1.072	0.284	0.817	1.223
	Mother employed	-0.888	1.308	-0.023	-0.679	0.497	0.804	1.244

Source: HEPI 2024 (Higher Education Students on Parental Involvement), N = 1,336

Notes: B = unstandardized regression coefficient; β = standardized regression coefficient; statistically significant coefficients ($p < .05$) are presented in bold.

Discussion

The findings of our analysis support the assumption that parental involvement is differentially associated with students' future-oriented work ethic. The first hypothesis – posited that different patterns of parental involvement are significantly related to higher education students' future-oriented work ethic – was confirmed, as significant differences emerged in students' work-related attitudes along distinct patterns of parental involvement. These results are consistent with approaches that interpret student progression as the outcome of complex relational and socialization processes (Tinto, 1993; Pusztai, 2011). Notable differences were observed between the student groups identified through cluster analysis, suggesting that qualitative differences in parental involvement are associated with variations in students' future orientation. Our second hypothesis, which assumed that higher-intensity, consistent, and supportive parental involvement is positively associated with students' future-oriented work ethic, was partially confirmed. Based on the regression models, a highly involved parental background is positively associated with future-oriented work ethic, and this relationship remains significant even after controlling for socio-demographic background variables. This suggests that certain forms

of parental involvement operate through independent mechanisms. At the same time, the findings also indicate that higher intensity of involvement alone does not necessarily lead to higher levels of future-oriented work ethic, as not all patterns of involvement showed significant associations. This supports the argument of Wartman and Savage (2015), who emphasize that the effects of parental involvement depend on its quality and mode of operation. The third hypothesis, which posited that low-level or ambivalent parental involvement is negatively associated with students' future-oriented work ethic, was also partially confirmed. Ambivalent parental involvement exhibited a negative relationship with future-oriented work ethic in both models, suggesting that unstable parental presence should be interpreted not only as a lack of resources but also as an independent risk factor. In contrast, the negative effect of low parental involvement disappeared after the inclusion of control variables, suggesting that this relationship is not independent but rather operates in conjunction with social background. The difference between these two forms of involvement highlights that the absence of parental involvement and its ambivalent form affect students' future orientation in distinct ways. The fourth hypothesis, which assumed that the relationship between parental involvement and future-oriented work ethic varies when controlling for social and demographic background variables, was clearly confirmed. The inclusion of these background variables modified the effects of different patterns of parental involvement in a differentiated manner. In particular, the association weakened for low parental involvement after controlling for background factors, whereas the effects of highly involved and ambivalent parental patterns remained robust. This suggests that certain forms of parental involvement are associated with students' future-oriented attitudes even after controlling for social background.

The role of control variables further refines the interpretation of the results. Minority status showed a negative association, while favorable subjective financial status was positively associated with future-oriented work ethic. This suggests that structural conditions and access to various resources contribute to the development of future orientation. At the same time, the fact that parental educational attainment and other classical background variables did not show statistically significant effects further supports the interpretation that the influence of family background operates not directly, but rather through the quality of parental involvement.

Overall, the findings indicate that parental involvement does not exert a uniform effect on higher education students' future-oriented work ethic; rather, its qualitative characteristics and internal structure are of decisive importance. Two forms of involvement stand out in particular: highly involved parental background, which shows a stable positive association with future-oriented work ethic, and ambivalent involvement, which consistently demonstrates a negative relationship. The effects of these patterns remain significant even after controlling for social background, indicating that the quality of parental involvement contributes as an independent factor to the development of students' future-oriented attitudes.

Conclusion

The aim of this study was to examine how different forms of parental involvement are associated with higher education students' future-oriented work ethic as a key component of academic persistence. The findings clearly demonstrate that parental involvement does not exert a uniform effect on students' future-oriented attitudes; rather, its influence is structured along pronounced qualitative differences.

Among the patterns of parental involvement identified through cluster analysis, students with highly involved and supportive parental backgrounds are characterized by significantly higher levels of future-oriented work ethic, whereas low-level – and particularly ambivalent – involvement is associated with lower levels. The multivariate analyses further confirmed that consistent and supportive parental involvement has independent explanatory power even after controlling for social and demographic background variables, while contradictory and unpredictable forms of involvement function as risk factors in shaping students' future-oriented aspirations.

Our findings indicate that it is not merely the presence of parental involvement, but rather its quality and patterns that are decisive in shaping students' future-oriented work ethic. Particularly noteworthy is that two forms of involvement – highly involved and ambivalent parental backgrounds – remain significant even after controlling for social background, underscoring the independent importance of parental involvement.

The empirical contribution of this study lies in conceptualizing parental involvement as an active and differentiated intergenerational resource that may function not only as a source of support but also as a potential risk factor in shaping higher education students' future-oriented attitudes. The findings are particularly relevant in the context of Central and Eastern European higher education and contribute to a deeper understanding of the social embeddedness of student persistence.

From a practical perspective, the findings suggest that higher education institutions should recognize parents as potential partners in supporting students' academic progression while preserving students' autonomy. Universities may benefit from developing communication channels and information programs that encourage supportive rather than controlling forms of parental involvement. At the same time, students may also benefit from guidance aimed at strengthening self-regulation and promoting balanced family relationships during higher education.

Future research could examine the longitudinal effects of parental involvement on students' future-oriented attitudes and academic persistence. It would also be worthwhile to investigate whether the observed relationships differ across fields of study, cultural contexts, and institutional environments.

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Research Paper

The role of higher education socialization in shaping students' future-oriented work ethic

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Abstract

Research on higher education clearly indicates that the institutional environment, as well as the relationships formed with faculty and peers, not only influence academic achievement and the risk of dropout, but also have a significant long-term effect on students' life trajectories, future outlook, future orientation, and even their decisions to remain in a given geographic location (Pusztai, 2011; Bess & Dee, 2012; Sütő, 2021; Sütő, 2025; Demeter-Karászi, 2025). This suggests that higher education institutions do not operate merely as knowledge-transfer organizations, but also as socializing environments that shape students' relationship with work, achievement, and long-term goals. The theoretical framework of our research is therefore grounded in approaches that interpret future-oriented work ethic not exclusively as an individual psychological trait, but as a phenomenon embedded in social relationships and institutional contexts (Berger, 2001; Kuh & Umbach, 2004). Our research seeks to answer what associations can be identified between the characteristics of the social and institutional environment of higher education institutions — in particular, institutional culture, relationships with faculty and peers, and institutional trust — and students' future-oriented work ethic. Our empirical data are drawn from the 2023–2024 survey of the MTA–DE Public Education Development Research Program, a large-scale international database comprising 1,336 respondents. The results indicate that trust-based relationships with both faculty and peers, as well as the perception of a transparent and fair institutional atmosphere, are significantly associated with higher levels of future-oriented work ethic, with perceived supportive institutional culture emerging as the strongest predictor ($\beta = 0.252$; $p < 0.001$). It is particularly noteworthy that the effect of institutional and relational factors persisted even after controlling for social background variables. Our findings thereby corroborate the theoretical stance that future-oriented work ethic is not solely derived from individual attributes, but can be understood as an orientation shaped during higher education socialization through institutional and social environments. This is an especially important finding in light of the growing heterogeneity of the student body, as it suggests that a supportive institutional culture may contribute to strengthening the future orientation and long-term academic success of students from diverse social backgrounds.

Keywords: future-oriented work ethic; institutional culture; intergenerational relationships; intragenerational relationships; higher education

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Introduction

Research on higher education increasingly emphasizes that the institutional environment does not merely function as a knowledge-transfer mechanism, but also constitutes a socializing space in which students' life trajectories, future outlook, and future orientation are formed (Pusztai, 2011; Bess & Dee, 2012; Sütő, 2021; Sütő, 2025; Demeter-Karászi, 2025). This orientation-shaping function is particularly important in the context of the growing heterogeneity of the student body, since for students from diverse sociocultural backgrounds, the higher education institution may represent the first organized socializing environment that conveys and reinforces future-conscious behaviour and long-term goal pursuit as values (Ceglédi, 2018). Consequently, the study of students' future orientation and work ethic cannot be separated from the social and institutional influences that affect young people during higher education socialization.

The theoretical framework of our research is grounded in approaches that interpret future-oriented work ethic not exclusively as an individual psychological trait, but as a phenomenon embedded in social relationships and institutional contexts (Berger, 2001; Kuh & Umbach, 2004). In our empirical study, we seek to answer what associations can be identified between the characteristics of the social and institutional environment of higher education institutions — in particular, institutional culture, relationships with faculty and peers, and institutional trust — and students' future-oriented work ethic (Pusztai, 2026).

Theoretical Background

Institutions are complex organizations operating in diverse and continuously evolving social, economic, and political environments. Initially tasked with educating elite leaders, their mission gradually expanded, and they became the primary channels of economic and social mobility for all segments of society. Today, higher education institutions are not only sites of education, but also socializing environments for lifelong learning, community engagement, and personal fulfilment, while simultaneously shaping students' relationship with work, achievement, and long-term goals, as well as their future-oriented aspirations and work-related orientations (Bess & Dee, 2012; Pusztai, 2011; Sütő, 2011; Ceglédi, 2018; Demeter-Karászi, 2025). On this basis, it is reasonable to assume that these institutions may also influence students' future-oriented aspirations and their orientations toward work and achievement (Ceglédi, 2018). The orientation-shaping role of higher education institutions, however, does not operate solely at the level of institutional structures and declared values, but also manifests in the everyday social interactions and relational networks that constitute a defining part of students' lived experience. Consequently, the development of students' future orientation and relationship with work is closely linked to how individuals connect with the institutional community and what social experiences they acquire.

During student socialization in higher education, members of the new generation are not only interpretable as individual competitors, but also as individuals who are not passive recipients — they actively seek new connections, and for whom integration into the institution's social world and among their peers is of primary importance (Pusztai, 2011; Demeter-Karászi, 2025). The periodic re-examination and reconstruction of this phenomenon becomes important because the composition and circumstances of the student body undergo constant change. The outcome of the socialization process is a sense of belonging to the group, shaped by the influences that the institution exerts on the individual (Bocsi, 2022). Intra- and intergenerational relationships, as well as the set of norms and values, can be identified as such influences. Faculty and peer relationships may strengthen an individual's attachment to the institution, but may equally distance them from it through their adverse effects. Norms and values also establish a certain connection to the institutional community and culture, which the individual is able to engage with insofar as they accept the shared system of beliefs, norms, and the institution's traditions (Bocsi, 2022; Demeter-Karászi, 2025).

Among intergenerational relationships, the relationship between students and faculty proves to be particularly significant during student socialization. For a long time, the faculty role was characterized by one-way communication from the instructor, with little or no student-initiated communication — which was largely limited to academic matters. Today, the faculty relationship is recognized as an outstanding influencing factor in student socialization (Pusztai, 2011). As Pusztai states, "the conflicts arising from the heterogeneity of higher education's social world and the value pluralism of academic life open up space for a new type of faculty role" (Pusztai, 2010, p. 50). The relationship with administrative staff can also be interpreted as an intergenerational relationship. The influence of administrative employees is most apparent in guiding students in how to fulfil their role in higher education (Pusztai, 2011), and in providing information when students encounter obstacles

in their studies. Although their presence is found in every institution, the way they communicate conveys the institutional culture (Demeter-Karászi, 2025).

Alongside intergenerational relationships, intragenerational relationships also prove to be significant. Some perspectives emphasize the social relationship and environment as the primary influencing factor in student socialization, with peer interactions being particularly important (Pusztai, 2011). This influence can be distinguished according to the social environment from which the student comes — such as the family or memberships outside the institution — and the environment they join upon entering higher education (Pusztai, 2011). It can be stated that every influence, whether from the institution itself or from internal and external organizational memberships, affects the socialization of students present in higher education (Demeter-Karászi, 2025).

Through these means, these relational dimensions can be clearly linked to the formation and maintenance of future-oriented work ethic. Future-oriented work ethic cannot be regarded solely as an individual character trait interpretable in isolation, but is rather context-dependent, a phenomenon strongly influenced by institutional and social environments (Berger, 2001). Numerous studies report that among empirically supported institutional practices that reduce dropout and strengthen future-oriented work ethic is the development of an institutional culture that facilitates social interaction among individuals and contributes to the formation and maintenance of inter- and intragenerational relationships (Berger, 2001; Kuh & Umbach, 2004; Kuh, 2001; Demeter-Karászi, 2025).

There has been growing interest in the study of future-oriented aspirations and work- and achievement-related orientations in the international literature over recent decades, driven by rapidly changing social, economic, and labour market environments, as well as the diverse challenges facing the future outlook of younger generations. A defining common feature of theoretical and empirical approaches to future orientation is that they interpret it not as a one-dimensional phenomenon, but as a combination of cognitive and behavioural components. It encompasses not only future-directed thinking and planning, but also the goal-oriented and persistent action that follows, through which the individual actively participates in shaping their own future (Nurmi, 1991; Ahvenharju et al., 2018).

One defining, operationalizable dimension of future orientation is future-oriented work ethic, which expresses the extent to which an individual is able and willing to organize and sustain their daily efforts in line with long-term goals. The concept of future-oriented work ethic is applied in this study as an operationalized dimension of future orientation, drawing on the theoretical framework of the MTA–DE Public Education Development Research Program and the relevant international literature; its theoretical grounding builds on the concept of future orientation described above. In higher education contexts, this dimension is of particular importance, as this phase of students' life course is one in which the connection between educational investment and future labour market position may become conscious, and in which patterns of relating to work and achievement consolidate into more lasting orientations. Future-oriented work ethic is therefore linked not only to academic achievement, but also to post-graduation career trajectories, labour market integration, and long-term professional commitment (Pusztai, 2026).

Our hypotheses were formulated on the basis of prior theoretical models.

- H1: A supportive institutional culture shows a positive association with students' future-oriented work ethic, as such an institutional environment contributes to commitment to long-term goals through its norm-conveying function (Berger, 2001; Kuh & Umbach, 2004).
- H2: The quality of intergenerational relationships with faculty shows a positive association with students' future-oriented work ethic, as the personal attention and professional guidance of the instructor exerts a defining socializing influence in terms of goal-setting and persistence (Pusztai, 2011).
- H3: The presence and depth of intragenerational relationships with fellow students shows a positive association with students' future-oriented work ethic, as academically and future-oriented interactions among peers reinforce norms and values related to achievement (Pusztai, 2011; Bocsi, 2022).
- H4: Given the social heterogeneity of the student composition at the institutions studied, it is assumed that social background exerts an independent explanatory power in shaping future-oriented work ethic.

Materials and Methods

Our analysis is based on a large-scale student questionnaire survey conducted during the 2023/2024 academic year (N=1336). The research covered students at Hungarian-language higher education institutions operating on the eastern periphery of the European Higher Education Area. Data collection took place at higher education institutions in the eastern region of Hungary, as well as at Hungarian-language higher education institutions in

areas populated by Hungarian minorities in the neighbouring countries of Romania, Slovakia, Serbia, and Ukraine.

The study involved a total of ten institutions. Hungarian institutions included the University of Debrecen, the Debrecen Reformed Theological University, and Nyíregyháza University. Participating institutions from across the border included Babeş-Bolyai University, the Transylvanian Hungarian University of Arts, Partium Christian University, the Ferenc Rákóczi II Transcarpathian Hungarian College, the Hungarian Language Teacher Training Faculty of the University of Novi Sad, the University of Prešov, and Selye János University. Individual quota sampling was applied at Hungarian higher education institutions, while cluster sampling was used for data collection at cross-border institutions (Pusztai, 2026).

Statistical analyses were performed using SPSS 31 statistical software. The analysis employed descriptive statistics, as well as chi-square tests and analysis of variance (ANOVA) to examine whether significant differences could be identified between student groups. Linear regression analysis was also used to investigate which factors, and to what extent, contribute to shaping future-oriented work ethic. The regression model also allowed for conditional effects between variables to be taken into account when interpreting the results.

Measures

Dependent Variable: Future-Oriented Work Ethic (FOWE)

In interpreting the concept of future-oriented work ethic in our analysis, we draw on the theoretical and empirical approach of the MTA–DE Public Education Development Research Program. The research group employed items from several measurement instruments — eight in total — to measure students' future-oriented work ethic. The first four items are drawn from the Grit Scale Perseverance of Effort subscale and include statements such as: "I finish whatever I begin", "Setbacks don't discourage me", "I work hard", and "I am diligent" (Duckworth et al., 2007). The remaining four items come from the Work Ethic Scale by Have and Jehoel-Gijsbers, which measures various dimensions of one's relationship with work, perseverance, and performance-oriented attitudes. These include the statements: "I feel happiest after working hard"; "If people want to enjoy life, they must also be prepared to work hard for it"; "Work must always come first, even if this means less leisure time"; and "A person should not do what they want until they have done their duty" (Leenders et al., 2017).

Our measure therefore focuses on the behavioural component of future orientation — specifically on how the individual maintains their commitment to long-term goals through disciplined, normatively grounded, and persistent behaviour in the face of obstacles. The Research Group refers to this instrument as future-oriented work ethic (FOWE) (Pusztai, 2026).

In our analysis, future-oriented work ethic is represented by a principal component transformed to a 0–100 scale by Kovács. The Cronbach's alpha value of the full scale was 0.739; the KMO value of the principal component was 0.791, $p < 0.001$, and the explained variance was 55.06%. The principal component includes the following items with their loadings: (1) I work hard — 0.691; (2) I feel happiest after working hard — 0.690; (3) I am diligent — 0.679; (4) I finish whatever I begin — 0.614; (5) If people want to enjoy life, they must also be prepared to work hard for it — 0.593; (6) Work must always come first, even if this means less leisure time — 0.571; (7) A person should not do what they want until they have done their duty — 0.563; (8) Setbacks don't discourage me — 0.531 (Kovács, 2026; Miklódi-Simon & Kovács, 2026; Pusztai, 2026)Pusztai, 2026).

Independent Variables

Institutional Factors

In our empirical analysis, we developed measures to assess the relationship and influence of higher education institutional factors — specifically institutional culture and inter- and intragenerational relationships. The relevant items from the questionnaire were used to construct these variables.

The quality of faculty relationships and negative experiences related to institutional functioning were captured using three items. These items asked respondents to what extent they experienced a lack of information, faculty misconduct, or a lack of assistance from fellow students during their higher education studies. A separate variable group was developed to measure trust in the institution, assessing the level of trust in various institutional actors and organizational units. This question block addressed trust in the university or

college leadership, faculty leadership, administrative staff, the majority of teaching staff, fellow students, and student council representatives.

In examining intergenerational relationships with faculty, items were included that captured various dimensions of out-of-class relationships with instructors. Questions focused on whether students had a faculty member with whom they discussed academic questions, public affairs, future plans, or personal problems, as well as whether they maintained regular email contact with any instructor, or whether any instructor personally followed their career. Intragenerational relationships were measured using items examining various forms of relationships with fellow students. The question block included relational dimensions such as discussing academic and personal problems, studying together, sharing plans for the future, conversing about academic or public affairs topics, and leisure and sports activities.

A seven-item variable group was used to measure perceived institutional culture. Questions addressed the family-like character of the institutional environment, supportive relationships between students and faculty, development-oriented functioning, a competitive spirit and performance orientation, rule compliance, transparency of information flow, and fair treatment of students. All variables included in the analysis were operationalized as composite index variables constructed from multiple items.

Sociocultural Factors

In operationalizing students' sociocultural characteristics, the analysis included variables related to minority status, family structure, parents' educational attainment and employment status, type of place of residence, and respondents' subjective financial situation.

Results

As a first step, bivariate analyses were conducted to examine the associations between variables related to institutional culture, inter- and intragenerational relationships, and future-oriented work ethic. The results showed that the large majority of the items examined were significantly associated with future-oriented work ethic, revealing several clearly discernible patterns.

With respect to variables related to institutional functioning and trust, higher future-oriented work ethic was found among students who did not experience a lack of information during their higher education studies, and who perceived that faculty treated them fairly. A close association was also observed between institutional trust and future-oriented work ethic: students who placed greater trust in their institution's and faculty's leadership, administrative staff, instructors, and fellow students tended to have higher levels of future-oriented work ethic. The results suggest that transparent and predictable institutional functioning, as well as a climate of trust, play an important role in shaping students' long-term goal orientation and persistence. However, the absence of assistance from fellow students showed no significant association with the indicator examined.

The analysis of intergenerational relationships with university faculty also revealed marked associations. In general, students who had at least one instructor with whom they conversed on various topics outside of class demonstrated higher future-oriented work ethic, and this value increased further among those with multiple such faculty relationships. Particularly strong associations emerged for items capturing interactions focused on students' future and career trajectories. Students who had an instructor with whom they discussed their future plans, or who felt that an instructor personally paid attention to their career, had significantly higher levels of future-oriented work ethic. The results suggest that the supportive, mentoring role of instructors may be of outstanding importance in reinforcing students' long-term goal orientation and persistence. In contrast, informal conversation topics such as art or sport and healthy living showed no significant association with the indicator examined.

A similar pattern was observed for intragenerational relationships with fellow students. Even the presence of a single trusting or supportive peer relationship was associated with higher future-oriented work ethic, while having multiple such relationships was generally associated with even more favourable values. Particularly important were those relationships that facilitated communication about academic matters, future plans, or academic topics. Students who had peer relationships in which they could discuss academic problems, future plans, or academic questions had higher future-oriented work ethic. An interesting pattern emerged, however, in the case of personal problems and illness: in these more sensitive life situations, the presence of a single close, trusting relationship proved most favourable. It is assumed that in such situations, students tend to rely on a few closer, trust-based relationships. Among peer relationships, spending leisure time together and conversations about art showed no significant association with future-oriented work ethic.

Analysis of the items measuring institutional culture consistently indicated strong and significant associations with future-oriented work ethic. Students who perceived their institution as family-like, characterized by a supportive atmosphere, development-oriented, performance-focused, and operating fairly showed higher future-oriented work ethic. Particularly important proved to be the perception of transparency of institutional functioning, appropriate information flow, and fair and consistent treatment. Overall, the results suggest that a supportive and predictable institutional culture may play a significant role in shaping students' long-term goal orientation, persistence, and relationship with achievement.

In the next step of the analysis, two-step linear regression was used to examine the associations between higher education institutional culture and inter- and intragenerational relationships and future-oriented work ethic. The first model included variables related to higher education institutional culture and inter- and intragenerational relationships. In the second step, the model was supplemented with the previously analyzed social background variables. The model constructed with institutional culture and inter- and intragenerational relationships showed significant explanatory power ($F(6,1092)=27.889$; $p<0.001$), explaining 12.8% of the variance in future-oriented work ethic. With the inclusion of social background variables, the model's explanatory power increased to 14.4% ($F(16,1082)=12.589$; $p<0.001$).

