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PREDHOVOR K ŠPECIÁLNEMU ČÍSLU

Miroslava Knapková

Rok 2022 predstavoval pre európske vysoké školstvo zásadný medzník. Agresia Ruskej federácie voči Ukrajine vyvolala bezprecedentný pohyb obyvateľstva, ktorého súčasťou boli aj desaťtisíce ukrajinských študentov nútených prerušiť svoj študijný či profesijný život. Európske univerzity sa okamžite ocitli v situácii, ktorá presiahla rámec bežnej internacionalizácie a vyžadovala komplexné riešenia v oblasti inklúzie, podpory a adaptácie študentov-utečencov. Práve v tejto súvislosti vznikol projekt EIUS: European Inclusion of Ukrainian Students, ktorého hlavným cieľom je vytvoriť vedecky podložené poznatky o podmienkach adaptácie, potrebách študentov a efektivite systémových opatrení v rôznych európskych krajinách.

Špeciálne číslo časopisu Mladá veda, ktoré máte pred sebou, je jedným z výsledkom tohto projektu. Predstavuje ucelený súbor teoretických, analytických a empirických príspevkov, v ktorých sa prelínajú právne, sociologické, ekonomické, pedagogické a interkultúrne perspektívy.

Cieľom tohto špeciálneho čísla je poskytnúť viacvrstvový pohľad na inklúziu ukrajinských študentov, ktorý presahuje rámec okamžitej humanitárnej reakcie a ponúka hlbšie porozumenie dlhodobým procesom – od jazykovej a sociálnej adaptácie až po legislatívne aspekty, ekonomické dopady a subjektívne skúsenosti študentov v rozličných európskych kontextoch.

Tematicky možno texty zaradiť do niekoľkých hlavných oblastí:

- Makroúroveň európskej a národnej reakcie na príchod ukrajinských študentov – právne, inštitucionálne, politické a spoločenské rámce; kritické hodnotenie postupov jednotlivých krajín.
- Mikroúroveň univerzitných opatrení a každodenných integračných procesov – skúsenosti študentov, zamestnancov a podporných tímov; opatrenia fakúlt a univerzít.
- Sociálno-psychologické a kultúrne dimenzie integrácie – jazykové motivácie, pocit prijatia, adaptačné stratégie, sociálna izolácia a interkultúrna komunikácia.
- Ekonomické a pracovnoprávne súvislosti – dopady vojny na trh práce, prístup študentov a utečencov k zamestnaniu, pracovnoprávne obmedzenia a bariéry.
- Inovatívne prístupy k podpore inklúzie – storytelling, hodnotovo orientované prístupy, právo na vzdelanie, prevencia izolácie a posilňovanie komunitnej kohézie.

Spolu tieto články vytvárajú konzistentný vedecký celok, ktorý približuje rôzne dimenzie príchodu ukrajinských študentov do Európy. Od analytických a právnych štúdií až po empirické výskumy a prípadové štúdie prinášajú autori komplexné poznatky o výzvach, potrebách aj možnostiach, ktoré tento historický moment prináša európskemu vysokému školstvu.

Zároveň jednotlivé príspevky poukazujú na to, že úspešná inklúzia nie je len technickým procesom, ale vyžaduje si hodnotovo orientovaný prístup, rešpektovanie kultúrnych špecifík, systematickú podporu duševného zdravia a najmä citlivú, na dôkazoch založenú akademickú politiku.

V mene riešiteľského tímu projektu EIUS vyjadrujem poďakovanie všetkým autorom a recenzentom za ich odborný prínos a mimoriadne úsilie. Verím, že toto špeciálne číslo prispeje k lepšiemu porozumeniu procesov, ktoré formujú európsky akademický priestor v období významných spoločenských zmien, a stane sa podnetom pre ďalší výskum aj praktické opatrenia v oblasti inkluzívnej internacionalizácie.

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GENERATION Z IN HIGHER EDUCATION: CHALLENGES AND OPPORTUNITIES FOR TEACHING ADAPTATION

GENERÁCIA Z VO VYSOKOŠKOLSKOM VZDELÁVANÍ: VÝZVY A MOŽNOSTI ADAPTÁCIE VÝUČBY

Barbora Mazúrová, Marta Valihorová[1], Martina Chrančoková, Ľudmila Mitková[2]

Barbora Mazúrová pôsobí na Katedre ekonómie Ekonomickej fakulty Univerzity Mateja Bela v Banskej Bystrici, v súčasnosti ako vedúca katedry. Vo svojej vedeckovýskumnej činnosti sa venuje problematike trhu práce, konkrétne dochádzaniu do a zo zamestnania. Marta Valihorová pôsobí na Katedre odbornej jazykovej komunikácie, na Ekonomickej fakulte Univerzity Mateja Bela v Banskej Bystrici. Vo svojej pedagogickej a vedeckovýskumnej činnosti sa zameriava na metodiku výučby jazykov, obchodnú angličtinu, cestovný ruch a hotelierstvo. Martina Chrančoková pôsobí na Fakulte managementu, Univerzita Komenského v Bratislave. Jej výskum je zameraný na aplikovanie kvantitatívnych a kvalitatívnych metód do praxe a do súčasného diania v spoločnosti. Konkrétne sa zameriava na výskum študentskej migrácie a jej dopad na spoločnosť. Ľudmila Mitková pôsobí na Fakulte managementu, Univerzita Komenského v Bratislave od absolvovania doktorandského štúdia v roku 2011. Primárne sa venuje problematike rodovej rovnosti, rovnosti príležitostí a generačnej výmene na trhu práce, či už vo svojich publikáciách ako aj pri vedení záverečných prác.

Barbora Mazúrová works at the Department of Economics, Faculty of Economics, Matej Bel University in Banská Bystrica, currently as the head of the department. In her scientific and research activities she deals with the labour market issues, namely commuting to and from work. Marta Valihorová is affiliated with the Department Department of Language Communication in Business at the Faculty of Economics, Matej Bel University in Banská Bystrica. Her research interests are Methodology of language teaching, Business English, Tourism and hospitality. Martina Chrančoková works at the Faculty of Management, Comenius University in Bratislava. Her research focuses on applying quantitative and qualitative methods to practice and current societal developments. Specifically, she examines student migration and its impact on society. Ľudmila Mitková has been affiliated with the

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Faculty of Management, Comenius University in Bratislava, since completing her doctoral studies in 2011. Her primary research interests include gender equality, equal opportunities, and intergenerational exchange in the labour market, both in her publications and in the supervision of final theses.

Abstract

The university environment today is strongly shaped by Generation Z, which differs from previous generations in several characteristics. It is the first generation to grow up in a digital environment, where information and communication technologies constitute an integral part of everyday life. This reality influences not only how young people perceive the world but also how they