According to the results of the first linear regression model, all variables capturing institutional culture and the frequency and quality of inter- and intragenerational relationships showed significant, positive associations with future-oriented work ethic. The quality of inter- and intragenerational relationships, the level of trust, and the frequency of both intergenerational and intragenerational relationships all significantly increased the future-oriented work ethic of higher education students. Among the explanatory variables examined, supportive institutional culture showed the strongest effect.

In the second model, the positive effects of variables capturing institutional culture and the frequency and quality of inter- and intragenerational relationships persisted after the inclusion of social background variables. Alongside the positive supportive effects of the quality and frequency of inter- and intragenerational relationships, the level of trust, and supportive institutional culture, minority citizenship status and intact family structure significantly reduced students' future-oriented work ethic.

Table 1. The role of institutional culture, social relationships, and social background in shaping future-oriented work ethic (Beta regression coefficients)

Variable	Model 1 β	Model 2 β
Quality of faculty relationships – adequate information and fairness	0.086**	0.088**
Quality of faculty relationships – lack of information and misconduct	0.038	0.027
Trust in the institution	0.097**	0.083*
Frequency of intergenerational relationships	0.08*	0.089**
Frequency of intragenerational relationships	0.095**	0.086**
Perceived institutional culture	0.232***	0.252**
Identifies as belonging to a minority nation	–	–0.112***
Intact family structure (intact: biological parents)	–	–0.07*
Father with at most primary education	–	–0.019
Mother with at most primary education	–	0.025
Father with higher education	–	–0.014
Mother with higher education	–	0.054
Type of place of residence (urban) (dummy: 1 = urban)	–	0.009
Favourable subjective financial situation	–	0.04
Father/stepfather employed	–	0.036
Mother/stepmother employed	–	–0.026

Note: * $p < 0.05$, ** $p < 0.005$, *** $p < 0.001$

Discussion

The results of the analysis clearly support the assumption put forward in previous research that the future-oriented work ethic of higher education students is closely associated with the characteristics of institutional

culture and the frequency and quality of inter- and intragenerational relationships. The consistent patterns of the bivariate analyses showed that both supportive, trust-based relationships with faculty and with fellow students, as well as a transparent, fair, and supportive institutional environment, are associated with greater future-oriented work ethic. The results particularly emphasized that even a single close relationship can strengthen future-oriented work ethic, while the expansion of the relational network has an additional reinforcing effect. Our results thereby supported our first, second, and third hypotheses.

The regression analyses confirmed that these relational and institutional factors not only co-occur with higher levels of future-oriented work ethic, but are also independent, significant predictors of it. Supportive institutional culture proved to be the strongest explanatory variable, maintaining its prominent effect even after controlling for social background variables. In addition, the quality and frequency of inter- and intragenerational relationships, as well as the level of institutional trust, all contributed to the strengthening of students' future-oriented work ethic. This suggests that future-oriented work ethic cannot be reduced to merely individual psychological or social, sociocultural characteristics, but is to a significant degree a socially and institutionally embedded phenomenon. Based on the results, our fourth hypothesis was not confirmed.

Conclusion

The results of our research reinforce the theoretical stance that future-oriented work ethic cannot be understood exclusively as an individual psychological trait, but manifests to a significant extent as an orientation embedded in social and institutional environments. The analyses clearly revealed that the quality of higher education institutions' functioning, the characteristics of institutional culture, and the relationships formed with faculty and peers are all associated with the development of students' future-oriented work ethic.

The results particularly highlighted the role of supportive institutional culture. Students who perceived their institution as fair, transparent, characterized by a supportive atmosphere, and development-oriented had significantly higher levels of future-oriented work ethic. The regression analyses identified perceived institutional culture as the strongest explanatory factor, which retained its significant effect even after controlling for social background variables. This suggests that the socializing function of higher education institutions plays a defining role in shaping students' future orientation.

The examination of inter- and intragenerational relationships also confirmed the importance of student socialization. Personal, supportive relationships with faculty were associated with higher future-oriented work ethic. Similarly, trust-based relationships with fellow students also showed a positive association with the indicator examined. This allows us to conclude that the formation of future-oriented work ethic is determined not only by individual factors, but also by the social experiences and relational resources acquired in the higher education environment.

Particular attention is warranted by the finding that the effect of institutional and relational factors persisted after the inclusion of social background variables. This suggests that a supportive institutional environment may also play a partially compensatory role for students from different social backgrounds. Our findings are especially relevant from this perspective in the context of the growing heterogeneity of the student body, as they show that higher education institutions may be capable of providing relational and cultural resources that contribute to strengthening students' long-term goal orientation.

Overall, our results draw attention to the fact that the role of higher education institutions is not limited to knowledge transfer and labour market preparation. Institutions also create social and cultural environments capable of shaping students' relationship with work, achievement, and the future. A supportive institutional culture built on trust and connection may therefore be not only a defining factor for student well-being or persistence, but may also represent an important condition for the development of long-term future-conscious orientation and a successful life course.

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Research Paper

Why do individuals choose a career in music? A Systematic review of socialization-, motivation-, and identity-based factors

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Abstract

The process of choosing a career in music is a complex and multifaceted phenomenon that requires the integration of motivational, socialization-based, and identity-oriented perspectives for its comprehensive understanding. The aim of the present systematic literature review is to identify and synthesize empirical studies examining music career choice, particularly within the context of professional higher music education, in relation to identity formation, the quality of motivation, and career-orientation decisions. The review includes 20 studies published between 2003 and 2025, representing considerable methodological heterogeneity as well as broad geographical and cultural diversity. Based on the thematic analysis, four overarching thematic domains were identified: (1) socialization and environmental factors, (2) motivational structures and career intentions, (3) identity development and identity conflicts, and (4) the influence of institutional and educational contexts. The findings indicate that, in music career choice, musician identity generally takes precedence over teacher identity, while extrinsic motivational factors play a significant role in decisions to pursue music teaching careers. Furthermore, early socialization experiences—particularly the influence of parents and first instrumental teachers—have a long-term impact on career orientation. The review also highlights that higher education institutions do not always consciously exploit their potential role in shaping professional identity. Effective interventions therefore require multi-level, developmentally oriented approaches, including the provision of early teaching experiences, the strengthening of mentoring practices, and the introduction of portfolio-career perspectives.

Keywords: music career choice; preservice music teachers; musician identity; teacher identity; career motivation

Introduction

The study of career choice constitutes a prominent area of research within educational science and psychology, aiming to explore the factors underlying decisions that shape individuals' life trajectories. Contemporary theories of career development conceptualize career choice not as a single decision-making event, but rather as a dynamic, lifelong process closely intertwined with identity formation (Lent et al., 1994; Hirschi, 2012). Within this process, individuals do not merely select from among different occupational opportunities; they continuously construct and reconstruct their sense of self in relation to a particular professional pathway.

Psychological approaches to career choice place particular emphasis on the quality of motivation and the role of identity. According to Self-Determination Theory, career decisions are more likely to become stable and enduring when they are grounded in autonomous, intrinsic motivation and when they enable self-expression, the experience of competence, and social connectedness (Deci & Ryan, 2000). In this respect, commitment to

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a professional path becomes especially robust when the chosen activity is incorporated into an individual's sense of self and personal identity.

From a pedagogical perspective, career choice can also be understood through the lens of socialization and learning environments. From an early age, students acquire experiences through their teachers, educational settings, and institutional contexts that may exert a long-term influence on their career orientation. Consequently, the learning process cannot be interpreted solely as the transmission of knowledge and skills; rather, it also functions as an identity-forming space in which students gradually internalize what it means to belong to a particular profession.

Empirical investigations into music career choice further demonstrate that both internal (intrinsic) and external (social and institutional) factors simultaneously shape career-related decisions. Váradi et al. (2024) revealed that the determinants of music career choice can be organized into several dimensions. Their findings indicate that family patterns, peer communities, and early musical experiences, together with emotionally significant experiences associated with music—such as enjoyment and self-expression—play a substantial role in career decision-making. The study further highlights that students frequently interpret a musical career as a vocation or calling associated with long-term commitment.

From the perspective of pedagogical socialization, the role of teachers is particularly significant. Instrumental teachers not only influence students' professional development but also exert a profound impact on career orientation and, in many cases, on students' broader life trajectories. This underscores the fact that music career choice cannot be understood solely as an individual decision; rather, it is a process embedded within relational and institutional contexts.

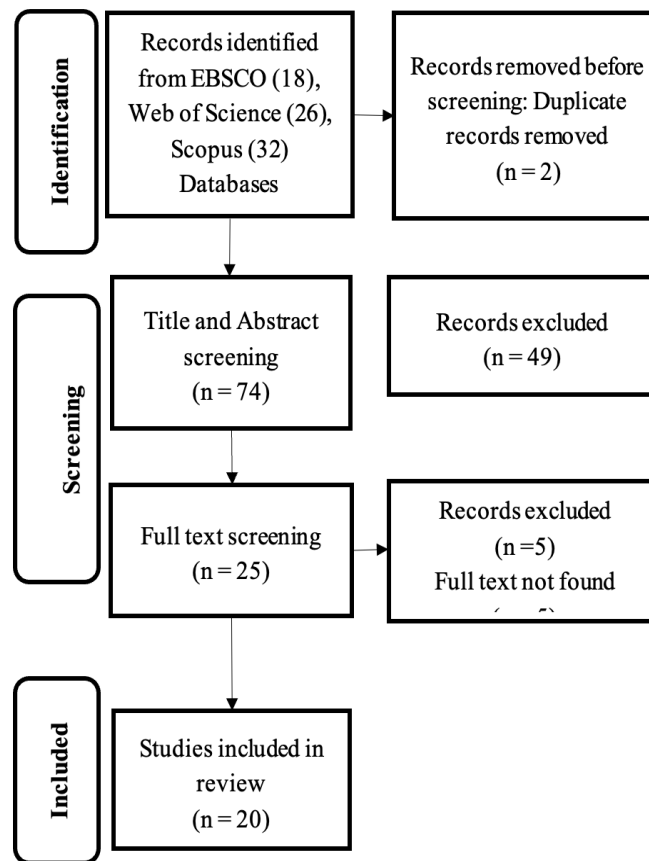
The importance of early career aspirations has also been emphasized in previous research. Váradi, Szűcs, and Strenacikova (2019) demonstrated that persistence and commitment among students in higher music education are significantly influenced by prior musical experiences and early career aspirations. Their findings suggest a close relationship between childhood “dreams” and later professional identity formation (Váradi et al., 2019).

Despite these contributions, existing studies frequently examine identity, motivation, or career decision-making in isolation and rarely integrate these dimensions into a comprehensive framework, particularly within the context of professional higher music education. As a result, there remains a lack of systematic synthesis exploring how these factors interact in shaping music career choice and career persistence.

Therefore, the aim of the present systematic literature review is to identify and synthesize studies investigating music career choice in relation to identity formation, the quality of motivation, and career-orientation decisions, with particular emphasis on the context of professional higher music education.

Method

This systematic literature review was prepared in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA 2020) guidelines (see Figure 1).

Figure 1. Preferred reporting items for systematic reviews and meta-analyses (PRISMA 2020)

Search Strategy

The literature search was conducted between March 1 and March 11, 2026, using the EBSCO, Web of Science, and Scopus databases. The search strategy employed combinations of the following keywords: *musician, music student, music major, conservatory, higher music education, career, vocation, employability, profession, choice, decision, intention, aspiration, commitment, persistence, retention, motivation, identity, calling, passion, and self-determination*.

In total, the systematic searches yielded 76 records, which were screened based on their titles and abstracts. Following the application of the inclusion and exclusion criteria, the full texts of 25 articles were assessed for eligibility. Ultimately, 20 studies were included in the review (see Figure 1).

Inclusion and Exclusion Criteria

The studies included in the systematic review met the following inclusion criteria:

- (1) they reported original research published in a peer-reviewed journal;
- (2) they were written in English;
- (3) they were available in full-text form in scholarly journals;
- (4) they contained the selected keywords in their abstracts;
- (5) they belonged to the fields of music and education;
- (6) they examined music career choice in relation to identity, the quality of motivation, and career-orientation decisions; and
- (7) they were published between 2000 and 2026.

The review was not restricted to any specific countries or geographical regions.

Data Extraction and Methodological Quality Assessment

The characteristics of the studies and the risk of bias were independently assessed by the authors. A multi-stage screening procedure was employed to identify studies meeting the inclusion criteria.

In the first stage, the titles and abstracts of all identified records were independently screened by both authors according to the following criteria: the presence of socialization-, motivation-, and identity-based factors related to career choice, within the field of music and education, and specifically in the context of professional higher music education. The results of the screening process were then compared, and studies progressed to the next phase only if both authors considered them eligible.

In the second stage, the selected studies were subjected to further analysis. The authors independently reviewed the full texts according to the same inclusion criteria applied during the first stage. After reading the full texts, both authors provided a rationale for either including or excluding each study. Studies were included in the review only when consensus was reached between the authors.

Results

The systematic searches yielded a total of 76 records. Following title and abstract screening, 25 records were retained for full-text assessment (Figure 1). All of these studies were evaluated for eligibility according to the predefined inclusion and exclusion criteria. Ultimately, 20 articles met the eligibility criteria and were included in the review (see Figure 1).

The included studies were published between 2003 and 2025, with the majority appearing between 2010 and 2019 (see Table 1).

Table 1. Distribution of the selected studies by year of publication

2000-2009	2010-2019	2020-2025
2	12	6

We considered it important that the studies included in our analysis be of high quality. For this reason, only studies that had undergone a peer-review process and had been published in Scopus-indexed journals (with one exception) were included in the analysis, as shown in Table 2; consequently, we did not use the MMAT.

Table 2. Characteristics of the selected studies

Journal	Journal metrics	Region	Number of studies
British Journal of Music Education	Scopus Q1	UK	1
British Journal of Psychology	Scopus Q1	UK	1
European Journal of Teacher Education	Scopus Q1	UK	1
Frontiers in Psychology	Scopus Q1	Switzerland	1
International Journal of Music Education	Scopus Q1	UK	1
Journal of Career Assessment	Scopus Q2	USA	1
Journal of Music Teacher Education	Scopus Q1	USA	2
Journal of Research in Music Education	Scopus Q1	USA	4
Music Education Research	Scopus Q1	UK	2
Psychology in the Schools	Scopus Q1	USA	1
Psychology of Music	Scopus Q1	UK	3
Research Studies in Music Education	Scopus Q1	UK	1
The Journal of Applied Psychology	-	USA	1

The following table presents the frequency of keywords identified in the selected studies.

Table 3. Frequency of keywords occurring in the selected studies

appeared in five studies	motivation
appeared in three studies	career intention, careers, identity, mentoring, music education, socialization,
appeared in two studies	calling, career choice, commitment, intrinsic motivation, longitudinal, music education majors, music, musicians, occupational identity, professional identity, profession, recruitment,
appeared in one study	ability, academic achievement, adolescence, advice, amotivation, business students, competitiveness, distance education, doctoral students, expectancy, expectancy-value, external regulation, extrinsic motivation, fine arts, gender, graduate music education, Higher Education music, integration, motivation for enrollment, multivariate, music educators, music school, music teacher education, music teacher educators, music teacher identity, music teacher preparation, music teacher recruitment, music teacher training, music undergraduates, narrative, occupational, one-to-one tuition, parent values, perfectionism, personality traits, physical education, possible selves, preservice music student teachers, preservice music teacher education, pre-service teacher, pre-service, retention, self-determination theory, sport, student attrition, survey study, teacher attrition, teacher characteristics, teacher roles, teacher, teacher-student relationship, university students, value

Based on the thematic analysis of the keywords, the studies can be grouped into five major thematic domains:

- (1) motivational constructs,
- (2) identity and self-concept,
- (3) career choice and career-related outcomes,
- (4) pedagogical and socialization-related factors, and
- (5) musical and institutional contexts.

Overview of the Included Studies

The present systematic review includes 20 empirical studies published between 2003 and 2025 that examine the motivational, socialization-based, and identity-related determinants of music career choice. The studies display considerable methodological heterogeneity, comprising 14 quantitative studies (Moore et al., 2003; Isbell, 2008; Austin et al., 2012; González-Moreno, 2012; Parkes & Jones, 2012; Henry, 2015; Thornton, 2015; Martin, 2016; Rickels et al., 2019; Hsu & Chi, 2022; Yang, 2022; Immerz et al., 2024; Qin & Trillo, 2025; Miksza et al., 2021), three qualitative or mixed-methods studies (Gaunt et al., 2012; Goopy, 2023; Mateos-Moreno, 2023), two longitudinal follow-up studies (Moore et al., 2003; Riza & Heller, 2015), and one theoretical–empirical study (Dobrow & Tosti-Kharas, 2012).

The geographical scope of the studies is broad, encompassing the United States (Isbell, 2008; Austin et al., 2012; Parkes & Jones, 2012; Henry, 2015; Riza & Heller, 2015; Thornton, 2015; Martin, 2016; Rickels et al., 2019), Taiwan (Hsu & Chi, 2022), Singapore (Bennett & Chong, 2018), Sweden (Mateos-Moreno, 2023), China (Yang, 2022; Qin & Trillo, 2025), Mexico (González-Moreno, 2012), Australia (Goopy, 2023), the United Kingdom (Moore et al., 2003; Gaunt et al., 2012), and Germany (Immerz et al., 2024).

The samples included preservice music teachers, music performance students, postgraduate music students, doctoral students in music education, secondary school music students, and secondary school teachers, thereby enabling the examination of career-choice processes across multiple developmental stages and from diverse perspectives.

A substantial proportion of the reviewed studies focused on the quality and structure of motivation, particularly within the framework of Self-Determination Theory. The most frequently occurring keyword was motivation, while related constructs such as intrinsic and extrinsic motivation, amotivation, external regulation, and expectancy–value also appeared across several studies.

Keywords associated with identity—including identity, professional identity, occupational identity, and possible selves—were likewise highly prominent and frequently co-occurred with motivational variables. This pattern supports the interpretation that the literature conceptualizes music career choice primarily as an identity-based process.

Keywords related to career choice and career-related outcomes—such as career intention, career choice, commitment, recruitment, and retention—also appeared across several studies, suggesting that a substantial

proportion of the literature focuses on issues of career entry and career persistence. At the same time, these variables frequently co-occurred with motivational and identity-related factors, indicating their potential mediating role in career decision-making processes.

Pedagogical and socialization-related factors were likewise strongly represented. Keywords such as mentoring, socialization, and concepts related to teacher roles and relationships (e.g., teacher–student relationship, teacher characteristics) highlight that music career choice cannot be understood solely as an individual decision, but rather as a process deeply embedded within educational and institutional environments. This interpretation is further reinforced by family-related factors, such as parent values.

Keywords associated with musical and institutional contexts—including music education, one-to-one tuition, music students, higher education, and various educational levels—indicate that most studies interpret career choice within specific educational settings. In contrast, performance-related variables such as ability and academic achievement appeared relatively infrequently, suggesting that the literature places greater emphasis on subjective perceptions and motivational factors than on objective indicators of competence.

Overall, the distribution of keywords suggests that research on music career choice is primarily conceptualized within motivational and identity-based frameworks, in which pedagogical and socialization-related factors play an important mediating role in the formation of career decisions.

Based on the thematic content analysis, four overarching thematic domains were identified through which the findings of the included studies can be organized:

- (1) socialization and environmental factors,
- (2) motivational structures and career intentions,
- (3) identity development and identity conflicts, and
- (4) the influence of institutional and educational contexts.

Socialization and Environmental Factors

The included studies consistently indicate that the roots of music career choice precede the moment of formal career decision-making by many years and are closely linked to early socialization experiences. In their longitudinal study, Moore et al. (2003), analyzing data from 257 children, demonstrated that the early commencement of music studies, parental involvement during the first lessons, and the friendliness of the first teacher collectively played a decisive role in determining whether children continued their musical studies.

Similarly, Isbell (2008), investigating preservice music teachers, concluded that parents, school music teachers, and private music instructors constitute the most influential agents of primary socialization. Parents play a key role in fostering children's initial interest in musical activities during childhood, while school music teachers contribute significantly to sustaining musical participation during adolescence. School music teachers appear to play a particularly important role in initiating and maintaining interest in music teaching careers.

Yang (2022), examining Chinese preservice music teachers, likewise found that family members played a crucial role in stimulating initial interest in musical activities during childhood. However, unlike Isbell's findings, Yang did not identify a similarly positive influence of school music teachers on fostering and sustaining interest in music education careers.

At the same time, the factors predicting professional success in adulthood formed a somewhat different constellation. Participation in concerts, engagement in improvisational practice, and the family environment—particularly parental presence—emerged as the strongest predictors, whereas the amount of formal practice alone did not independently predict later professional success.

Austin et al. (2012), in their multi-institutional study, further confirmed that the high school music teacher represents one of the most influential agents of secondary socialization. Students who perceived their high school music teacher as inspiring were significantly more likely to choose a music teaching career. This relationship was also supported by Rickels et al. (2019), who, examining 2,443 secondary school music students, found that positive teacher role modeling constituted one of the strongest distinguishing variables between students intending to pursue music teaching careers and those planning alternative music-related professions.

Thornton (2015) examined secondary school music teachers as contextual sources of support. Her findings indicated that music teachers recognized and embraced their role in the recruitment of future music educators, and more than 90% of the participants identified music teachers as a significant influencing factor in career choice. Within this process, teachers' function as role models, as well as their ability to reinforce, support, and protect mentees in order to foster future success, proved to be particularly important.

According to Isbell's (2008) findings, family members were perceived as the most positive influence in decisions regarding the pursuit of music education studies at the tertiary level (secondary socialization), followed by music education teachers and ensemble directors. The majority of participants (64%) identified music studies as a career option during high school, which was also the period when most respondents (67%) decided to pursue a career in music education. However, many students chose to combine musical performance and music education careers, or selected music education after initially deciding to continue their studies in music. Most participants made both decisions during their high school years.

Furthermore, Henry (2015) found that the overwhelming majority of talented secondary school musicians participated in a wide range of school-based and extracurricular musical experiences, including private lessons (92%), solo and ensemble competitions (92%), large-group competitions (86%), summer music camps (70%), and other extracurricular activities (76%). These experiences represented highly influential developmental opportunities and significantly affected students' decisions regarding further education.

Parental influence also emerged across several studies, although its role appeared nuanced and multifaceted. Moore et al. (2003) argued that parental support is a necessary but not sufficient condition for musical success, and that excessive parental pressure may become counterproductive. In a qualitative study, Goopy (2023) demonstrated that parental values and expectations—particularly concerns related to financial stability—may generate considerable tension between adolescent musicians' possible selves and the career paths preferred by their parents. Similarly, Qin and Trillo (2025), investigating Chinese preservice music teachers, identified parental support as a significant predictor of career intention, although its effect size was weaker than that of intrinsic motivational factors. In contrast, Thornton (2015) reported that secondary school teachers did not regard parents as a major influence on students' decisions to pursue music education careers.

Among German music and physical education student teachers examined by Immerz et al. (2024), socially induced motivation—that is, encouragement from friends, parents, and teachers—was significantly higher than in the general student population, suggesting that the social environment plays a particularly influential role in the choice of these specialized subject areas.

Motivational Structures and Career Intentions

From a motivational perspective, the reviewed studies revealed a relatively consistent pattern. In contrast to general teacher-education research, which typically identifies intrinsic and altruistic motives as dominant, the majority of the included studies indicated the predominance of extrinsic motivational factors in music-related career choices.

The role of motivational factors within the context of higher music education was also examined by Miksza, Evans, and McPherson (2021), who analyzed students' career intentions within the framework of Self-Determination Theory. Their findings demonstrated that autonomous motivation was significantly and positively associated with commitment to a musical career, whereas contextual factors such as teacher control and perfectionism exerted negative effects. At the same time, competitive environments could, in certain cases, contribute positively to the maintenance of motivation, suggesting that the context of music education shapes students' motivational profiles and career intentions in complex ways.

Using content analysis among Swedish preservice music teachers, Mateos-Moreno (2023) found that the most frequently occurring motivational category was “the opportunity to work with music” ($n = 24$), followed by “helping others” ($n = 12$) and “students' development” ($n = 11$). According to the two-level categorization applied in the study, 119 identified motivational units were extrinsic in nature, whereas only 15 units were classified as intrinsic. Interpreted within Cornali's (2019) threefold framework of altruistic, intrinsic, and extrinsic motivation, this pattern differs substantially from the motivational profiles typically observed among general preservice teachers, where altruistic and intrinsic motives generally predominate.

Immerz et al. (2024), in their quantitative investigation, identified a similar pattern. Bachelor-level music students demonstrated higher levels of intrinsic motivation than the general student population; however, students enrolled in teacher education programs exhibited significantly higher levels of extrinsic-materialistic and extrinsic-social motivation compared to bachelor music students. These findings suggest that the attractiveness of music teaching as a career path may partly derive from the perceived financial and lifestyle stability associated with the profession.

This interpretation is further supported by Yang's (2022) study, in which occupation-oriented professional development emerged as the dominant factor influencing the choice to pursue higher education in music. Within this domain, more than 50% of respondents expressed optimistic views regarding future employment

opportunities, while commitment to the teaching profession ranked as the second most important factor. In addition, Yang found that well-being—comprising moral, emotional, and psychological dimensions—represented the most significant reason for engaging with music.

Students enrolled in postgraduate programs were also asked to identify the three most important reasons for entering master's-level studies. The most frequent responses included general career development, increased income opportunities, and the improvement of music education and practice, indicating the simultaneous presence of both intrinsic and extrinsic motivational factors (González-Moreno, 2012).

In another study focusing on Chinese preservice music teachers, Yang (2022) found that during primary socialization (school years), extrinsic motivational factors—such as personal well-being and the perceived rewards of learning—were more salient than intrinsic factors, such as love for music and teaching. During secondary socialization, occupation-oriented professional development emerged as the most influential source of career choice. At the micro level, educational programs functioned as guiding structures, while at the macro level, admission requirements and educational policy served as strong orientational frameworks. This pattern suggests an identity-development process strongly shaped by forms of professionalism reinforced through educational policy.

Examining students enrolled in Mexican postgraduate music programs, González-Moreno (2012) similarly found that students typically entered these programs with high expectations shaped by aspirations for professional development and academic achievement, increased income, improvement in teaching practices, and interest in research activities.

In their discriminant analysis, Rickels et al. (2019) identified four motivational archetypes among secondary school music students. The “total immersion – teacher” profile was characterized by high utility value and a strong teacher identity, whereas the “total immersion – musician/leader” profile reflected the dominance of performance-related competence beliefs and musician identity. The markedly different motivational structures associated with these two archetypes highlight the multidimensional nature of music teaching career choice, suggesting that no single factor can adequately explain the process.

This pattern is further supported by findings from research conducted among talented secondary school musicians, in which significantly more students intending to pursue music teaching careers had participated in summer music camps (79%) compared to those who did not plan to enter music teaching. Significant differences were also identified in relation to musical leadership experiences, including conducting a piece, rehearsing an ensemble or group, and providing private lessons. Overall, students demonstrated strong and well-informed opinions about the profession. Those planning careers in music education expressed a firm commitment to the field. Although highly dedicated to this career path, these prospective music educators also recognized that the profession is not without its disadvantages (Henry, 2015).

Investigating doctoral students in music education, Martin (2016) found that commitment to higher education careers may increase with age. Furthermore, doctoral students in music education demonstrated significantly stronger commitment toward teaching in higher education than toward teaching music in kindergarten through Grade 12 settings. This finding was reinforced by the fact that the majority of participants identified college-level teaching as their preferred career path after graduation. At the same time, doctoral students who had taught in K–12 education concurrently at some point during their studies were significantly more likely to express intentions to return to K–12 teaching positions (Martin, 2016).

Examining the concept of calling, Dobrow and Tosti-Kharas (2012) argued that strong internal commitment may paradoxically reduce individuals' receptiveness to career-related advice, which in the long term may hinder realistic career planning. This issue is particularly relevant within the context of music career choice, where the intensity of musical identity may at times limit consideration of alternative career pathways.

Riza and Heller's (2015) findings further support this relationship: participants who had previously demonstrated stronger commitment to the musical domain evaluated their own musical abilities more positively several years later. This subjective self-evaluation, in turn, increased the likelihood that they would attempt to pursue success within this highly demanding field, regardless of their actual level of ability. These results suggest that commitment substantially shapes individuals' cognitive interpretations and may contribute to the prioritization of personal perceptions, even in the face of objective external feedback.

Similarly, in Thornton's (2015) study involving secondary school music teachers, the majority of participants considered love of music and musical competence—or confidence in one's musical abilities—to be particularly important factors in music career choice.

Investigating students majoring in physical education, fine arts, and music in Taiwan, Hsu and Chi (2022) found that these students demonstrated significantly higher levels of intrinsic motivation than students from

other academic disciplines. The authors suggest that this may be explained by the fact that these students had already undergone extensive training in specific skills prior to entering university. Consequently, choosing to continue participation and pursue studies within these disciplines reflects the maintenance of interest and enthusiasm for the field, as well as the demonstration of favorable performance and competence. In addition, these students may have received substantial social support from parents, peers, or coaches, which could further explain their elevated levels of intrinsic motivation. Indeed, the authors identified intrinsic motivation as the most important factor influencing learning and academic achievement among Taiwanese students (Hsu & Chi, 2022).

At the same time, students majoring in physical education, fine arts, and music also demonstrated significantly higher levels of introjected regulation than students from other disciplines. Introjected regulation represents a relatively autonomous, yet still externally regulated form of motivation. Furthermore, first- and second-year students displayed higher levels of introjected regulation than third-year students (Hsu & Chi, 2022).

With regard to external regulation, although students majoring in physical education and music exhibited higher levels of intrinsic (autonomous) motivation than students from other disciplines, their levels of external regulation (controlled motivation) were also significantly higher. External regulation in this context refers to pressures associated with parental and coaching expectations. These findings are consistent with the developmental trajectories of Taiwanese music and physical education students, who typically begin developing specialized skills at an early age (Hsu & Chi, 2022).

Within the framework of expectancy–value theory, Austin et al. (2012) demonstrated that attainment value—that is, the personal importance attached to perceiving oneself as a music teacher—constituted the strongest predictor of commitment to teaching, proving to be a more powerful predictor than intrinsic motivation or competence beliefs alone.

Similarly, Parkes and Jones (2012), examining students pursuing music-related careers, found that students' choices were directly influenced by both expectations and values. Their findings suggest the existence of a cumulative effect: the more highly students evaluated their expectations and values, the more likely they were to pursue careers in the respective domain, whether in teaching or performance. However, even students who were unlikely to pursue music teaching careers perceived music teachers as providing an important service to society and rated this value more highly than other expectancy–value constructs. Given the widespread perception that teaching is not a financially lucrative profession, students often believed that individuals must possess a strong personal commitment in order to choose teaching as a vocation. Moreover, many students appeared to consider the importance of music education itself more significant than the level of their teaching-related skills. From this perspective, it seems logical that students who regarded music education as personally important were more likely to report intentions to pursue music teaching careers.

In González-Moreno's (2012) study, gender-based analyses revealed that female students demonstrated significantly higher value perceptions than male students. Female participants considered postgraduate education more important in enhancing the impact of their professional work as musicians and music educators.

Identity Development and Identity Conflicts

Questions of identity emerged prominently across the majority of the included studies, with many investigations identifying the tension between musician identity and teacher identity as one of the most characteristic challenges faced by preservice music teachers.

Examining preservice music teachers in Singapore, Bennet and Chong (2018), drawing on the theoretical framework of possible selves (Markus & Nurius, 1986), demonstrated that most participants primarily identified themselves as musicians, while teacher identity occupied a secondary position. Particularly noteworthy was the finding that students who primarily defined themselves as music teachers were significantly more likely to intend to continue teaching after the expiration of their mandatory employment contracts. In contrast, participants with a dominant musician identity frequently planned to leave the profession even during their training.

Mateos-Moreno's (2023) findings are consistent with this interpretation. Among the Swedish students examined, the attractiveness of music teaching was primarily rooted in the opportunity to maintain an ongoing connection with music, rather than in the intrinsic value of teaching itself. These results reinforce earlier findings by Hargreaves and Marshall (2003), as well as Conway et al. (2010), who argued that the primacy of musician identity is a common characteristic within this population.

According to Parkes and Jones (2012), students' beliefs regarding the importance of music teaching and their expectations concerning musical performance are critical determinants of career choice. Students who more strongly believed that music teaching was personally important were more likely to report intentions to pursue careers in music education. Conversely, students with stronger beliefs in their future success as performers were more likely to aspire toward performance careers.

Goopy's (2023) qualitative investigation, focusing on adolescent male musicians, further enriches this perspective. Within the framework of possible selves theory, the study revealed that young musicians' possible selves—including the desired musician self, the feared financially insecure self, and the "safe career" self preferred by parents—often exist in conflict with one another. This internal tension becomes particularly critical during the transition to higher education, when career decisions begin to take more concrete form.

Austin et al. (2012) also highlighted the identity-shaping role of institutional context. Significant differences were identified among students across the 16 institutions examined with respect to the strength of occupational identity, indicating that institutional culture and the values conveyed within these environments substantially influence how students position themselves along the musician–teacher continuum.

Rickels et al. (2019) likewise confirmed that strong competence beliefs related to musical performance are negatively associated with intentions to pursue music teaching careers, suggesting the existence of a structural tension between a strong performer identity and the choice of a music teaching profession.

According to Isbell (2008), the influence of secondary socialization is significantly associated with both teacher identity and musician identity.

Yang's (2022) research involving Chinese students further demonstrated that, amid substantial governmental policy changes and restructuring within education systems, music education students experience complex struggles between the identities of student teacher and newly qualified teacher.

Riza and Heller (2015) provided evidence that an early sense of calling may help resolve career decision-making dilemmas in situations where tensions arise between the internal and external dimensions of career choice. Early vocational commitment enhances perceived competence, thereby enabling individuals to pursue challenging careers later in life, regardless of their actual level of musical ability. Individuals with strong commitment are more likely to take risks, persist in the face of challenges, complete their studies, and ultimately secure employment within their chosen vocational field, thereby potentially satisfying both internal and external career-related needs. Consequently, the conflict between the internal and external dimensions of career choice may diminish among individuals with strong vocational commitment, as they are more likely to achieve positive outcomes in both domains.

In Martin's (2016) study, doctoral students in music education identified more strongly with the identities of "music teacher educator" and "teacher mentor" than with identities such as "student" or "K–12 music teacher." In addition, doctoral students in music education expressed the lowest levels of confidence regarding their ability to maintain a satisfactory work–life balance as university professors.

Institutional and Educational Contexts

The fourth thematic domain identified across the included studies concerns the influence of institutional characteristics and structural features of higher music education on the development of professional identity and career intentions.

In their qualitative investigation, Gaunt et al. (2012), examining conservatory students' perspectives, demonstrated that one-to-one instrumental and vocal tuition—although naturally possessing strong mentoring potential—was, in practice, primarily realized through coaching, instruction, and advice-giving. It rarely extended to reflective discussions concerning long-term professional identity formation and career planning. Of the 34 students interviewed, 21 were unable to articulate concrete professional plans, and many struggled to publicly connect their passion for music with realistic professional opportunities.

Among undergraduate music education students, participation in ensembles and performance opportunities were identified as positive influencing factors contributing to decisions to continue pursuing music teaching careers (Isbell, 2008).

For Chinese preservice music teachers, educational programs and curricula may function as powerful orientational frameworks for career development (Yang, 2022).

González-Moreno's (2012) investigation among students enrolled in postgraduate music programs further highlighted that, alongside the positive effects of continuous academic advising, faculty members and institutional leadership play a decisive role in students' professional development. In particular, they contribute

to the formation of positive value systems, support the alignment of students' professional aspirations, interests, and goals with academic requirements, and foster supportive departmental cultures.

The study also demonstrated that participation in postgraduate music education is strongly motivated by aspirations for professional development, academic achievement, orientation toward academic careers, and commitment to teaching and research. Consequently, postgraduate programs should pay particular attention to how students interpret their educational experiences and to the extent to which these experiences contribute to the realization of their professional goals.

Within the Singaporean context, Bennett and Chong (2018) emphasized the identity-strengthening role of early teaching experiences. Students who had acquired classroom experience prior to entering teacher education, either as contract teachers or scholarship trainees, demonstrated stronger teacher identities and were less likely to intend to leave the profession.

Martin (2016) similarly found, among doctoral students in music education, that participants who had simultaneously taught in K–12 settings during their studies were more likely to express intentions to return to this professional pathway. At the same time, the majority of participants believed that teaching undergraduate music education students had played a substantial role in their decisions to pursue careers in higher education. The author therefore suggested that music teacher educators could provide doctoral students with more opportunities to engage in undergraduate teaching as guest lecturers or course instructors. These findings indicate that early teaching experiences play a decisive role in shaping career decisions.

Similarly, Henry (2015), examining talented secondary school musicians, observed that students intending to pursue music education careers had more frequently been offered leadership opportunities, such as conducting, leading rehearsals, or providing private lessons. These early teaching-related experiences exerted a substantial influence on their career planning.

In contrast, Thornton (2015), in a study involving secondary school teachers, found that participants did not highly value the influence of “teaching opportunities,” and relatively few teachers reported implementing strategies that incorporated teaching and/or leadership experiences.

According to the findings of Immerz et al. (2024), bachelor-level music students—who participated in the most specialized and instrument-focused training programs—were the least uncertain regarding their choice of study program, yet simultaneously considered the fewest alternative career pathways. This finding suggests that early specialization may simultaneously serve as a source of identity security and a factor limiting consideration of alternative career opportunities.

Investigating the career intentions of Chinese preservice music teachers, Qin and Trillo (2025) demonstrated that personality traits—particularly conscientiousness and extraversion—significantly predicted intentions to pursue teaching careers, with these effects operating partly through motivational mechanisms. This finding suggests that institutional selection and training processes should take personality characteristics into account in addition to musical competence.

In Yang's (2022) study, personality development also emerged as a key value of school music education. It was closely associated with individuals' core competencies and was considered capable of fostering the development of musicality, aesthetic sensitivity, and mental and emotional intelligence.

Similarly, Martin (2016), in research involving doctoral students in music education, argued that non-programmatic factors influencing effectiveness and commitment—such as personality variables and interpersonal interactions—also warrant closer examination.

Discussion

Taken together, the findings of the 20 included studies outline a complex, multi-level model of music career choice in which individual, social, and institutional factors exert their influence not independently, but through dynamic interactions. This finding fundamentally challenges simplified narratives that explain music career choice exclusively in terms of passion for music or commitment to teaching.

The most consistent finding across the reviewed studies is the primacy of musician identity over teacher identity (Bennett & Chong, 2018; Mateos-Moreno, 2023; Austin et al., 2012; Rickels et al., 2019). Importantly, this phenomenon extends beyond the initial moment of career decision-making and permeates the entire educational trajectory, showing direct associations with intentions to leave the profession. In cases where musician identity remains dominant, music teaching tends to assume an instrumental function: it becomes a means of maintaining access to music rather than being perceived as an intrinsically valuable vocation in its own right. This finding aligns with Roberts's (1991) classical concept of the “fallback career” and suggests that

systematic efforts over the past three decades to strengthen teacher identity among music students have achieved only partial success.

A second overarching finding of the review concerns the prominent role of extrinsic motivations in music teaching career choice. This pattern—confirmed by González-Moreno (2012), Yang (2022), Mateos-Moreno (2023), Immerz et al. (2024), and Qin and Trillo (2025)—casts a paradoxical light on the motivational background of individuals entering music education. On the one hand, extrinsic motivations, such as employment opportunities, financial security, and flexible working conditions, reflect rational career considerations and may contribute to stable professional commitment. On the other hand, as argued by Mateos-Moreno (2023), drawing on the work of Deci, Ryan, and Koestner (2001), the dominance of extrinsic motivation may undermine the long-term sustainability of intrinsic motivation, particularly in situations where external reinforcements—such as students' visible progress—are temporarily absent.

Within this context, the concept of calling proposed by Dobrow and Tosti-Kharas (2012) becomes particularly relevant. Strong internal commitment—represented among some preservice music teachers by the intensity of musical identity—may paradoxically reduce receptiveness to realistic career advice and generate resistance toward broader interpretations of professional identity. This mechanism may help explain why the development of teacher identity remains difficult in certain studies, even when targeted educational interventions are implemented.

The longitudinal investigations of Moore et al. (2003) and Riza and Heller (2015), together with the findings of Isbell (2008), Austin et al. (2012), and Thornton (2015) concerning secondary socialization, as well as Goopy's (2023) examination of adolescent possible selves, collectively outline the contours of a developmental socialization model of music career choice. According to this model, music career choice emerges as the outcome of a long-term, multi-stage developmental process, characterized by several critical phases: (1) early childhood musical socialization within the family; (2) the relationship with and influence of the first instrumental teacher; (3) peers' musical commitment and participation in collective musical activities; (4) the role-modeling influence of secondary school music teachers; and (5) the transition into higher education together with the identity-shaping effects of institutional environments.

This developmental perspective integrates the findings of multiple studies and highlights that the effectiveness of interventions depends substantially on age and developmental stage. During the early stages, parental support and the influence of inspiring first teachers appear to be decisive, whereas during adolescence peer influences and the dynamics of possible selves become increasingly salient. In higher education, institutional culture and educational experiences emerge as the dominant shaping forces.

The findings of Gaunt et al. (2012), Bennett and Chong (2018), and Immerz et al. (2024) collectively demonstrate that higher education institutions—despite their central role in shaping music career identity—do not always consciously exploit this potential. Conservatory education has traditionally focused on the transmission of technical mastery and comparatively rarely devotes systematic attention to the development of students' professional identities, career planning, and their understanding of real-world professional contexts.

Taken together, the findings suggest that effective interventions should operate simultaneously across multiple levels. The provision of early teaching experiences—which, according to Bennett and Chong (2018), Martin (2016), and Henry (2015), strengthens teacher identity—appears to be one of the most promising strategies. The deliberate development of mentoring practices within one-to-one instruction, advocated by Gaunt et al. (2012), could help students connect their passion for music with realistic professional opportunities. In addition, the introduction of a portfolio-career perspective, proposed by Bennett and Chong (2018), may help reconcile musician and teacher identities, allowing students to integrate rather than sacrifice one identity in favor of the other.

One important implication of the review is that the motivational structure underlying music career choice cannot be regarded as culturally neutral. Studies conducted in the United States (Isbell, 2008; Austin et al., 2012; Parkes & Jones, 2012; Henry, 2015; Riza & Heller, 2015; Thornton, 2015; Martin, 2016; Rickels et al., 2019) emphasize somewhat different factors than research carried out in Sweden (Mateos-Moreno, 2023), Singapore (Bennett & Chong, 2018), Taiwan (Hsu & Chi, 2022), China (Yang, 2022; Qin & Trillo, 2025), Mexico (González-Moreno, 2012), or Germany (Immerz et al., 2024). Socially induced motivation, for example, appears more prominently within collectivist cultural contexts, whereas self-realization and personal interest tend to dominate in more individualistic societies. Likewise, the importance of financial security—which is structurally reinforced within Singapore's scholarship and contractual obligation system (Bennett & Chong, 2018)—emerges with different intensity than in European welfare-state contexts.

Conclusion

Based on the synthesis of the 20 included studies, it can be concluded that the factors shaping music career choice can be understood across four interrelated levels: the level of early socialization and the influence of significant others; the level of motivational structures and value orientations; the level of identity dynamics; and the level of institutional and educational contexts. The interaction among these four levels gives rise to the distinctive motivational profile that differentiates preservice music teachers from students in other teacher education fields, while simultaneously encompassing both resources and risks with regard to long-term professional commitment.

For future research, particularly promising directions include the expansion of longitudinal investigations, the deepening of cross-cultural comparisons, and the empirical evaluation of interventions aimed at supporting professional identity development.

Limitations

The methodological heterogeneity of the included studies, the potential influence of publication bias, and the fact that the vast majority of the reviewed investigations focused on preservice music teachers may limit comparability across studies. Furthermore, cultural and educational differences may substantially influence the meaning and professional interpretation of the term music teacher, thereby complicating cross-cultural comparisons in research on music career choice.

Consequently, cultural variability should also be regarded as an important cautionary factor: the findings of the present review cannot be mechanically generalized across all cultural contexts. Consideration of local educational policies, institutional structures, and labor-market conditions is essential for the appropriate interpretation of the findings and for drawing valid practical implications.

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Research Paper

“Student success is not an individual achievement” – Motivation and teacher education in the digital age

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Abstract

The motivation of student teachers is a key issue in contemporary teacher education, typically examined through psychological theories focusing on individual learning processes. This paper does not aim to provide a comprehensive literature review; instead, it offers a conceptual reflection that pays tribute to the work of Gabriella Pusztai, whose research highlights the social embeddedness of student achievement, integration, and persistence. Building on her approach, the study integrates psychological, pedagogical, and sociological perspectives to reinterpret motivation in pedagogical courses. It proposes a three-dimensional framework consisting of integration, relevance, and identity, emphasising that motivation is a context-dependent and dynamically changing phenomenon. The paper also examines how digital learning environments reshape motivational conditions by influencing autonomy, relatedness, engagement, and perceived relevance. The findings suggest that understanding student motivation requires moving beyond individual-level explanations and recognising the decisive role of relational, institutional, and technological contexts.

Keywords: student teacher motivation; teacher education; social integration; professional identity; digital learning environments

Introduction

The motivation of students participating in teacher education can be considered as one of the key issues of contemporary educational research, which is closely related to the attractiveness of the teaching profession, the effectiveness of training programmes, and also to the chances of remaining in the profession (Day & Gu, 2007; OECD, 2019, 2020). The importance of motivation is especially emphasised by those theoretical approaches which interpret learning not only as a cognitive process, but also as an affective and identity-related one. A common point of these models is that long-term professional commitment can only be developed if students perceive their studies as meaningful, relevant, and at the same time intellectually challenging.

However, in the case of pedagogical courses, several studies point out that these conditions are not always fulfilled. The phenomenon of grade inflation, which is widely documented in the international literature, shows that in higher education – particularly in the fields of humanities and education – grades tend to increase over time, while the differences between student performances become less visible (Bachan, 2017; Johnson, 2003; Norton et al., 2013; Rojstaczer & Healy, 2012; Sabot & Wakeman-Linn, 1991). This phenomenon can be considered as a global tendency, although it appears in a differentiated way across disciplines (Bachan, 2017; Bonesrønning & Opstad, 2015; Norton et al., 2013).

Tasks based on reflection, essays, and portfolios often leave a wider space for interpretation for instructors compared to more standardised and closed forms of assessment (Boud & Falchikov, 2007; Sadler, 2009). At the same time, the massification of higher education, the increasing importance of student satisfaction, and the

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strengthening institutional competition may also contribute to the loosening of assessment standards (Brown, 2015; Norton et al., 2013).

From a motivational point of view, grade inflation is particularly relevant, since the assessment environment has a direct influence on students' learning orientations. If courses can be completed with relatively low risk and high success rates, there is a danger that students' motivation becomes primarily extrinsic, focusing on obtaining good grades, while intrinsic motivation, which would support deeper understanding and professional development, is pushed into the background (Deci & Ryan, 2000; Eccles & Wigfield, 2002; Ryan & Deci, 2017). This problem appears with specific weight in teacher education, as the aim of these programmes is not only the transmission of knowledge, but also the development of pedagogical thinking and professional identity, which determine in the long term the quality and sustainability of teaching practice (Beauchamp & Thomas, 2009; Korthagen, 2010).

A specific paradox of pedagogical courses can be identified here: while they play a central role in the professional development of future teachers, their assessment practices and learning organisation do not necessarily support deep learning based on intrinsic motivation. This makes it justified to examine which pedagogical approaches and learning design strategies are able to generate real engagement among student teachers. Accordingly, the aim of the present study is to explore how pedagogical courses can be transformed into learning environments that provide at the same time professional challenge, relevance, and supportive learning conditions, thus contributing to the development of students' sustained intrinsic motivation.

Perceived Importance and Usefulness of Pedagogical Courses among Student Teachers

The perception of pedagogical courses within teacher education presents a rather ambivalent picture among students. While the primary aim of these courses is to establish professional thinking and to support the development of teacher identity, empirical studies consistently indicate that a considerable proportion of students attribute only limited immediate usefulness to them, especially in the early phase of their studies (Flores, 2016; König et al., 2017; Yuan & Lee, 2016; Yu et al., 2023). The perceived relevance of pedagogical content is fundamentally determined by the extent to which students are able to connect it to concrete teaching situations (Darling-Hammond, 2017; Grossman, 2021; Mena et al., 2017).

At the same time, student perceptions show a dynamic change during the course of training. Several longitudinal studies have demonstrated that the evaluation of pedagogical courses improves significantly after the beginning of teaching practice, when theoretical knowledge becomes more directly applicable (König et al., 2017; Valtonen et al., 2019). This delayed recognition of relevance suggests that pedagogical knowledge in many cases gains its meaning only when it is embedded in practice (Darling-Hammond, 2017; Grossman, 2021).

Active learning forms – such as case analysis, microteaching, or collaborative tasks – also contribute to an increased perception of usefulness and to higher student engagement, as they make the practical relevance of pedagogical knowledge more explicit (Darling-Hammond, 2017; BeiValtonen et al., 2019; Cai et al., 2022).

Overall, research results consistently show that the perceived importance and usefulness of pedagogical courses are strongly context-dependent and change over time. This recognition has direct relevance from the perspective of student motivation, since perceived relevance and applicability play a key role in the development of sustained learning engagement (Eccles & Wigfield, 2002; Ryan & Deci, 2017).

Motivating Student Teachers in Pedagogical Courses

Psychological Theories of Motivation

The issue of motivating student teachers in pedagogical courses can be interpreted in an adequate way only within a theoretical framework which is able to capture at the same time the psychological, pedagogical, and professional identity-related dimensions of learning. According to self-determination theory, sustained and deep learning engagement is based on the satisfaction of three basic psychological needs: autonomy, competence, and relatedness (Deci & Ryan, 2000; Ryan & Deci, 2017). Empirical studies have shown that the intrinsic motivation of student teachers is closely connected to the autonomy-supportive character of the learning environment and to the availability of reflective learning opportunities (Niemiec & Ryan, 2009; Reeve, 2012). Pedagogical courses which provide possibilities for choice, give space to student opinions, and encourage independent thinking tend to result in a significantly higher level of engagement.

Recent empirical research clearly indicates that autonomy-supportive learning environments, the perceived relevance of courses, and the development of professional identity operate as a mutually reinforcing

system (Bureau et al., 2022; Cai et al., 2022; Tan & Levesque-Bristol, 2024; Yu et al., 2023). According to a large-scale meta-analysis, teacher autonomy support is a stronger predictor of students' psychological need satisfaction and self-determined motivation than other socialisation factors (Bureau et al., 2022).

In the context of teacher education, this is of particular importance, since pedagogical courses implicitly also transmit models of teaching. The study of Tan and Levesque-Bristol (2024) shows that student teachers who participate in autonomy-supportive learning environments are more likely to intend to apply similar approaches in their own future teaching practice. In this sense, the motivating power of pedagogical courses also depends on the extent to which the course itself models desirable pedagogical practices.

One of the key issues of motivational problems in pedagogical courses is the question of perceived relevance, which is a central element of expectancy–value theory (Eccles & Wigfield, 2002, 2020). According to this model, students' motivation is determined mainly by two factors: their belief in success and the value they attribute to the activity. In the case of student teachers, pedagogical courses often have a relatively low value in the initial phase of training, since students do not perceive a direct connection between these courses and their future teaching work (Flores, 2016; König et al., 2017).

Learning environments which explicitly connect theoretical content to concrete teaching situations can significantly increase students' sense of relevance and their learning engagement (Darling-Hammond, 2017; Hulleman & Harackiewicz, 2009).

The perceived value of pedagogical courses can be considered as a construct which changes over time. A longitudinal study by Yu et al. (2023) shows that pre-service teachers' competence beliefs, career values, and perceptions of the teaching profession develop dynamically during the training process, and may even decrease if students have limited access to real school experiences in the early phase of their studies.

The quality of motivation is also determined by the types of goals students pursue in the learning process. Achievement goal theory distinguishes between performance-oriented and mastery-oriented goals (Ames, 1992; Kaplan & Maehr, 2007). In the case of pedagogical courses, surface learning is often associated with a performance-oriented approach, when students' primary aim is to obtain good grades. In contrast, mastery-oriented learning environments – which emphasise understanding, development, and learning from mistakes – support deeper learning and the development of sustained motivation.

Teacher Identity and Motivation

The motivation of student teachers cannot be separated from the development of their professional identity. Research findings indicate that the formation of teacher identity is closely related to learning experiences and to the experiences gained in pedagogical courses (Beauchamp & Thomas, 2009; Flores & Day, 2006; Beijaard et al., 2023; Flores, 2020). Teacher identity is not a static entity, but rather a dynamic construct which is continuously shaped by experiences during the training process, in the course of which students gradually develop their own professional self-understanding (Beijaard et al., 2023). Courses that provide opportunities for students to interpret their own teaching role in a reflective way tend to strengthen professional commitment and intrinsic motivation, as they support the attribution of personal meaning to learning experiences (Flores, 2020; Yuan & Lee, 2021).

Reflective practices, mentored teaching experiences, and collaborative forms of learning are particularly effective in this process, since they enable students to interpret their own experiences within theoretical frameworks (Flores & Day, 2006; Korthagen, 2010). Empirical studies suggest that such learning environments not only support identity development, but also strengthen learning engagement and the sense of self-efficacy, which are key components of motivation (Cai et al., 2022; Leijen et al., 2022). Furthermore, community-based and collaborative learning forms contribute to the interpretation of the teaching role in a social and professional context, which in turn reinforces professional commitment and attachment to the profession (Trent, 2020).

For this reason, the motivating potential of pedagogical courses cannot be considered independently from the extent to which they support the development of students' teacher self-concept. Recent research also points out that professional identity development and motivation function as mutually reinforcing processes: a stronger identity is associated with higher levels of engagement and more sustained commitment, while positive learning experiences contribute to the stabilisation of identity (Cai et al., 2022).

Motivation is also influenced by the level of stress generated by the training environment. The findings of Núñez-Regueiro et al. (2024) suggest that student teachers may be highly motivated towards the profession, while at the same time experiencing the training process itself as a significant source of stress. A lack of structure in the training environment, as well as excessive and non-transparent expectations, tend to weaken motivation

and learning engagement. In contrast, clear structures, predictable requirements, and a supportive learning environment reduce stress levels and indirectly strengthen intrinsic motivation (McCarthy et al., 2022; Collie, 2023).

This aspect is of particular importance from the perspective of designing pedagogical courses, since it highlights that maintaining motivation is not only a question of providing inspiring content, but also of creating a learning environment in which expectations are transparent, the learning process is well structured, and reflective activities appear not as an excessive burden, but rather as a developmental opportunity.

The Social Embeddedness of Student Motivation: Gabriella Pusztai's Model of Integration and Persistence

A Sociological Complement to Psychological Models

Psychological models pay relatively limited attention to the social and institutional context within which these mechanisms operate. This gap is productively addressed by Gabriella Pusztai's integration- and persistence-based approach (Pusztai, 2011, 2015, Pusztai et al., 2019).

Empirical studies conducted by Pusztai consistently demonstrate that student achievement and persistence cannot be interpreted solely as individual performance, but rather as a function of institutional and social embeddedness. Students' academic trajectories are fundamentally shaped by the quality and density of their relational networks, by the extent to which they are integrated into institutional communities, and by the types of interactions they establish with their instructors and peers. This approach shows a close connection to integration models present in the international literature (Tinto, 2012), while at the same time placing a stronger emphasis on the role of social capital and community-based resources.

Horizontal and Vertical Relationships

Pusztai's research also indicates that not only the existence of relationships, but also their structure and quality are of decisive importance. Horizontal relationships, that is, those among students, and vertical relationships, that is, between instructors and students, contribute to academic success in different ways. Student communities primarily influence outcomes through social support and collaborative learning, whereas relationships with instructors play a key role in shaping professional orientation and in the internalisation of academic norms (Pusztai, 2015; Pusztai & Szabó, 2020). This distinction is particularly relevant in the context of teacher education, where professional socialisation cannot be separated from community-based learning processes.

Integration as a Motivational Mechanism

The influence of relational networks is realised in a mediated way. In several analyses, Pusztai points out that the relationship between institutional integration and academic success is mediated by intermediate variables such as academic commitment, learning activity, and – in an implicit way – motivation (Pusztai, 2011; Pusztai et al., 2019). This recognition can be well connected to motivational theoretical frameworks: relational embeddedness strengthens the experience of relatedness, which, according to self-determination theory, is one of the basic conditions of intrinsic motivation (Deci & Ryan, 2000; Ryan & Deci, 2020). In this sense, social integration should not be considered merely as a background factor, but rather as one of the determining mechanisms of motivational processes.

Specific Patterns among Student Teachers

In the case of students participating in teacher education, the studies of Pusztai and her colleagues reveal specific patterns. This group of students is typically characterised by a stronger normative and value-based orientation, which can be related to the social significance of the profession and to the dominance of helping attitudes (Pusztai, 2015; Pusztai et al., 2022). At the same time, however, a relatively lower perceived instrumental usefulness of academic activities can often be observed, especially in the early phase of training. This duality – the coexistence of strong normative commitment and low utility value – results in a specific tension within motivation, which can be well interpreted within the framework of expectancy-value theory (Eccles & Wigfield, 2020).

Persistence, Resilience, and the Digital Environment

In Pusztai's more recent works, the questions of student persistence and resilience also come into the foreground, especially in the context of a changing higher education environment and the expansion of digital learning spaces (Pusztai, 2022). These studies indicate that relational networks not only support academic success, but also function as protective factors against dropout. In contrast, the lack of community embeddedness increases the risk of decreasing motivation and the emergence of disengagement, which becomes particularly relevant in digital learning environments, where relationships are often more fragmented.

Motivation as a Context-Dependent Phenomenon: Integration, Relevance, and Identity

Based on the theoretical approaches presented above, the motivation of student teachers can be interpreted as the result of several interrelated factors.

On the basis of a combined reading of these models and the work of Gabriella Pusztai, a three-dimensional interpretative framework can be outlined, in which the motivation related to pedagogical courses can be understood through the interrelation of integration, relevance, and identity. Integration refers to the relational and institutional embeddedness of students; relevance denotes the perceived usefulness and practical value of pedagogical content; while identity includes the process of normative acceptance of the teaching role. Within this framework, motivation is not merely an internal driving force, but rather a dynamic and socially embedded process, which is shaped by institutional structures, community experiences, and the quality of the learning environment.

Why Does the Digital Space Become a Key Issue?

If motivation depends to such a strong extent on the quality of the learning environment, then the question of how digital learning environments transform these conditions becomes of particular importance. The digital space has the potential both to support and to weaken autonomy, relatedness, the sense of competence, the experience of relevance, and learning engagement. For this reason, from the perspective of the future of pedagogical courses, the key question is not whether digital technology is present in teacher education, but rather according to what kind of pedagogical logic student motivation is organised through it.

Motivation and Activation through Digital Technology

The emergence and continuous development of digital technology in education have opened a new chapter in teaching and learning processes (Hughes & Roblyer, 2022). The initial phase was marked by the introduction of computers and projectors, which significantly expanded the possibilities for visual representation. Even the ability to project a large number of illustrations quickly and efficiently represented a considerable advancement. Soon, digital animations and videos also appeared in classrooms, which had previously been accessible only via television. However, the limited size of television screens posed constraints, whereas projectors enabled much larger visual displays. As a result, more complex and detailed visual materials could be presented effectively, including those that had previously been unusable due to size limitations.

This qualitative shift in visualisation initially had a positive impact on most students: it became much easier to capture their attention, which in turn increased their level of motivation. However, their level of activity did not change, even with the introduction of new tools. Moreover, for some instructors, the availability of digital tools increased the tendency to rely on frontal teaching methods, resulting in visually impressive yet pedagogically passive sessions. Digital presentation may also negatively affect the pacing of lessons. Without careful attention, slides containing textual content can accelerate the flow of the class, as there is no need to erase the board. As a result, on the one hand slower note-takers may fall behind, on the other hand, sustained intensive attention can become cognitively exhausting.

Visualisation can also be enhanced through other digital tools, such as Augmented Reality (AR) and Virtual Reality (VR), which have opened entirely new dimensions in this field (Al-Ansi et al., 2023). Compared to traditional two-dimensional images and videos, these technologies offer a higher level of immersion and can engage multiple sensory channels. Perhaps their greatest benefit is that students are no longer passive recipients but active participants in the visualisation process. In the case of AR, which enriches the real physical environment with digitally generated virtual elements, students typically scan a so-called trigger image using a camera-enabled device and appropriate software. This trigger image is usually a specific picture or diagram, though some systems allow classroom objects to serve as triggers. The resulting virtual content may include not

only static or moving images but also interactive three-dimensional models that allow users to explore, for example, a famous building, a functioning engine, or various organs of the human body.

While AR can be effectively used even in lectures, VR is more suitable for seminars and practical sessions, as it requires specialised headsets or PC VR headsets. Through VR, learners enter a three-dimensional virtual space, interacting primarily through visual and auditory channels, increasingly complemented by physical movement (via controllers) and, in some cases, tactile feedback through sensor-equipped gloves.

The immersive nature of VR creates the illusion that users are physically present in the software generated environment, observing its elements from their own perspective. VR enables students not only to explore different locations and living organisms but also to experience situations and events that would otherwise be inaccessible (Young et al., 2020). This technology is increasingly used in professional training, allowing students to practice skills in a safe environment—for example, exploring industrial facilities, performing assembly tasks, or even conducting virtual surgical procedures. Such solutions not only capture students' attention but also motivate them to complete tasks and actively engage in their own learning processes. The high level of immersion often distracts learners from the fact that they are engaged in a learning activity, making tasks feel less burdensome; this same immersive quality reduces the perceived cognitive load of learning, as the virtual environment can be so absorbing that students become deeply engaged in the task.

The potential of AR and VR clearly demonstrates that digital technology not only enhances visualisation-based motivation but also facilitates student activation and active participation in the learning process. Student response systems are designed precisely for this purpose.

Student response systems (also known as personal response systems) represent a hardware and software environment in which students respond to questions by pressing physical or virtual buttons. During the instructor-controlled process, responses are automatically evaluated and aggregated, and feedback is provided immediately. In their early stages (early 2000s), these systems were primarily based on clickers—handheld devices roughly palm sized with buttons for answering questions. Simpler versions allowed responses to basic question types, while more advanced models with displays supported more complex tasks, such as ranking or multiple-choice questions. The most modern devices even allow short textual or formula-based responses (Simpson & Oliver, 2007). For a time, the mere presence of these devices was motivating, as students rarely encountered such tools elsewhere. However, with the widespread adoption of smartphones and tablets, their popularity declined, as these devices effectively replaced clickers. This shift was significant because removing the hardware constraints allowed the benefits of response systems to be utilised more broadly.

Such systems allow a larger number of students to be actively involved and provide instructors with accurate, real-time feedback on students' level of understanding. The possibility of anonymous participation reduces anxiety, encouraging even typically passive students to engage. Students can also submit anonymous questions, further enhancing interaction. Since these systems not only mark responses instantly but also measure response times and convert results into points, they can be used to organise fast paced, engaging competitions. Research indicates that their use increases participation, improves attention, and strengthens motivation, particularly in large lectures (Russel, 2008). In some cases, collaborative features allow students to work in groups. Collaborative work with peers is itself a key motivational factor (Ma, 2025).

Digital technology also supports collaboration in many other ways. Numerous tools facilitate the sharing of ideas and the co creation of content, whether students work synchronously or asynchronously on the same task. In such cases, digital technology not only supports but also expands horizontal learning relationships, enabling collaboration even across national borders. Students can learn about each other's cultures and living conditions, and importantly, they learn from one another. The experience of co creation enhances engagement and strengthens the sense of belonging to a learning community (Vardakosta et al., 2022), which is one of the strongest predictors of motivation.

So the digitalisation has therefore brought significant changes to teaching and learning processes, but perhaps the most important impact is the strengthening of learner autonomy. Digital technology provides students with greater freedom in choosing their learning pathways, pace, and resources—an important factor, as the Self Determination Theory (Deci & Ryan, 2000) posits that autonomy enhances intrinsic motivation. In synchronous learning environments, instructors can tailor materials and tasks to students' needs and abilities, but the pace remains uniform. In contrast, online asynchronous solutions offer exceptional opportunities for learners to acquire knowledge at their own pace and according to their own schedules. Learning via the internet also means that the location of learning becomes flexible. These advantages are highly appealing, which is why many choose e learning when available. However, despite its attractiveness, self-paced learning is suitable only for those who are sufficiently motivated, disciplined, and willing to learn independently. Increased autonomy

therefore creates self-regulation challenges, and motivation can easily decline in digital learning environments. Consequently, both learning materials and platforms must support learners. Empirical studies show that flexible and varied learning materials increase students' motivation and persistence (Bakkar & Ziden, 2023). Wiseman et al. (2016) emphasise that digital learning environments require tasks that capture students' attention and fully engage their cognitive, behavioural, and emotional resources. Learning management systems (e.g., Canvas, Moodle, Blackboard) not only deliver content but can also automatically assess certain tasks and provide immediate feedback. Students' motivation increases significantly when they can continuously monitor their own progress and performance (Veytia Bucheli, 2024).

Digital escape rooms and gamification elements (e.g., leaderboards, badges) have similar effects. These solutions make progress visible, increasing participation and enhancing the learning experience. According to Sailer and Homner (2020), environments that allow both competitive and collaborative interactions are particularly beneficial. For example, when students work in teams while competing against other teams, their performance and skills improve. In individual tasks, transparent badge systems—rewarding not only task completion but also helping peers—can also be motivating (Yildirim, 2017).

The widespread adoption of artificial intelligence (AI) has further expanded the possibilities for motivation and engagement (Jia & Tu, 2024). AI-based adaptive learning systems are able to tailor tasks and various learning materials to students' prior knowledge, learning pace, and error patterns far more accurately than previous solutions. With their assistance, fully personalized support can be provided, especially for learners with special needs (Binhammad et al., 2024). As a result, students can participate in the learning process with greater enthusiasm and motivation from the outset, and this positive effect can be further enhanced by tasks that best match their individual preferences.

Summary

Over the past decades, digital technology has radically transformed teaching learning processes and learning environments (Teoh et al., 2025). New tools and applications have not only reshaped the conditions and organisation of learning but have also significantly influenced students' motivation, engagement, and learning strategies (Benavides et al., 2020). Learner autonomy has increased substantially, along with the demand for immediate feedback and personalised learning. At the same time, the strategies instructors use to influence student motivation and activity have also changed.

It is important to emphasize that the use of digital technology in itself does not guarantee student engagement, nor does it automatically activate learners. Its effectiveness depends on pedagogical design; without this, content-centred methods that maintain student passivity may easily persist. The goal is to ensure that students increasingly become active constructors of knowledge who not only receive learning content but also create it. Such a shift, however, can only be achieved if instructors also adapt to the new environment and consciously plan the pedagogical integration of digital tools.

Artificial intelligence can provide substantial support in this process. AI-based solutions are capable of designing entire course programmes or the content of specific lessons. They can take into account the type of knowledge to be taught, learner characteristics, and the available conditions (including technological resources). They can incorporate specific methodological requirements, preferred forms of learning activities, and can also offer suggestions for student tasks. Their use makes it possible to monitor learners' progress, precisely identify where they need support, and determine the areas in which they perform best. AI can also assist instructors in the form of continuously available chatbots. Since chatbots do not require waiting time, they can provide immediate answers to students' questions and dilemmas (Chanda, 2025), reducing frustration and increasing motivation to learn.

At the same time, alongside the many positive effects, artificial intelligence may amplify pre-existing problems and introduce previously unknown risk factors. The intensive use of AI-based solutions may not only maintain but also exacerbate technological inequalities (Bulathwela et al., 2024), contribute to digital fatigue (An et al., 2025), foster learners' dependence on technology (Rahman et al., 2023), and may even induce metacognitive 'laziness' (Fan et al., 2025).

Based on current trends, there is no doubt that technology will play a central role in motivating and activating students in future learner-centred higher education. However, the responsible use of technology—particularly artificial intelligence—will also confront educators with challenges that may be difficult to address.

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Research Paper

Student employment and work values across borders - Comparative study of students from two Carpathian Basin universities

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Abstract

This study examines the correlations between student employment and work values among full-time students at the University of Szeged (SZTE) in Hungary and Sapientia Hungarian University of Transylvania (Sapientia, Romania) in Romania. The research aims to explore whether the propensity for employment and attitudes toward work are primarily shaped by individual value orientations or by structural factors, such as family background and the institutional academic milieu. The empirical basis of the study is a database (N=2078) compiled from two questionnaire-based surveys conducted in 2024. The analysis employs descriptive statistics, factor analysis, and a binary logistic regression model. Findings indicate that the proportion of working students is significantly higher at Sapientia (56.5%) than at the University of Szeged (29.0%). Regarding work values, work-life balance and a positive workplace atmosphere are of paramount importance to students. Based on the regression model, the intention to work is positively influenced by higher paternal educational attainment, as well as by 'stability and work-oriented' and 'socially responsible' value orientations; conversely, gender and socio-economic status did not prove to be significant predictors. The study's primary conclusion is that student employment today is no longer merely a consequence of financial necessity but a complex phenomenon determined by local factors and value systems. Our research highlights that the act of seeking employment is shaped by complex explanatory variables that should not be reduced solely to social background.

Keywords: students; work; work-values; comparative analysis

Introduction

The aim of this study is to capture students' attitudes toward work through two dimensions: firstly, via actual employment, and secondly, in relation to work values. The primary logic of our investigation is comparative in nature, as it is based on surveys of full-time students at Sapientia Hungarian University of Transylvania⁴ and the University of Szeged⁵. The exploration of student employment is gaining increasing prominence in domestic educational research (Kocsis, 2023; Szócs, 2021); however, the phenomenon is embedded in local contexts, meaning that the study of individual universities can enrich existing knowledge with new information. The novelty of this study lies in its comparative institutional approach and in addressing the question of which factors influence students' paid employment.

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⁴ The Sapientia Hungarian University of Transylvania is a Hungarian-language university in Romania, operating in four Transylvanian cities: Cluj-Napoca, Târgu Mureș, Miercurea Ciuc and Sfântu Gheorghe. Transylvania is a multicultural region of Romania with a significant Hungarian minority and a distinct Hungarian-language higher education sector.

⁵ The University of Szeged is a higher education institution located in the city of Szeged and its region in Hungary (Csongrád-Csanád County), situated in the southern part of the Great Hungarian Plain on the banks of the River Tisza.

Student Lifestyle, Work, and Livelihood

The lifestyle of students differs significantly from the rhythm and activity structure of 'normal' society; at the same time, it can be interpreted as a balancing act between various roles and demands (Horstmanshof & Zimitat, 2007). Committed activities are primarily based on study-related elements, yet the expansion of employment has profoundly transformed students' lifestyles. However, time is a scarce resource (Becker, 1965); thus, a higher number of hours spent in paid work reduces the time frames available for studying (Ackerman & Gross, 2003; Darolina, 2014) and leisure activities, while also increasing the risk of attrition (Lessky & Unger, 2023). Based on both international and domestic research, it can be stated that an increasing proportion of full-time students are engaged in paid work (Curtis & Shani, 2002; Hauschildt et al., 2021; OECD, 2023; Bocsi, 2013a; Fényes, 2010; Pusztai, 2015a, 2015b; Szöcs, 2024).

The reasons are complex: on one hand, this shift can be explained by the diversification of the student body (Jancsák, 2013), as the massification of higher education has led to an increase in the proportion of non-middle-class students—for whom financing livelihood and tuition costs is less secure. On the other hand, the general rise in housing and other living costs also increases the rate of working university students (Hauschildt et al., 2018; OECD, 2023; Pusztai, 2015a, 2021). Furthermore, the motivation for employment related to future career prospects and professional development is also significant (Jackson, 2015; Szöcs, 2025). However, the university population is highly heterogeneous, and this heterogeneity is also reflected in employment patterns (Pusztai & Szabó, 2008; Pusztai, 2015a, 2015b)—for instance, the extent to which paid work aligns with a student's field of study varies by discipline. According to Hauschildt's (2024) study, this likelihood is higher in pedagogy, IT, and health sciences. Additionally, differences can be observed based on geographical and social background.

Based on data from the eighth wave of the Eurostudent research - which sampled both full-time and part-time higher education students, the student employment rate in Hungary is slightly below the international average, with 57% of students engaged in paid work during the academic term and/or the summer break. At the same time, notable differences can be observed between Hungarian and Romanian higher education students in terms of employment patterns alongside their studies, as the corresponding figure for Romania is only 36%. This suggests that combining paid employment with higher education studies is considerably more common in Hungary than in Romania. However, employment patterns during the academic year present a more nuanced picture: the proportion of students engaged in regular paid work during the study period is almost identical in the two countries (Hungary: 41.9%; Romania: 42.0%), indicating that continuous employment alongside studies is similarly prevalent in both contexts. A substantial difference emerges, however, in relation to occasional employment: while 15.0% of Hungarian students undertake occasional paid work during the academic term, this proportion is only 6.2% in Romania. Correspondingly, the proportion of students who do not engage in paid employment at all during their studies is higher in Romania (51.8%) than in Hungary (43.1%). This may suggest that more flexible, study-compatible employment opportunities—such as conventional student jobs—are more readily available in Hungary. A further important characteristic of the Hungarian data concerns disadvantaged students: among this group, 74% of Hungarian students engage in paid employment, compared to 52% in Romania, while the international average for disadvantaged students stands at 66%. This may indicate several underlying dynamics. On the one hand, disadvantaged students in Hungary may be more strongly compelled to undertake paid work due to financial necessity; on the other hand, it may also reflect the greater availability of employment opportunities for students in the Hungarian higher education context. Overall, the findings suggest that student employment is a relatively integrated component of higher education life in Hungary, whereas it appears to be less widespread in Romania. The key difference between the two countries lies not primarily in regular employment during the academic year, but rather in the availability and prevalence of flexible and occasional forms of student employment. These findings may have important implications for understanding student life strategies, financial independence, equity in higher education, and the relationship between paid work and academic performance (Eurostudent 8 database, 2024).

These comparative findings are further supported by Hungarian empirical research indicating that student employment has become an increasingly common feature of higher education participation. Several studies report rising employment rates among Hungarian university students and identify factors associated with a higher likelihood of paid work, including male gender, lower parental educational attainment, and greater financial independence from parents (Fényes & Mohácsi, 2023). Kocsis (2023) also emphasizes that working students do not constitute a homogeneous group; employment is particularly prevalent among students in

economics and information technology programmes, and among those working fewer hours, motivations beyond basic subsistence - such as professional development or gaining work experience - may also be present.

At the same time, student employment may also carry academic risks. Examining dropout intentions as a function of employment intensity, Hauschildt et al. (2024) found that among students working more than 20 hours per week, the intention to drop out reached 10% in the total international sample and 13% in the Hungarian sub-sample.

Work Values

At the same time, we may rightly suspect that motives behind the fact of employment can be explained by factors other than subsistence costs, such as students' attitudes toward work. Therefore, the concept of work values is of crucial importance for our investigation. From the perspective of the survival of any civilisation, work is of paramount importance; thus, the system of relations directed toward it forms the core of cultures (Ester, Braun & Vinken, 2006). Work values assist in the process of evaluating the results and outcomes of labour and guide individuals when choosing between various work alternatives—playing a significant role, for instance, in the process of career choice and our presence in the labour market (Bocsi, 2013a; 2015; 2025). Work values are more specific than basic human values that transcend individual life situations, yet they remain interconnected (English et al., 2018; Ros, Schwartz & Surkiss, 1999). The relationship between work values and actual employment is non-linear and non-causal, as it is shaped by both individual and broader contextual elements, such as personality traits, abilities, rational decisions, and geographical-labour market factors (Duffy and Sedlacek, 2007). Work value patterns existing prior to actual employment are shaped by labour market presence, but the system of student jobs carries an equally important causal mechanism (Bocsi, 2013b).

Assuming that work values are characteristic of specific social strata and cultures, and that the content of individual categories can be interpreted objectively, this provides scope for macro-level and comparative studies (Schwartz, 1999; Holland, 1973; Hofstede, 2008). Following Kalleberg (1977), one of the most frequently used pairs of categories is extrinsic and intrinsic work values, where the former points toward accumulation, material goods, and good working conditions, while the latter relates to self-actualisation and self-expression. In the case of high social status—and students' social status and future positions are higher than the average—the acceptance of intrinsic values tends to be more characteristic (Hirschi, 2010). Alongside extrinsic and intrinsic categories, some studies also distinguish social work values (English et al., 2018).

Upon examining university students, disciplinary affiliation can also provide an interesting background, as individual professions can be characterised by specific value spaces (Astin, 1993; Becher and Trowler, 2001). The results of value studies focusing on university students simultaneously incorporate patterns brought from home or previously fixed (Jancsák, 2012), upon which the effects of employment (Szócs, 2014; 2025) and departmental-university socialisation are layered. Research also emphasises that work values are generationally embedded; thus, current research findings yield different results compared to earlier student studies. For younger generations, items related to stimulation, self-fulfilment, and social and environmental responsibility are considered more important (Bocsi, 2024; Yang, Xie & Yu, 2026). Gender differences also frequently form the subject of investigations, pointing to variations in entrepreneurial orientation (Francesko, Nedeljkovic & Njegomir, 2022), as well as extrinsic or social dimensions—however, preferences are shaped simultaneously by background factors, of which gender is only one component (Abu-Saad & Isralowitz, 1997). Domestic research can also be found in the field of student work value studies—such as the study by Csugány et al. (2025), in the theoretical part of which the authors summarise the results of university research using Super's Work Values Inventory (where social relations, variety, and self-assertion usually rank first), and then, based on a sample of students in the field of economics, they assess a somewhat different value space that also focuses on the importance of financial aspects. Fényes et al. (2021), in a study involving students from five countries including a Hungarian sub-sample, differentiated students who were career-conscious from the beginning of their studies—who could be characterised more by extrinsic traits—from students who became conscious during their training and held more intrinsic values.

In recent decades, student employment has become an increasingly significant research topic both internationally and domestically (Hauschildt et al., 2021; Kocsis, 2024; Szócs, 2021). The interpretation of the phenomenon fundamentally follows two main approaches: the structural approach emphasises the role of social background and financial necessity, while the cultural approach highlights the significance of work-related values and attitudes (Curtis & Shani, 2002; Bocsi, 2013a; Fényes & Markos, 2022; Nghia, 2019; Pusztai, 2015a, 2015b; Szócs, 2021).

The aim of the present study is to explore whether student employment and work values (separately) can be interpreted more through individual value orientations or rather along structural factors—particularly family background and the institutional environment

Methods

Data Collection, Sample Description, and Analytical Framework

The empirical basis of our study consists of questionnaire-based data collection conducted in 2024 among full-time students at two Hungarian-language higher education institutions operating in different Central European countries: Sapientia Hungarian University of Transylvania⁶ and the University of Szeged⁷.

The research is based on non-probability sampling, with the sample formed through voluntary student participation. Nevertheless, the large sample size and the comparability of the two institutions allow for an investigation into the mechanisms underlying student employment. Students were informed of the opportunity to participate through multiple channels (social media, university communication platforms). The measurement instruments are similar in several respects, focusing on specific value preferences of youth, and are suitable for comparative analysis based on the variables examined in this study.

During the preparatory phase of the databases, we identified the primary variables suitable for comparison⁸. The independent variables included gender, work values, the occurrence of employment alongside studies, parental educational attainment, and the financial status of the family background, while employment alongside studies was designated as the dependent variable. We did not examine the field of study, as it was an open-ended question in one database, and in the other, the question was about faculty affiliation. Missing and distorted data were removed, followed by the harmonisation of variable names and measurement scales (for instance, five-point work value scales were recoded into four-point scales to ensure comparability). Subsequently, a work value index was constructed based on the rescaled mean scores of the 18 work value items, transformed to a common 0–1 range. Additional variables were also recoded: employment status was operationalised as a dichotomous variable, and parental educational attainment was harmonised across the two datasets. Following variable harmonisation, the two databases were merged, and the internal consistency of the work value index was assessed, yielding satisfactory reliability (Cronbach's alpha = 0.83). Finally, an institutional affiliation variable was created to enable comparative analysis (1 = SZTE, 2 = Sapientia EMTE). Table 1 presents the sample sizes for the two institutional sub-samples and the merged database.

Table 1. Sample sizes of institutional sub-samples and the merged sample.

Institution	N	%
SZTE	1037	49.9
SAPIENTIA EMTE	1041	50.1
Total	2078	100

Source: SAPI 2024, SZTE 2024 research, authors' own construction.

Sample Characteristics

In the database (N=2078), the proportion of males was 37.6%, while females accounted for 62.4%. Maternal educational attainment showed a more favourable profile than paternal attainment (fathers: primary – 26.2%, secondary – 41.1%, degree holders – 31.7%; mothers or stepmothers: primary – 18.5%, secondary – 41.7%,

⁶ SAPIENTIA EMTE Research 2024, Principal Investigator: Dr Andor Szócs; the research was supported by the Hungarian State Eötvös Fellowship postdoctoral grant.

⁷ SZTE Research 2024, Principal Investigator: Dr habil. Csaba Jancsák. The research was funded by the IKIKK Interdisciplinary Family R&D Centre Research Group, University of Szeged.

⁸ Gender: male=1, female=2; work values: 1=not at all important, 2=not important, 3=important, 4=very important (high potential earnings, job security, good opportunities for career advancement, work should be interesting, positive workplace atmosphere, work should provide a sense of achievement, being able to meet people, work should be useful to society, work should involve responsibility, work should not be strenuous, being able to make most decisions independently, work should provide the opportunity to help others, sufficient time for family alongside work, work should be active and varied, being able to work as part of a team, workplace should be close to home, having plenty of leisure time, workplace should be family-friendly); parents' educational attainment: 1=primary or vocational, 2=secondary (GCE/A-level, NVQ), 3=higher education (degree, PhD); socio-economic status of family background: 1=disadvantaged, 2=average, 3=favourable; employment alongside studies: 0=no, 1=yes.

degree holders – 39.2%). Regarding financial status, 2.3% of students identified their situation as disadvantaged, 56.6% as average, and 41.1% as favourable⁹. The categories for financial status were subsequently merged into two values to ensure adequate sample sizes. Comparing the two institutions using chi-square statistics, it can be stated that women are overrepresented in the University of Szeged sample ($\chi^2(1, N = 2077) = 117.331, p < .001$). In terms of paternal educational attainment, primary and higher education degrees are more frequent at Sapientia, while secondary education is more prevalent at SZTE ($\chi^2(2, N = 2056) = 276.273, p < .001$). Regarding mothers, the cell frequencies for primary and secondary education are higher than expected in the Transylvanian sub-sample, while degree holders are more frequent in Szeged ($\chi^2(2, N = 2065) = 307.782, p < .001$). The perception of financial status is also specific: more SZTE students fall into the 'average' cell, while Transylvanian students are overrepresented in the 'disadvantaged' and 'favourable' categories ($\chi^2(2, N = 2075) = 77.421, p < .001$).

Results

The proportion of employment alongside university studies is 43% in the total sample. Examining this value using chi-square statistics reveals a significant difference between the two sub-samples ($\chi^2(1, N = 2050) = 157.448, p < .001$), with considerably higher values obtained for the Transylvanian students (Sapientia – 56.5%, SZTE – 29%)¹⁰.

The profile of work values is presented in Table 2. It can be observed from the table that work values are dominated by convenience and intrinsic elements; career advancement and high earnings occupy the middle ground, while social elements are positioned at the end of the list.

Table 2. Means of work values in the merged sample (converted to a 0–1 scale, 1 signs the greater importance)

	Mean	SD
Work should not be strenuous	0.619	0.270
Work should involve responsibility	0.684	0.240
Being able to work as part of a team	0.685	0.275
Being able to make most decisions independently	0.691	0.244
Being able to meet people	0.743	0.238
Work should provide the opportunity to help others	0.749	0.251
Good opportunities for career advancement	0.750	0.252
Having plenty of leisure time	0.756	0.222
Workplace should be close to home	0.758	0.240
Work should be varied	0.763	0.227
Work should be useful to society	0.764	0.241
Workplace should be family-friendly	0.789	0.232
High potential earnings	0.792	0.202
Work should provide a sense of achievement	0.796	0.239
Job security	0.796	0.214
Work should be interesting	0.800	0.219
Positive workplace atmosphere	0.856	0.191
Sufficient time for family alongside work	0.899	0.181

Source: SAPI 2024, SZTE 2024 research, authors' own construction.

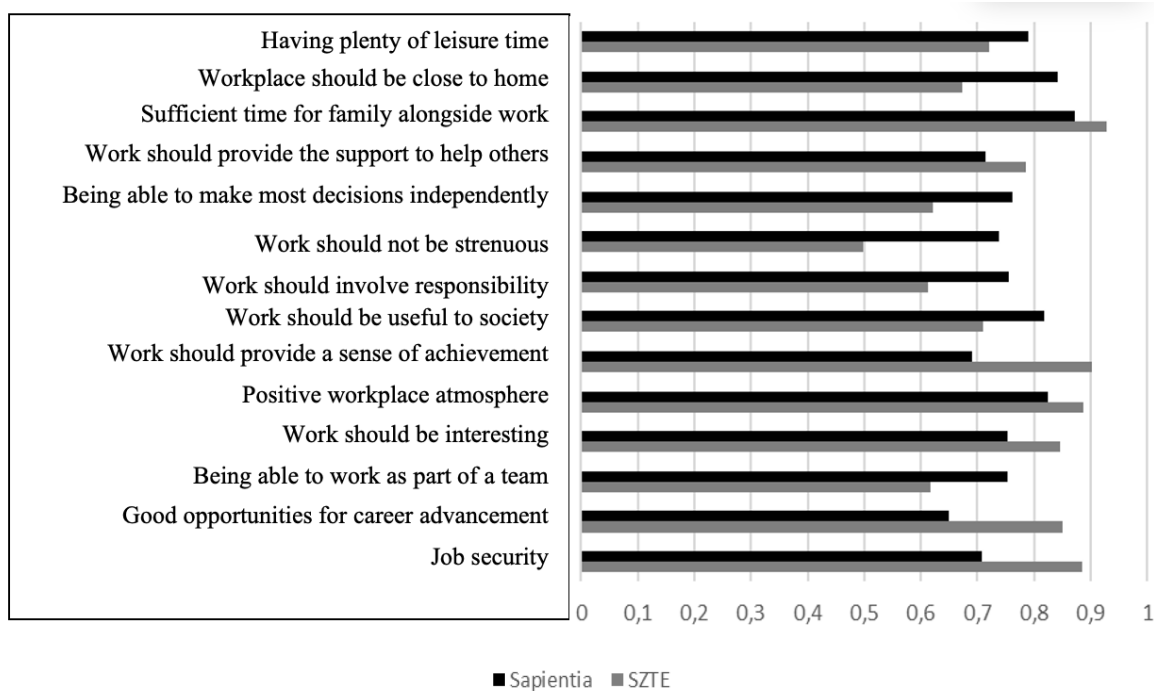
We also examined work values by comparing the two institutions using analysis of variance. Significant differences were found for almost all items (analysis of variance, ANOVA, $p < .05$), with the exceptions of

⁹ Percentages do not include missing data.

¹⁰ In addition to the binary variable (no/yes), paid employment was also examined according to the frequency of work (summer/occasional and regular employment). The results show that among students engaged in paid work, summer/occasional employment is most characteristic (SAPI: 76%, SZTE: 35%), while the rate of regular paid employment is 37% for Sapientia EMTE students and 23% for SZTE students. However, these variables are primarily suitable for descriptive comparison; their inclusion in more complex statistical models faces methodological constraints due to differing measurement logics.

'high potential earnings', 'work should be varied', 'being able to meet people', and 'workplace should be family-friendly'. These differences are presented in Figure 1. The work value domains outlined in the theoretical framework cannot be clearly attributed to one or the other sub-sample; however, job security and career advancement received higher scores at the University of Szeged.

Figure 1. Significant differences in the mean values of work value items between University of Szeged and Sapientia Hungarian University of Transylvania students (significant correlations)



Source: SAPI 2024, SZTE 2024 research, authors' own construction.

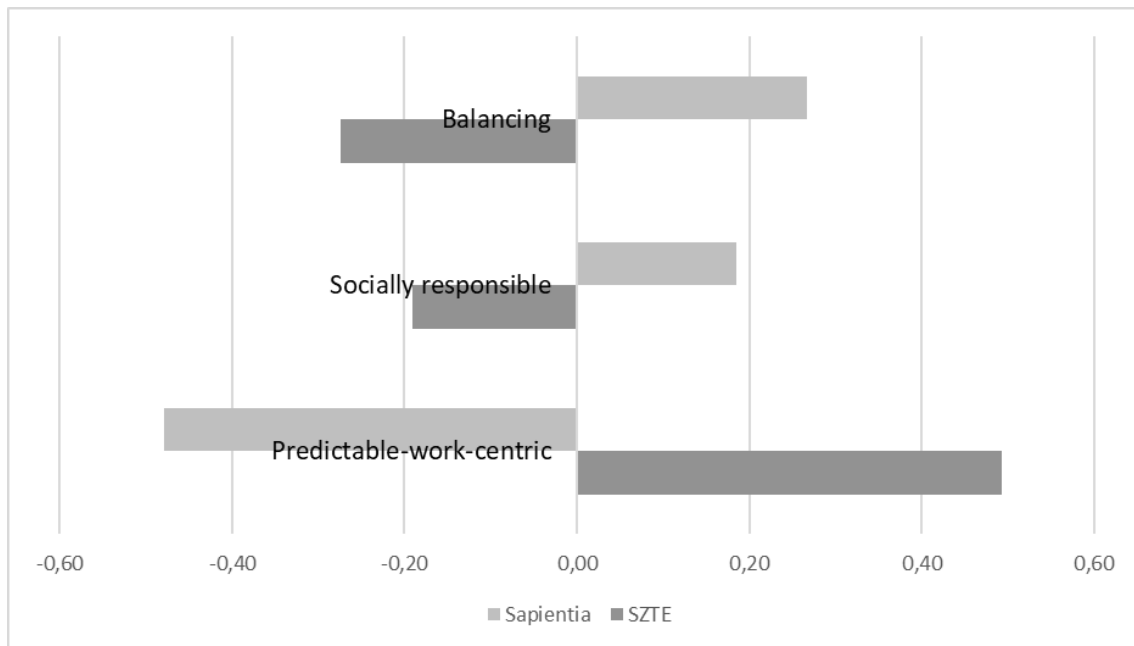
We identified factors using the work value items (Table 3). We chose the technique of factor analysis to explore latent structures in the field of work values. Using the Maximum Likelihood method with Varimax rotation, we identified three factors with eigenvalues greater than one. At the end of the procedure, 12 items were retained. The communality of each item exceeded 0.25. The total variance explained was 38.304% (which exceeds the minimum criterion of 33% recommended according to Barna & Székelyi (2004)), and the KMO (Kaiser-Meyer-Olkin) test value was 0.805. The first factor ('predictable-work-centric') features a mix of extrinsic and intrinsic traits, all of which relate to the internal environment and atmosphere of the workplace. The second factor ('socially responsible') is composed of items related to social commitment, while the profile of the 'balancing' factor is easily interpretable (workplace close to home, plenty of leisure time, and a family-friendly workplace).

Table 3. Factor loadings of work values in the merged database

	Predictable-work-centric	Socially responsible	Balancing
Job security	.511	.038	.087
Good opportunities for career advancement	.585	.014	.045
Work should be interesting	.543	.299	.085
Positive workplace atmosphere	.487	.237	.167
Work should provide a sense of achievement	.741	.143	-.004
Being able to meet people	.237	.416	.174
Work should be useful to society	.092	.667	.198
Work should involve responsibility	-.009	.543	.211
Work should provide the opportunity to help others	.352	.490	-.018
Workplace should be close to home	-.031	.188	.746
Having plenty of leisure time	.116	.117	.590
Workplace should be family-friendly	.251	.259	.382

Source: SAPI 2024, SZTE 2024 research, authors' own construction.

Examining the values of the three factors by institution (analysis of variance, ANOVA, $p < 0.05$), we find that the first factor is more characteristic of students at SZTE, while the second and third factors are more prevalent among Sapientia students (Figure 2).

Figure 2. Institutional comparison of work value factors

Source: SAPI 2024, SZTE 2024 research, authors' own construction.

In the final step of our analysis, we performed a binary logistic regression model, with employment alongside university studies as the dependent variable. The model consisted of three steps: first, the background variables were included; in the second step, the work value factors; and in the third step, the dichotomous variable for the institutions (Table 4). The third step of the model—the inclusion of the institution—altered the previous correlations; therefore, a collinearity test was conducted. Based on the collinearity test (VIF = 1.02–1.47), no multicollinearity was present among the explanatory variables.

Table 4. The system of background factors increasing the likelihood of employment alongside university studies

	Step 1.		Step 2.		Step 3	
	Sig.	Exp(B)	Sig.	Exp(B)	Sig.	Exp(B)
Gender (0= female, 1= male)	.063	1.191	.430	1.080	.658	.956
<i>Paternal education (dummy, ref: secondary)</i>						
Primary	.086	1.230	.089	1.235	.322	1.135
Degree	.821	1.027	.285	1.139	.033	1.308
<i>Maternal education (dummy, ref: secondary)</i>						
Primary	.006	1.437	.012	1.411	.117	1.246
Degree	<.001	.690	.008	.734	.162	.845
Financial status (0= disadvantaged or average, 1= favourable)	.021	1.239	.069	1.189	.874	1.016
Predictable-work-centric value factor			<.001	.821	.003	1.249
Socially responsible value factor			<.001	1.374	.099	1.119
Balancing value factor			.022	1.146	.265	.930
Institution (0= Sapientia, 1= SZTE)					<.001	.260
Constant		-432		-435		.267
Explanatory power (Nagelkerke R ²)		0.038		0.065		0.119

Source: SAPI 2024, SZTE 2024 research, authors' own construction.

In the first step, maternal primary education increased the likelihood of student employment, while a maternal degree decreased it. A weaker but significant effect was associated with financial status (with a higher likelihood of employment in the case of a favourable status). In the second step, the effect of maternal education remained, the effect of financial status disappeared, and all work value factors possessed explanatory power. By including institutional affiliation, the explanatory power of the model increased further; in the final step, paternal degree, the predictable-work-centric factor, the socially responsible factor, and institutional affiliation all had an effect. For students attending SZTE, the likelihood of employment was lower, while the other three variables exerted a positive influence.

Discussion

Based on the data obtained, it can be stated that the frequency of employment is higher in the Sapientia Hungarian University of Transylvania sub-sample than in that of the University of Szeged (56.5% and 29% – R1). Among the possible explanations, we may note that the overall rate of student employment is higher in Romania (Hauschildt, 2024); furthermore, the student population of Sapientia EMTE is far smaller than the full-time student body of SZTE, and its university faculties are located in four distinct geographical environments (cities). Consequently, individual faculties can achieve much higher levels of student engagement regarding any student-related programme or opportunity, including the efficiency of their career offices. The institutional embeddedness of students, their connections, and their presence in university life are arguably more pronounced than in the case of SZTE, which has a significantly larger student population. In addition, this difference can naturally be explained by numerous other elements that could not be explored in our research. These may include differing job opportunities, the organisational structure of student work opportunities, the activity of career offices, and the specific characteristics of the university and urban environments. A more thorough investigation of these factors would require local studies of a qualitative nature.

Based on individual items of work values, we find a mixed profile; the previously cited intrinsic, extrinsic, and social dimensions are not positioned in isolation but appear as a blend. Work-life balance, a positive workplace atmosphere, and the interesting nature of work are of paramount importance. High earnings and the intention to provide social assistance are positioned somewhat lower, while the opportunity for advancement ranks only 13th. The analysis of the factors also reveals a mixed pattern. The predictable-work-centric factor includes both extrinsic (job security, career) and intrinsic (interesting work) traits—the common element perhaps being that the clustered items focus on the workplace and the work itself in terms of location and objective. In the case of the socially responsible factor, the items extend beyond the boundaries of the workplace—primarily in the dimension of social utility. The balancing factor clearly demonstrates the priority

of family and private life. While the item-by-item comparison did not yield a specific profile, the investigation of the two institutions along the factors showed more concrete and interpretable results. For the Szeged sub-sample, the predictable-work-centric factor received significantly higher scores, while for the Transylvanian students, the socially responsible and balancing factors were more prominent. A previous study compared the work values of Romanian, Romanian-Hungarian, and Hungarian university sub-samples (Bocsi, 2015) and found that the extrinsic factor was of greater importance in the Hungarian sub-sample. Müller-Fábián (2013) conducted a comparative Romanian-Hungarian analysis focusing on work values at the Babeş-Bolyai University and concluded that the role of altruism is more important for the minority Hungarian sub-sample—a result that can be paralleled with the acceptance of the socially responsible factor. Overall, social and helping elements can be linked to minority status, just as family and time spent with family reflect a more traditional picture. Based on Hofstede's research, it can also be stated that in the case of Romania, present-orientation is stronger, which foreshadows the importance of leisure time (II).

The main lesson of the regression model is that all three groups of variables or individual variables showed a significant correlation with the fact of employment (R2, R3, R4), and the second (work values) and third steps (institutional affiliation) further increased the explanatory power of our model. The likelihood of student employment increased if the father was a degree holder, and employment was shaped by the predictable-work-centric and socially responsible orientations among the work value factors. As seen previously, these factors pertained to the workplace environment and the intrinsic value of work (as opposed to the items seated on the balancing factor). Regarding gender and financial status, no significant correlation was found. This latter finding is an important result, as it suggests that student employment is not motivated purely by financial necessity. This partly contradicts the often implicit assumption that student employment stems primarily from financial pressure. Although research results generally suggest that scarcer resources induce employment, there are also findings where better resources (e.g., higher paternal cultural capital) indirectly result in more conscious career building (Mooi-Reci, Yaish & Craig, 2025). Our research draws attention to the fact that employment is shaped by complex explanatory variables that should not be reduced solely to social background. The significant effect of the institutional variable suggests that local studies can reveal specific, unique patterns embedded in the characteristics of the institutions and their respective cities.

Limitations

The limitations of our analysis include the sampling method, as the students who completed the questionnaire do not constitute a representative sample of the institutions; however, the large sample sizes effectively demonstrate work value and employment trends at the institutional level. Several variables important for the analysis could not be included—such as the field of study variable. During the merging process, the content of certain variables might not be entirely equivalent due to the differing social contexts (e.g., the perception of financial status). Regarding employment, a more comprehensive picture could have been obtained if its alignment with the student's major had also been included in the analysis.

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Research Paper

Values as a connecting bridge between religiosity and volunteering

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Abstract

Numerous studies examine behaviours associated with religiosity, including volunteering, which shows a positive correlation especially with collective religious practice. This effect may also derive from character development and value transfer associated with religiosity, based on certain studies. However, factors originating from religious community may be the primary drivers of this positive association. In our paper, we examine Schwartz's four higher-order value dimensions as mediators between religiosity and volunteering. Using the European Social Survey 2023/24 database (N=42,489), we applied a mediation analysis in which individual-level effects of religiosity can be identified through indirect, value-mediated pathways, while effects originating from religious community can be identified through direct effects. Our results support the mediating role of values between religiosity and volunteering. However, the value-shaping effects of religiosity overall reduce the likelihood of volunteering, as religiosity primarily promotes conservation values, which in turn decrease the probability of volunteering. In contrast, our mediation model revealed a direct positive association between religiosity and volunteering. Based on our findings, religiosity contributes to higher volunteering behaviour primarily through the reinforcement of mutually supportive networks and prosocial norms, as well as through the provision of formal frameworks for volunteering in religious communities. Our future plans include incorporating more control variables into the model, which may nuance our results to date.

Keywords: religiosity; basic human values; volunteering; mediation analysis

Introduction

Values have played a central role since the early 1900s in explaining both macro-level (Durkheim, 1933; Inglehart, 1977) and micro-level phenomena (Rokeach, 1973; Schwartz, 1992). Schwartz (1992) conceptualized values as broadly defined motivational factors underlying human behavior and decision-making. In Schwartz's value model, which comprises the 10, or later 19 basic values, the values are arranged in a circular structure that does not follow a hierarchical ordering. The aim of our study is to explore the relationship between Schwartz's basic value dimensions and volunteering, as well as its association with religiosity.

In the theoretical section of the paper, we first present Schwartz's (2016) micro-level theory of value orientations, which – due to its interdisciplinary and cross-cultural applicability – has become one of the most widely used frameworks in contemporary research (Schwartz, 2014, 2016; Schwartz et al., 2012, 2017; Schwartz & Cieciuch, 2022; Schwartz & Sortheix, 2018). Subsequently, we examine the relationships between values and volunteering, religiosity and values, and finally religiosity and volunteering, based on the literature. Following the presentation of the methodology, the empirical section analyses data from Wave 11 of the ESS database. We applied mediation analysis to investigate the direct effect of religiosity on volunteering, as well

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as its indirect effect through value identifications. In the concluding section, we interpret our findings in light of the existing literature.

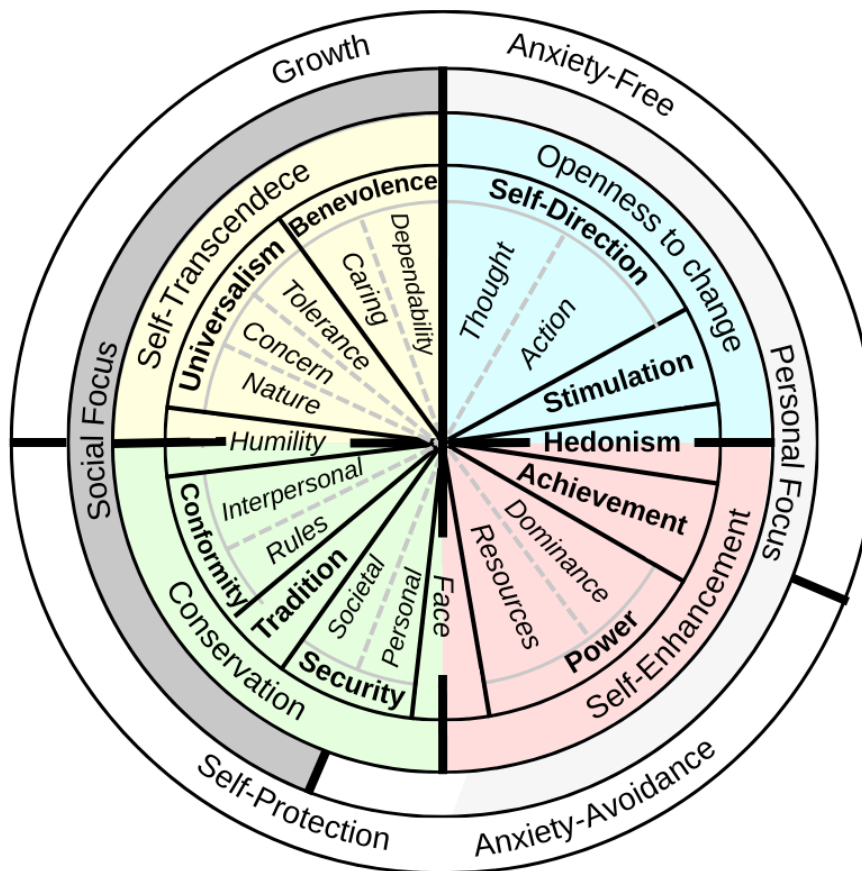
Our study may contribute to the development of comprehensive and complex explanatory models examining the relationship between values and volunteering, and it also facilitates a more nuanced understanding of the association between religiosity and volunteering.

Theoretical background

Schwartz's Value Model

Schwartz expanded his original value orientation model, which contained 10 basic values, to include 19 basic values (Schwartz et al., 2012, 2017; Schwartz & Cieciuch, 2022). Among other aims, the revised framework sought to provide greater explanatory power and to allow for more fine-grained subdimensions, which may be more advantageous in predicting other variables (e.g., political orientation or volunteering) (Figure 1).

Figure 1. Schwartz's 19 basic values model



Source: Adapted from Schwartz et al. (2017), authors' own editing.

Note. The values presented in bold originate from the earlier model comprising 10 basic values, whereas the values shown in italics represent the additional values introduced in the 19-value model.

Basic values can be grouped according to several criteria. In empirical studies, the ten basic values are often examined along two bipolar dimensions (Döring et al., 2015; Schwartz & Cieciuch, 2022; Schwartz & Sortheix, 2018). On one dimension, the values of Conservation (conformity, tradition, security) are opposed to Openness to Change (self-direction, stimulation), while on the other dimension Self-Enhancement (power, achievement) and Self-Transcendence (universalism, benevolence) form opposing value poles (see Figure 1) (Schwartz & Cieciuch, 2022).

The Relationship Between Religiosity and Values

The association between religiosity and values has been the focus of numerous empirical studies (Chan et al., 2020; Koscielniak et al., 2024; Luria & Katz, 2020). Research indicate that religiosity is a significant value-forming factor, but the relationship between religiosity and specific values is ambiguous. Most studies report a positive association between religiosity and conservative values (Carneiro et al., 2021; Chan et al., 2020; Schwartz, 2016), but some studies suggest that religiosity is also linked to values reflecting benevolence and concern for others' well-being (Koscielniak et al., 2024; Saroglou et al., 2004). Chan et al. (2020) found that religious individuals show stronger endorsement of the values of tradition, benevolence, conformity, and universalism, while placing less emphasis on hedonism, power, self-direction, stimulation, and achievement.

At the same time, findings in the literature vary depending on the level of value aggregation, the measurement instrument applied, and the national context. Using data from 19 countries in the ESS7 database, Koscielniak et al. (2024) measured value orientations through Schwartz's four higher-order value dimensions. In line with the hypotheses, the values of conservation and self-transcendence showed a positive relationship with religiosity, whereas openness to change was negatively related to it. Contrary to expectations, however, the self-enhancement dimension – which includes the values of power and achievement – also showed a positive association with religiosity, although this relationship was weaker than those observed for conservation and self-transcendence.

The Relationship Between Schwartz's Basic Values and Volunteering

Numerous studies provide evidence for the behavior-organizing role of values, both directly (Kesberg & Keller, 2018; Schwartz, 2016; Schwartz et al., 2017) and indirectly (Barni et al., 2011; Chan & Tam, 2016; Pastorelli et al., 2021; Roest et al., 2012). Volunteering as an activity, as well as its motivational background, is related to individuals' value preferences, however, there is no one-to-one correspondence between value preferences and volunteering. Specific basic values in Schwartz's model (e.g., benevolence or universalism) do not necessarily lead to volunteering, and individuals who engage in volunteer work may hold diverse value preferences. Nowakowska (2024) highlights that volunteering may arise not only from the intention to enhance others' well-being but also from motives related to increasing one's own well-being. This perspective is also reflected in the functionalist theory of volunteering (VFI) (Clary et al., 1998). Within Schwartz's framework, volunteering is most closely associated with self-transcendence values (Sagiv & Schwartz, 2022). However, volunteering may also be linked to conservation values (e.g., security, tradition, conformity), which likewise have a social focus. Moreover, values with a personal focus may also be present in the background of volunteering, such as self-enhancement (e.g., achievement) or openness to change (e.g., self-direction or stimulation).

The Relationship Between Religiosity and Volunteering

Religiosity is a multidimensional construct. Tienen et al. (2011) define collective religiosity as denominational membership and religious attendance, whereas individual religiosity comprises personal praying, religious worldview, spirituality, and the salience of religion in everyday life.

Empirical research indicates that participation in religious services enhances the likelihood of volunteering (Becker & Dhingra, 2001; Ruiter & De Graaf, 2006; Tienen et al., 2011; Voicu & Voicu, 2003; Wilson & Musick, 1997). Individuals who are active members of religious communities tend to volunteer more frequently than those without such affiliations. This pattern can be attributed to the role of religiosity as an indicator of social capital, as religious institutions foster networks that facilitate civic engagement (Pusztai, 2011). Religious attendance strengthens social integration, providing access to information about volunteer opportunities (Wilson, 2000).

Religiosity also exerts an intrinsic effect on volunteering. Religious individuals may view helping others as a moral obligation, reflecting value orientations that align closely with prosocial behavior. Wilson and Musick (1997) suggest that ethically guided behavior encourages volunteering, a relationship mediated by personal religiosity and prosocial values (Musick et al., 2000). Similarly, Son and Wilson (2011) found that generativity – the motivation to contribute to the well-being of others – mediates the relationship between religiosity and volunteer engagement. Empirical findings regarding the effects of individual religiosity are mixed. Paxton et al. (2014) reported that individual religious practices, such as regular praying, positively

influence volunteering. In contrast, Tienen et al. (2011) found no significant relationship between individual religious characteristics and volunteering.

Fényes (2015) showed that among higher education students, collective religiosity (for example, participation in religious youth groups) has the strongest positive effect on volunteering. The data showed also that the religious students' motivational background is mixed. In addition to altruism, personal and professional development, networking, and spending their leisure time usefully through volunteering were also important motivations for them.

Materials & Methods

In the theoretical section, we outlined the potential relationship between volunteering and values, and discussed the associations of religiosity with value orientations and volunteering. In the empirical section, we formulated two research questions and three hypotheses:

- 1) Which higher-order value dimensions are associated with volunteering?
- 2) What is the direct effect of religiosity and its indirect effect via values on volunteering?

H1: Religiosity is differently associated with four higher-order value dimensions identified by Schwartz (Koscielniak et al., 2024).

H2: The four higher-order value dimensions are significantly related to volunteering due to their influence on behavior (Schwartz, 2016).

H3: The indirect positive effect of religiosity on volunteering via values is smaller than the direct effect (Tienen et al., 2011).

Sample

We used data from the 11th wave of the European Social Survey (ESS). The ESS aims to provide representative samples of populations aged 15 and older in the 30 participating countries, with sample sizes ranging from approximately 800 to 1,500 per country. The survey also provides insights into value orientations, as well as political, environmental, and cultural attitudes. Trained interviewers were primarily employed for data collection. In this study the full sample ($N = 46,162$; 53.3% female, mean age of 51.6) was used.

Variables

Religiosity was measured with a single item: "How religious are you?" Respondents answered on a scale from 0 to 10 (0 = "Not at all religious," 10 = "Very religious"; $M = 4.75$, $SD = 3.13$).

Values were measured using the Portrait Values Questionnaire (PVQ; Schwartz et al., 2001), which contains 21 portrait descriptions rated on a six-point Likert scale based on how similar the respondent feels to the described person. Each of the 10 basic Schwartz values is measured with two items, except for universalism, which has three. We calculated the four higher-order value dimensions by averaging the items for each dimension. Internal consistency of the dimensions, assessed using McDonald's ω , was acceptable: the lowest reliability was for Conservation ($\omega = 0.691$) and the highest for Self-Transcendence ($\omega = 0.749$).

Volunteering was measured with a single dichotomous item: "Have you volunteered for a not-for-profit or charitable organization in the past 12 months?", where 18.7% of respondents answered "yes."

Data Analysis

Mediation analyses were conducted using the SPSS PROCESS macro v4.2, with 5,000 bootstrap samples (Hayes, 2022; Preacher & Hayes, 2004). The dependent variable was volunteering, the predictor was religiosity, and the four higher-order Schwartz value dimensions were mediators. Missing data (don't know or refused) were handled listwise, slightly reducing the sample size ($N = 42,489$). Due to volunteering being a dichotomous variable, non-standardized regression coefficients are reported (Hayes, 2022).

Results

We first examined how religiosity predicts respondents' value orientations. Results indicate that higher religiosity promotes identification with Self-Enhancement ($B = 0.008$, $SE = 0.002$, $p < 0.001$), Self-Transcendence ($B = 0.006$, $SE = 0.001$, $p < 0.001$), and Conservation values ($B = 0.072$, $SE = 0.002$, $p < 0.001$). In contrast, religiosity was negatively associated with Openness to Change values ($B = -0.029$, $SE = 0.001$, $p < 0.001$). Thus, religiosity primarily encourages the internalization of Conservation values, while also modestly

supporting identification with Self-Transcendence and Self-Enhancement values. The latter finding is noteworthy, as these two value dimensions are theoretically opposed according to Schwartz (2016). However, although the associations with Self-Transcendence and Self-Enhancement are statistically significant – likely due to the very large sample size – their coefficients are extremely small, limiting their practical significance.

Secondly, all value dimensions included in our model were significantly associated with volunteering. Volunteering was higher among respondents who place greater emphasis on Openness to Change ($B = 0.26$, $SE = 0.019$, $p < 0.001$) and Self-Transcendence ($B = 0.673$, $SE = 0.023$, $p < 0.001$). Conversely, stronger identification with Self-Enhancement ($B = -0.21$, $SE = 0.014$, $p < 0.001$) and Conservation values ($B = -0.473$, $SE = 0.019$, $p < 0.001$) reduced the likelihood of volunteering.

The results for indirect effects support our theoretical assumption that religiosity may influence volunteering through individuals' value orientations (Table 1). Religiosity had significant indirect effects on volunteering through Openness to Change ($B = -0.008$, $CI [-0.009, -0.006]$), Self-Enhancement ($B = -0.002$, $CI [-0.003, -0.001]$), Self-Transcendence ($B = 0.004$, $CI [0.002, 0.005]$), and Conservation ($B = -0.034$, $CI [-0.037, -0.031]$). Among these mediated effects, only Self-Transcendence had a positive effect on volunteering, indicating an encouraging influence. The strongest negative association was observed via Conservation. Overall, value changes associated with religiosity slightly reduced the probability of volunteering ($B = -0.04$, $CI [-0.043, -0.037]$).

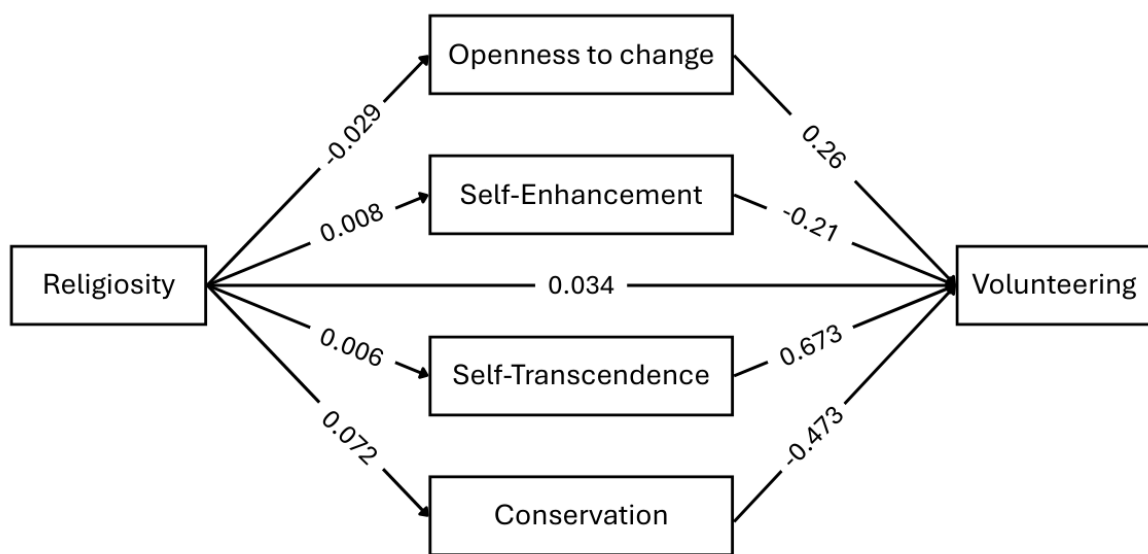
Table 1. Indirect effects of religiosity on volunteering through value orientations.

	Effects	BootSE	BootLLCI	BootULCI
Openness to change	-0.008	0.001	-0.009	-0.006
Self-Enhancement	-0.002	0.001	-0.003	-0.001
Self-Transcendence	0.004	0.001	0.002	0.005
Conservation	-0.034	0.001	-0.037	-0.031
Total	-0.04	0.0016	-0.043	-0.037

Note: All indirect effects are significant, as none of the 95% bootstrap confidence intervals include zero (BootLLCI and BootULCI).

The mediation analysis showed also a significant direct positive effect of religiosity on volunteering ($B = 0.034$, $SE = 0.004$, $p < 0.001$). The magnitude of this direct effect matches the effect through Conservation values in absolute terms but has the opposite sign. Overall, while religiosity's influence on values tends to reduce the likelihood of volunteering, its direct effect promotes it. Coefficients estimated in the mediation model are shown in Figure 2.

Figure 2. The results of the mediation model



Note. Reported values are unstandardized regression coefficients, as volunteering is a dichotomous variable while religiosity and values are continuous. The model explains 7.8% of the variance of volunteering.

Discussion

Previous research indicates that religiosity is a strong predictor of volunteering (Becker & Dhingra, 2001; Ruiters & De Graaf, 2006; Tienen et al., 2011). While some authors argue that religiosity promotes higher volunteering at the individual level, for example by shaping personal values, others highlight its community aspects, suggesting that volunteering is encouraged through the social networks and direct requests associated with religious participation.

In the theoretical section, we reviewed the relationships between religiosity, values, and volunteering. In the empirical part, we examined both the direct effect of religiosity on volunteering and the indirect effect through value orientations. The indirect effect relates mainly to individual religiosity, whereas the direct effect may reflect collective religiosity.

Our results show that religiosity is differently associated with individual values, in accordance with Hypothesis 1. It is positively associated with Conservation and negatively with Openness to Change, while associations with Self-Transcendence and Self-Enhancement are marginal. Our results show a highly similar pattern to those observed in earlier analyses based on the 2014–2015 ESS7 data (Koscielniak et al., 2024). Overall, religiosity is associated with values reflecting a need for security and stability, while it shows a negative relationship with values oriented toward seeking new experiences (Schwartz, 2016). In our study, the relationship between religiosity and the Self-Transcendence and Self-Enhancement value dimensions was negligible. This may be attributable to the level of aggregation of the variables, as well as to treating religiosity as a single, undifferentiated construct, without distinguishing between religious traditions (e.g., Islam, Christianity) or denominations. In a study comparing Protestant Christians and non-religious individuals, Christians demonstrated significantly higher identification with benevolence and universalism values, and lower endorsement of power and achievement values (Chan et al., 2020). Based on these findings, it can be assumed that the relationship between Self-Transcendence and Self-Enhancement values and religiosity may vary across religious denominations. This variation may have been attenuated in our study, which employed a robust sample including multiple denominations.

Secondly, all value dimensions were significantly related to volunteering, consistent with Hypothesis 2. Self-Transcendence had the strongest positive effect, whereas values linked to self-protection (Self-Enhancement and Conservation) reduced the likelihood of volunteering. In contrast, values associated with personal growth (Openness to Change and Self-Transcendence) increased it. Based on the VFI model, volunteering may also be driven by self-oriented motives (Clary et al., 1998), and thus, theoretically, Self-Enhancement values could also have shown a positive association with volunteering. However, in our study we measured only a specific form of volunteering, namely volunteering in not-for-profit or charitable organizations. This type of volunteering does not provide clear or direct benefits to the individual (e.g., it is not necessarily linked to potential career advancement). Rather, volunteering in such organizations places greater emphasis on promoting the well-being of others. Accordingly, in our study, the strongest positive association with volunteering was observed for Self-Transcendence values related to helping others.

Consistent with Hypothesis 3, the motivating effect of religiosity on volunteering operates less through individual value orientations. Among indirect effects, only Self-Transcendence showed a weak but significant positive influence. Most value changes associated with religiosity tended to reduce volunteering. However, a direct positive effect of religiosity on volunteering was observed, suggesting that collective religious practices – through collective norms, social embeddedness, and direct requests – may directly encourage volunteer participation. Our findings support the conclusions of the literature highlighting the resources embedded in religious communities and their norm-forming role (Fényes, 2015; Pusztai, 2011). Previous research has reported mixed evidence regarding whether individual religiosity promotes volunteering (Paxton et al., 2014; Tienen et al., 2011). Based on our results, religiosity is associated with individual-level value endorsements in a way that ultimately reduces the likelihood of volunteering. However, it is also possible that differences exist across religious traditions (e.g., Christianity, Islam) as well as across denominations (e.g., Protestant, Catholic). Accordingly, future research should examine the relationship between religiosity and volunteering separately along different dimensions of religiosity, and should also incorporate additional individual-level constructs beyond values, such as personality traits.

Conclusion

In our study, we demonstrated that volunteering, individuals' values, and religiosity are interrelated. The results indicate that the positive influence of religiosity on volunteering is less mediated by value formation and more

shaped by religious communities and social connections, which reinforce prosocial norms and provide a formal framework supporting individual engagement in volunteer work.

Limitations and further research plans

A limitation of our study is that, due to the constraints of the survey, religiosity and volunteering were each operationalized with a single item. The aggregation of values may also have led to loss of information. Using the full set of Schwartz's 10 or 19 basic values could have provided a more precise understanding of the value-shaping influence of religiosity and the role of values in volunteering. Another limitation is that our mediation model was relatively simple: we did not control for socio-demographic background variables, nor did we examine cross-national differences. Although we attributed the direct effect to participation in religious communities, this interpretation remains tentative until the variable is explicitly included in the model.

Future plans include examining these effects in a more complex model that incorporates background variables within this dataset. Additionally, we aim to replicate the analysis in other datasets where different forms and motivations for volunteering are measured alongside value orientations, in order to further explore the relationships identified in the present study.

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Data availability statement: The data used in this study are openly available on the European Social Survey (ESS) website. <https://www.europeansocialsurvey.org/data-portal>

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Research Paper

Learning communities in the various settings of lifelong learning

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Abstract

This paper examines the role and functions of learning communities across different contexts of lifelong learning, focusing on higher education, vocational education and training, learning in later life, and cultural learning environments. Drawing on sociocultural learning theories and the concept of communities of practice, the study interprets learning as a socially embedded process shaped through participation, interaction, and shared meaning-making. The paper applies a conceptual and interpretive approach to explore how community-based learning manifests across diverse educational and cultural settings. The analysis highlights that learning communities extend beyond formal educational institutions and constitute important spaces for knowledge creation, social participation, and identity formation. In higher education, they foster student integration and intergenerational learning; in vocational education, workplace environments function as collaborative learning spaces supporting professional socialization; in later life, community learning contributes to active ageing and social inclusion; while cultural institutions provide alternative arenas for non-formal and informal learning. The findings suggest that learning communities represent a key framework of lifelong learning by strengthening the social embeddedness of knowledge and supporting participation and personal development throughout the life course.

Keywords: learning communities; lifelong learning; community learning; higher education; vocational education and training; active ageing; cultural learning; informal learning; non-formal learning

Introduction

In the field of education and learning research, recent decades have seen a growing emphasis on approaches that interpret learning as a process embedded in social and cultural contexts. Alongside earlier conceptions of learning that focused primarily on individual cognitive processes, theoretical perspectives have increasingly emerged that link the construction of knowledge to community practices, social interactions, and the cultural environment. According to sociocultural learning theories, learning is not an isolated individual activity but a process in which individuals participate through social interaction, shared activities, and meaning-making processes (Vygotsky, 1978). Within this interpretive framework, learning is understood as a process of community participation and the co-construction of knowledge.

One key concept within this approach is the learning community, which refers to a learning environment in which participants develop their knowledge through collaboration, the exchange of experiences, and reflective dialogue. In learning communities, learners are not merely recipients of information but active contributors to the creation and sharing of knowledge. In this way, learning becomes a communal activity in which participants mutually influence each other's thinking, experiences, and interpretations.

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The concept of learning communities is closely related to the theory of communities of practice. According to Lave and Wenger (1991), learning can be understood as a specific form of social participation that is realized through engagement in shared activities. Communities of practice are groups whose members are connected through a shared domain of interest or activity, and who develop their knowledge and competences through joint practice. Wenger (1998) emphasizes that learning in this context is not merely a process of knowledge transmission but also an identity-forming activity, through which individuals gradually become active members of the community.

The significance of community-based learning becomes particularly prominent in the context of lifelong learning. The concept of lifelong learning is based on the idea that learning is not confined to formal educational systems but can be understood as a process that accompanies the individual throughout their entire life course. In this process, forms of learning that take place in informal or non-formal settings, often within community frameworks, also play an important role (Knowles, Holton & Swanson, 2015). In this sense, learning communities create environments in which knowledge is not generated exclusively through institutionalized educational processes but also through interactions and shared experiences among participants.

In higher education, learning communities primarily appear as tools for promoting collaborative learning and enhancing student engagement. The development of such communities can contribute to students' institutional integration, strengthen their academic motivation, and foster the development of critical thinking (Tinto, 2020). Within these communities, students engage not only in individual learning processes but also in shaping their knowledge through joint problem-solving and collaboration.

In adult education and vocational training, learning communities play a particularly important role in supporting experiential learning. Adult learning builds heavily on individuals' prior experiences, which become interpretable and shareable through collective learning processes. Andragogical approaches emphasize that the effectiveness of learning is significantly increased when learners are given opportunities to share their experiences and engage in collective reflection (Knowles, Holton & Swanson, 2015). In vocational education, this is especially evident in practical activities and professional socialization, where learners participate in shared practices and acquire various forms of professional knowledge.

Learning in later life is another area in which learning communities hold particular significance. Educational programs designed for older adults—such as Universities of the Third Age—not only serve knowledge transmission functions but also play an important role in strengthening social relationships, supporting active ageing, and promoting social participation (Formosa, 2014). These communities also provide opportunities for sharing experiences and fostering intergenerational learning processes.

Learning communities are not limited to formal educational institutions but also appear in various contexts of cultural learning. Museums, libraries, community cultural institutions, and other cultural spaces increasingly function as learning environments that promote community-based learning. In these settings, learning often takes place in informal and experience-based ways, where participants expand their knowledge through shared experiences and cultural practices (Falk & Dierking, 2013).

Hungarian academic literature has also devoted increasing attention to the study of community learning and learning communities. Kozma (2018) interprets learning communities as important arenas of social learning that contribute to the social embeddedness of knowledge and the strengthening of community participation. Similarly, Márkus (2021) highlights that community-based learning forms play a significant role in increasing adults' learning activity and supporting informal learning processes. Based on these perspectives, learning communities can be seen as a complex framework that plays an important role in the creation, sharing, and social embeddedness of knowledge across various educational and cultural contexts—from higher education through adult and vocational training to learning in later life and the sphere of cultural institutions.

The structure of the present study follows the logic of lifelong learning by examining learning communities across different educational and cultural settings throughout the life course. First, the paper explores higher education as a space where intergenerational relationships, student collaboration, and teacher–student interaction shape community-based learning processes. It then turns to vocational education, where workplace learning environments and dual training systems represent practice-oriented forms of community learning. The following section discusses learning communities in older age, highlighting the role of non-formal educational initiatives and social participation in active ageing. Finally, the study examines cultural institutions as broader spaces of informal and non-formal learning, where shared cultural experiences contribute to knowledge creation and community formation. Through these interconnected perspectives, the paper aims to demonstrate that learning communities constitute an essential framework of lifelong learning across diverse stages of life and institutional contexts.

Learning communities in Higher Education

Similar to learning activities in primary and secondary education, learning in higher education is not an isolated process, but takes place within various communities. Dialogue, interaction, influence, or counter-influence with these communities may be secondary compared to the individual characteristics, but they certainly contribute to the success or failure of learning. In higher education, students represent different generations, and can be classified into three large groups. Some students follow the traditional academic path, meaning they start right after high school, the literature identifies them as traditional students (typical age group between 18 and 24). The post-traditional or adult learners (over 25 years of age) generally fall into two categories: one of them take a few years off but still start college as young adults; still others are older when they begin studying for their first or subsequent degrees, often while balancing work and family life. The third group includes the lifelong learners (over 60 years of age) those who are studying at the end of their careers or as retirees.

The faculty also spans multiple generations, with both young researchers and senior faculty teaching students of various ages. Pusztai (2011) provides a thorough investigation of the nature of intergenerational and intragenerational relationships in higher education. In her opinion, fellow students are the most important agents in the socialisation process in higher education, as they offer social support to one another and circulate information; furthermore, they can also encourage commitment to academic goals and convey behavioural patterns. By analysing teachers as agents of socialisation, she points out that the role of teachers as information providers has changed through massification (the influx of large numbers of students into higher education), while in the teaching profession, which has become structured, there are different attitudes towards communicating expected norms. Students' relationships with their instructors have a major impact on the integration of adult students in higher education. Elmi (2020) draws attention to the fact that the instructor's support in developing community and motivation of students is important and facilitates academic success through emotional intelligence. Students demand and expect personal meetings, effective communication, partnership, and practical knowledge transfer. Their commitment to studying has a positive effect on the relationship with professors and vice versa (Engler 2017, and the relationship can also significantly influence the development of professional identity (Tomlinson & Jackson 2021).

Higher education students require the development and maintenance of personal relationships with their instructors within the academic context. Pusztai's (2015) research highlighted that the teacher-student relationship outside the classroom, along with the context of the class, defines academic progress even more. This is especially true for students of lower social classes, for whom faculty attention has a particularly strong impact on academic performance and institutional integration. According to the research of Wong and Chapman (2023) student satisfaction can be detected in three different types of relationships, namely student and student formal, student and student informal, student and instructor. Regarding the relationship between students and teachers, researchers emphasize the importance of feedback in collaborative work. (Hattie & Timperley, 2007; Simonsmeier et al., 2020)

For university student communities, the participation of multiple generations can be an advantage, as they can learn from one another. Older students benefit from their labor market experience, and they also effectively apply the competencies they have acquired through various social roles (employee, parent, child caring for their parents, etc.) in the world of learning (Schuetze & Slowey, 2000; Pusztai & Engler, 2014). In fact, Kasworm (1990) argues that the presence of older student groups has a positive effect on the learning attitudes and work ethic of younger generations.

Older students, who mostly study while working, are called non-traditional students, who form a special but significant group of university students, both in part-time and full-time education. Comparative studies of full-time and part-time students highlight the adult students' excellent time management skills (Richardson-King 1998), their ability to maintain self-directed studying habits (Schuetze-Slowey 2000, El-Amin 2020), and their long-term dedication (Covas & Veiga 2021; Arjomandi et al., 2018). Students who defined themselves as non-traditional because of their age, employment and parenting responsibility, had higher resilience compared to traditional students (Chung et al., 2017). In addition to analyzing changes, an important question is whether higher education institutions should respond to changing needs and processes, and if so, how they should relate to the education of the new student society in practice.

Senge (1997) proposes a model in which institutions involve the potentials of the economy in education through practical and, to a lesser extent, theoretical training. Proposing the renewal of higher education, he criticizes those whose knowledge operates in a closed system, illustrating the complete isolation from the outside world with large lecture halls. According to the results of Gilardi and Guglielmetti (2011) non-

traditional students put more energy into informal contact outside formal teaching situations than traditional students do.

The growing presence of adult students has also attracted the attention of researchers, who also perceive a change in the role of higher education due to their increasing proportion. Part-time students form a heterogeneous society within the walls of universities and colleges not only compared to traditional students, but also due to differences in relation to each other (e.g. different ages, occupations, positions, work experience, student pathways, individual backgrounds, etc.). The changed, diverse compound of students creates a different milieu to universities, especially institutions with a long tradition.

Higher education institutions welcome their unusual students in different ways. Sometimes, certain groups are not allowed to prevail, the level of subsidies is quite limited, and the institutions do not show flexibility in response to these students' needs. Other institutions, especially smaller ones are welcoming new students with short-term but diverse trainings and individualized methods. The educational institutions should consider the needs of adult students, for example, the crediting of their previously acquired knowledge and their informal knowledge, in particular, self-directed learning, and their information and communication technological background. (Schuetze & Slowey, 2000) The changing role of higher education institutions arises in connection with formal training in higher education. Higher education institutions, especially universities, have been set up to provide small elite training and conduct research, while adult education must provide practice-oriented training, sometimes for disadvantaged groups.

The extent of students' studying aspiration, effectiveness, and integration is likely to be increased if adequate resources are also available within higher education. It is also in the interest of higher education institutions to provide these resources.

Older students are often at higher risk of dropping out, especially if they work regularly, are raising children, are caring for an elderly family member, or have had a history of failure in their previous schools. (Behr et al., 2020; Fragoso et al., 2013; Engler, 2013; Sánchez & Elias, 2020; Pusztai et al., 2022; Venegas & Muggli, 2020) On the one hand, student drop-out can be reduced, and on the other hand, part-time student supply can be ensured, because with the approach and practice of the institution, it will be attractive in the higher education market. By considering their needs, teaching arrangements, teaching methods, and services can be improved, which also has a positive effect on the former factors. Through an inclusive approach, the institution can successfully integrate students and can contribute to creating opportunities. Thus, the heterogeneous student society finds its place in the academic space, makes a successful investment in human capital, expands its social and cultural capital, all of which creates a favourable studying aspiration for its future investments (Engler, 2017). While higher education learning communities are mainly shaped by relationships between students of different ages and the bond between teachers and students in an academic setting, another type of community learning develops in vocational education. Here, the workplace itself serves as the main learning space. In the dual training system, community is not defined by lecture halls or seminar rooms but by the shared activities in a working environment. This moves the focus of community from academics to the professional world.

Community-Based Workplace Learning in Vocational Education

In vocational education, during the implementation of training and learning processes, considered in historical terms (the ancient collegium, the medieval guild, the early modern manufactory, the modern factory industry), practice-oriented training and the related learning forms and processes that are realized through it have predominantly formed an integral part of the entire educational-learning spectrum. Education that is close to reality, knowledge transfer and acquisition that simulates reality as closely as possible is one of the most important areas of vocational education, and as such, it has often been and continues to be a subject of debate to this day.

The dual training system in the Hungarian vocational education has a significant history. In the last quarter of the 19th century, the demand for it was formulated at a state level, which had already been recognized earlier by the large industrial companies created at that time (e.g., the Ózd ironworks). In the vocational training being established (apprenticeship training), alongside theoretical education, practical training played a significant role from the beginning. This often-changing dual nature has accompanied Hungarian vocational education over the past one and a half centuries. In post-2010 education policy, significant emphasis was placed on the newly reorganized dual secondary vocational education (Vörös, 2014).

Over the past one and a half decades, on the one hand, more and more companies have become open to hosting young people studying vocational training and have registered themselves with the help of the chambers as training sites. On the other hand, as a result, more and more students are able to participate in dual training. Their numbers have continuously increased over the years; from 37,000 at the starting year, 2012, the number of participants in dual training has risen to over 50,000 (the data are not precise due to the uncertainty of the sources). This is a triangular relationship; school (student) – chamber – company (training site) promises benefits for all parties involved (Györgyi & Piacsek, 2025). Students enter a real or at least reality-simulating workplace environment (training workshop), and entirely different learning processes are initiated and realized than within the framework of school education.

In dual training, many forms of learning appear in workplace training and learning processes that are less common or not at all characteristic in other learning contexts. Learning by doing, stop and go model, instant learning, trial and error learning, project-based learning, problem-based learning, experiential learning, embedded learning, peer learning, group learning, mentored learning, learning by doing, informal learning, self-directed learning, autonomous learning provide the form and process diversity of learning. We can establish that the world of work and the tasks to be solved create their own forms and processes of learning in such a way that the most useful and promising learning opportunities are articulated in each workplace context. The lasting and organic integration of these learnings into an individual's body of knowledge and expertise is precisely provided and ensured by active behavior and the involvement of various senses in learning (CEDEFOP 2025; Evans, Bound & Erdei, 2022).

Workplace training settings function as hotspots of knowledge transfer in vocational education. At these points, previously learned theory meets and clashes with its application. The training workshops excellently support the paradigm shift in education and learning that has already taken place. Learning emerged from the paradigm shift the winner, and the training workshops are much more about learning activities (individual and communal) (Evans et al., 2006).

Workshops go beyond physical attributes and characteristics. The physical space of workshops not only serves for placing tools and objects and providing space for the production process, but it should also be interpreted as a learning space. Workshops model real work processes in a practice-oriented, sometimes playful way. Learning that takes place in the workshop, as part of the theoretical construct of workplace learning, ensures knowledge transfer. Part of this knowledge transfer involves the learner testing, applying, and gradually developing into a skill the theory they possess. On the other hand, the theory is also tested in practice. Furthermore, and at least equally importantly, physical contact with raw materials and machines, tools (technology) also takes place (Martínez, Izquierdo & Sánchez, 2022).

Personality development that takes place in the workshop, beyond the acquisition of concrete knowledge, also has a strong socializing effect. The young learner experiences the work environment and through this can form an idea of the professional tasks, emerging challenges, and exciting opportunities that await them later. This is work socialization, the characteristics of which can distinctly shape the personality of the young person learning the profession. Thus, the practical period, the activities carried out during it, and the experiences gained are about much more than just professional development.

The training and learning activities of dual education implemented in the workshop can also be examined from the perspective of organizational learning. The accumulation, strengthening, and intensification of workplace learning can create a learning organization. The essence of a learning organization is that, although learning takes place through the learning activities of individuals within the organization, learning is not only shaped individually; the knowledge accumulated as a result of various processes and forms (see the previously mentioned forms of learning) is also incorporated into the fabric of the organization (Elkjaer & Wahlgren, 2005).

In the practical part of secondary vocational training, which is currently in effect, it is also characteristic that students practice and learn the often manual operational processes that were typical of previous decades. According to mentors and practice supervisors, the lack of knowledge of the tools and procedures representing the earlier levels of technology from past decades can strongly negatively affect the students' later experiential knowledge.

In the dual training system of domestic vocational education – and higher education, which is not examined here – the emphasis is on practice-orientation, acquiring applicable knowledge, practicing it, and on students applying the knowledge and skills they possess in real working conditions. The physical space of the workshop, the tools and technologies placed there, and the objects that support learning and working all contribute to

personality development. This physical space not only supports the individual's personal learning activities, but also, the communication between the group within this space ensures community-based learning.

Learning Communities in Older Age

Demographic data from the 21st century clearly indicate an increase in life expectancy, which directly results in a growing proportion of the elderly population. Experts draw attention to the concept of successful ageing, emphasizing that individuals in this age group should find activities and communities that bring them joy. Several indicators have been developed to measure its effectiveness; among these, the most commonly used is the Active Ageing Index (AAI), which formulates the framework of successful ageing. Within this index, employment accounts for 35%, social participation (including family and community roles) also for 35%, independent, healthy and secure living for 10% (including physical activity, physical and financial security, access to healthcare services, and lifelong learning), and the enabling environment (including life expectancy at older ages, healthy life expectancy, mental well-being, social connections, learning capacity, and the use of information and communication technologies) for 20%. The index highlights that, from both an individual and societal perspective, it is advantageous if the ageing population can maintain self-sufficiency for as long as possible and adapt to communities as well as to rapid social and environmental changes. It also demonstrates that learning, as a community-based activity, plays a particularly significant role in this stage of life (UNECE, 2025).

Learning in older age typically occurs through non-formal and informal means.

Table 1. Percentage of participation in formal and non-formal education among the population aged 25–64 in the past 12 months, by age group (2016–2022)

Age groups	2016	2022
25-34	63,2	66,3
35-44	60,9	65,3
45-54	60,3	65,2
55-64	38,2	50,6

Source: KSH 2023

The data indicate that participation in learning increases proportionally with age. This is particularly evident among those over 55, where the most significant positive change can be observed during the period under review. This can be attributed, on the one hand, to the increasing educational attainment of the population aged 55 and over and, on the other hand, to the substantial growth during the period under study in the number of community activities specifically designed for senior participants, which resulted not only in greater diversity of content but also in increased formal and methodological diversity.

In Hungary, programs for older adults were for a long time primarily organized in retirement clubs within community cultural centers and in organizations dealing with elderly affairs, typically on an occasional basis. The primary objective was not learning or knowledge acquisition; rather, participation was motivated by social functions, togetherness, and shared conversations. This form of communal engagement remains popular today, as there are hardly any settlements without clubs or associations specifically established for this age group. In these settings, informal learning predominantly takes place.

From the perspective of knowledge acquisition and competence development, domestic programs can be categorized into two types based on their content. Public lecture-type programs (often referred to as “open universities”) are characterized by open and flexible curricula, while competence-based programs specifically aim to develop the skills necessary for independent living and social participation among older adults. Their goal is to help individuals preserve, develop, and activate those abilities that enable them to lead a full life. In 2025, competence-enhancing senior education programs operated in 35 cities across Hungary. A shared characteristic of these initiatives is that they provide both learning and community opportunities within a non-formal learning framework (Türmerné, 2025).

Their naming conventions are also diverse. The term “University of the Third Age” is frequently used. The concept of the “Third Age”, the period between the Second Age (adulthood) and the Fourth Age, characterized by dependency and illness, originated in France but became widespread through the work of Peter

Laslett. During this phase, individuals do not work anymore but remain healthy, feeling the need to participate in communities and to maintain their abilities through active engagement (Karp, 2013).

Terms such as Senior University, Senior Academy, and Retirement Academy are also commonly used, indicating that many of these programs are organized by or in cooperation with higher education institutions (Kerülő 2024). Nearly all institutions articulate goals related to senior education that include fostering activity and promoting lifelong learning. Activity is understood as the development of new competencies, and through the expansion of knowledge, these programs aim to preserve participants' cognitive vitality. They also consider it important to support the development of learning abilities that address cognitive and affective factors specific to older learners and mitigate the adverse effects of age-related changes (Kovács et al., 2020).

From the perspective of higher education pedagogy, these courses most frequently apply a learner-centered approach and problem-based learning practices. The learner-centered approach seeks to actively engage participants and stimulate critical thinking (Kálmán, 2013). At the same time, emphasis is placed on problem-based learning, with courses typically organized around the resolution of a specific problem.

In its 2002 document, the WHO defined the concept of active ageing, stressing that in order to maintain cognitive and mental capacities in older age, continuous learning, adaptability to social and environmental changes, and openness are essential (WHO, 2002).

Non-formal educational programs offered to seniors are typically learning occasions in which both participant well-being and instructor well-being can be anticipated (Kun & Gadanez, 2020; Kun & Szabó, 2017). According to Wlodkowski's model of motivational conditions for learning, a motivating learning environment consists of four mutually reinforcing elements: establishing inclusion, developing positive attitudes, enhancing meaning, and engendering competence. The model highlights that learning motivation is significantly influenced by the environment, the quality of relationships between teachers and participants, cooperation within the group, personal interest, a positive attitude toward learning, and the integration of new knowledge with prior experience (Wlodkowski, 2008).

At the same time, all research examining learning motivation among older adults emphasizes that while acquiring new knowledge and commitment to personal development are important, the relationships formed within the group and the sense of community are at least as significant, if not more so. For this reason, community-based learning can become an ideal opportunity for ageing participants, as learning at this stage of life is not merely a matter of individual development, but also of social participation, serving as a response to social isolation. (Sipos, 2016; Kerülő, 2024, Türmerné 2025).

Organized programs for older learners are one way institutions respond to the need for community involvement later in life. However, learning communities at this and all other life stages are not limited to formal or semi-formal programs. Cultural institutions, such as museums, libraries, community houses, and performing arts organizations, provide a different learning environment. In these spaces, community-based knowledge is created outside of structured educational environments.

Learning communities in cultural institutes

Cultural learning is a form of informal and non-formal learning that occurs through a society's cultural institutions and embedded cultural tools and systems. It has existed since the dawn of humanity and the roots of its study stem from trends in cultural sociology. Several researchers have dealt with the definition and interpretations of culture (Maróti, 2005; Kroeber & Kuckhohn, 1952). The UNESCO World Culture Report (1998) attempted to define the concept of culture when compiling cultural indicators (Terry McKinley, Amartya Sen, Prasanta Pattanaik), which is a rather broad definition: "the way in which people live together, interacting and cooperating with each other – coupled with how they justify such interactions with some system of beliefs, values and norms." (Bellavics, 2000, p. 307). Culture here is a descriptive and non-normative term, meaning human development. The indicators in the report aim to examine human development from a cultural perspective.

In our interpretation, cultural learning is a non-formal and informal form of learning realized through the broad institutional system and tool system of culture, which is present throughout the individual's life with different intensity and use of tools. The institutions of cultural learning are houses of community education, museum and library institutions, various performing arts venues (theatre, cinema, circus, music institutions, dance institutions, amusement parks etc.), sports organizations and the media (press, radio, television, internet). The tool system of cultural learning is widely available, from passive, receptive genres (e.g. theatre performance, puppet show, attending a concert or sports match, watching television, listening to the radio) to

active, creative genres (e.g. membership in an amateur art group, learning traditional dance, leisure sports activities, sharing internet content etc.). Different forms of cultural learning are constantly present in the life of an individual, with varying activity at different ages. This presence can occur as an autonomous, conscious learning process, when the individual, of his or her own decision, begins to learn something with the help of the cultural institution and tool system for the purpose of self-development, in a guided form (non-formal learning) or in a self-directed manner (informal learning) (Forray & Juhász, 2009). But the presence of cultural learning can also be observed as a spontaneous, involuntary process, when the individual visits a cultural institution randomly or for non-learning purposes (e.g. entertainment), and is enriched there by cultural learning in an unplanned way.

In addition to primary research, we can learn about the international and Hungarian situation of cultural learning from statistical sources. The European Union Cultural Statistics contains statistical data by country, including Hungary. Its data target economic indicators, primarily relating to cultural consumption (European Union, 2011). The UNESCO Institute for Statistics also regularly compiles cultural statistics (UNESCO Institute for Statistics, 2009). In 2006, the UIS sent a report to developing countries to test the EU model (Eurobarometer) on cultural activities. The report defines the applications of culture as follows:

- “Home-based” (e.g. watching TV, reading, using the Internet),
- “Going-out” (e.g. visiting the cinema, theatre, museum),
- “Identity building” (e.g. amateur cultural activities).

The definition of culture formulated by UNESCO's World Culture Report (1998) links the following indicators to cultural activities:

- performing arts: attendance, foreign tours, institutions, performances and attendance,
- archives, museums: archived materials in meters, visits, attendance projected on staff, museum attendance, attendance projected on staff.

In Hungary, the Central Statistical Office requires mandatory statistical data provision from cultural institutions, this is the so-called Cultural Statistics (KultStat, 2026). The main available indicators are about institutions and cultural consumption. Based on the main data for 2025, in Hungary, nearly 12 thousand cultural data providers (institutions and civil organizations together) had 34 thousand employees conveying cultural learning opportunities to more than 113 million visitors (as many of them participated in regular programs, e.g. club series).

Shared cultural experiences, interactions, programs, and most importantly, regular cultural communities all support community learning processes: in addition to the non-formal learning opportunities of culture, they initiate informal, autonomous learning processes. In these processes, the planned and organized (non-formal) learning opportunities of cultural learning (for example, regional dance learning under the guidance of a professional in a folk dance community) are complemented by the spontaneous and autonomous learning processes of informal learning (thus, in the folk dance community mentioned in the previous example, the participants learn autonomously about dance from each other, and spontaneously about behavior, communication, and relationships with each other, among other things) (Forray & Juhász, 2009).

Conclusion

Learning communities play a decisive role in lifelong learning by connecting individual learning processes with social participation, shared experiences, and collaborative knowledge construction. The examples presented in this study demonstrate that community-based learning appears in diverse forms across different stages of life and educational settings. In higher education, learning communities strengthen academic integration and intergenerational cooperation; in vocational education, workplace environments provide practice-oriented and experience-based learning opportunities; in older age, community learning supports active ageing, well-being, and social inclusion; while cultural institutions create informal and non-formal spaces for autonomous and collective learning. Despite the differences between these learning contexts, they share common characteristics: interaction, participation, experience-sharing, and the social embeddedness of knowledge. Consequently, learning communities can be interpreted not only as pedagogical frameworks but also as important social structures that contribute to personal development, community cohesion, and the sustainability of lifelong learning processes in contemporary societies.

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Book Review

Academic life in shade and light: Snapshots of well-being

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Berecz, R. (2026). Academic life in shade and light: Snapshots of well-being [Review of the book *Well-Being of Academic Staff in Rapidly Changing Higher Education. A Focus on Central and Eastern Europe*, by G. Pusztai & K. Kovács, (Eds.)]. *Central European Journal of Educational Research*, 8(1), 172–174. <https://doi.org/10.37441/cejerr/2026/8/1/16992>

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Introduction

Over the past few decades, changes in higher education have transformed the work of those pursuing academic careers. The increase in student numbers has broadened their roles: in addition to their teaching and research activities, they now also must deal with grant applications and coordination, mentoring, helping students catch up, and motivating those who are falling behind. At the same time, the managerial approach that is gaining ground in higher education institutions and the internationalization of education and research have further shaped the work of teachers. However, the expectations associated with their various roles and activities place great pressure on academic staff, which can be a significant source of stress in their lives. This can not only have a negative impact on their health and well-being but can also determine their job satisfaction and performance (Kovács & Pallay, 2024, Pallay et al., 2024). These changes have led to the publication of a volume edited by Gabriella Pusztai and Klára Kovács, which examines the well-being of academic staff in the rapidly changing higher education systems of five Central and Eastern European countries (Hungary, Slovakia, Ukraine, Romania, and Serbia) that share common historical roots.

The editors of this volume are recognized, leading figures in the academic community. One of the editors, Prof. Dr. Gabriella Pusztai, is the director of the Institute of Education Science, the head of the Doctoral School of Humanities and the Center for Higher Education Research and Development (CHERD-Hungary) at the University of Debrecen, where she also serves as a senior researcher. Her work focuses on the fields of education and sociology. Among her main research areas, the cultural and social capital resources underlying student and school performance, as well as the examination of the educational trajectories of religious and national minorities, are particularly noteworthy. Her outstanding professional expertise serves as a guiding compass in academic discourse and within the CHERD-H research group; through her active research, she continuously shapes and develops the field (Pusztai et al., 2025, Pusztai et al., 2025, Pusztai et al., 2024, Pusztai et al., 2022).

The other editor of the volume, Dr. habil. Klára Kovács-Nagy is a habilitated associate professor at the Institute of Education and Cultural Studies at the University of Debrecen and a senior researcher at the Center for Higher Education Research and Development. Her research focuses on examining the social, institutional, and individual factors that determine the sports habits of students in the Carpathian Basin (Kovács & Pusztai, 2024). In addition, he examines the impact of physical activity on well-being, health behaviors, and academic performance (Kovács et al., 2025). The results of his dedicated research work also form the basis of this volume, which is based on the study titled *Central and Eastern European Teachers in Higher Education (CEETHE)*, which he coordinated as principal investigator.

Review

The volume can be placed in a series of books on higher education research that discuss the challenges faced by those working in higher education. At the same time, the volume in our hands not only discusses the well-

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known challenges affecting higher education, but also new challenges affecting the work of teachers and researchers, which is one of the important novelties of the volume. It puts these new challenges into a timely perspective by analyzing the impact of managerial values and practices on various dimensions of organizational commitment and employee well-being. This volume is the result of high-quality collaborative work conducted by lecturers and former doctoral students at the University of Debrecen's Institute of Education and Cultural Studies, together with researchers who are members of the CHERD-Hungary research group from Hungary and abroad. This collaborative effort is based on data from a qualitative and quantitative survey conducted as part of an international research project (CEETHE 2023), which examined the well-being, working conditions, and performance of academics in the five participating countries.

The editors introduce the publication by outlining the challenges facing higher education and the situation in the Central and Eastern European region. They then provide an overview of the research methodology, and the volume is subsequently structured into two main chapters. The first chapter presents the five countries studied from a comparative perspective, while the second chapter examines the background and effectiveness of teachers' work through empirical studies. In the first chapter, the five comparative studies analyzed the main higher education statistics and the legal environment of education policy in each country. In their analysis, the authors used descriptive and comparative statistical analysis methods, facilitating the interpretation of the data with comparative diagrams and tables.

The first paper, in the first chapter examines university teaching staff in Hungary. The analysis guides the reader through the development of the higher education system after the change of regime, and then presents some characteristics of academics (e.g., age, gender) in an international comparison. The second study provides an insight into the higher education system in Slovakia providing evidence of the impact of the post-communist system on current trends in higher education by analyzing the current situation of academic staff. The study also discusses current challenges such as the integration of students with special educational needs and the need for more inclusive higher education. The third study in this chapter focuses on the Romanian higher education system, where the focus is on the development of higher education and the status of academic staff in the post-communist period. The aim of the analysis is to identify the prevailing trends and to explore the international and national social, economic, and political factors that have driven these changes. The study on the Romanian higher education system is followed by the fourth study on Serbian higher education, which finds that Serbia's higher education system has been significantly transformed by reforms in higher education, and that these changes have intensified since the 2005 Bologna reforms. According to the authors, the reforms were aimed at successful integration into the European Higher Education Area, but the problem of achieving full integration remains, and their effectiveness in terms of the quality of education is also debatable. The study fills a gap by examining the impact of regulations on the appointment and employment status of academics. The last study in the first chapter provides a comprehensive overview of the higher education system in Ukraine, examining the modernization and restructuring of higher education in the period following the transition and Ukraine's independence.

The second chapter comprises six empirical studies that, as noted above, examine the well-being, working conditions, and effectiveness of academics. The first study in this chapter is structured around the concepts of educational effectiveness, institutional culture, and performance evaluation systems. The most important finding of the research is that the introduction of performance evaluation systems has different effects on teachers in different institutional culture. The second study focuses on examining the well-being of academics. According to the results of this research, time- and energy-intensive pedagogical activities do not negatively affect the well-being of academics. Another important finding of the study is that pedagogical activities can only be carried out effectively when academics have a high level of well-being. The third study also made interesting findings regarding the factors that limit and encourage the international mobility of academic staff. An important finding of their research is that academics' mobility varies between fields of study, with academics in the medical and healthcare academics staff being less mobile. Demographics, gender and age are also key determinants of international mobility. The next study examines the factors influencing the research productivity of teachers, based on the job demands-resources model. An important finding of the research is that older men in higher positions, those with academic degrees, those working in the social and economic sciences, and senior academics are the most productive.

In contrast, the results of the fifth study, which focused on work-life conflict, show that more than one-third of those working in academia feel that their personal needs are pushed into the background due of their work, and a third report that they even sacrifice their private lives. Based on cluster analysis, the final study, which examines the cultural consumption habits of academics, concludes that the cultural consumption patterns

of Central and Eastern European academics are similarly positive to those of culturally passive and culturally diverse elite groups.

Conclusion

The volume entitled *Well-Being of Academic Staff in Rapidly Changing Higher Education* reflects on both past and present challenges. Its main value lies in the fact that it not only presents the changes that have taken place in the past but also reflects on the current challenges of academic work in higher education. The volume provides an opportunity for an international audience to gain a comprehensive understanding of the challenges experienced in the region and the diversity of academic work in higher education. At the same time, it highlights that an academic career today requires meeting institutional expectations and international performance standards while maintaining a significant balance between work and private life, which substantially shapes the well-being, mental health, and performance of academics.

We recommend the studies in this volume to all academics, and those working in higher education who would like to gain a deeper insight into the background of everyday challenges in higher education and are looking for practical suggestions for overcoming them. In addition, we recommend this volume to policymakers responsible for higher education, institutional and department leaders, and researchers working in this field, so that the higher education research presented in this volume can contribute to the necessary reforms to ensure that teachers can work and create in safe, inspiring, autonomous, relatively stress-free, and healthy conditions.

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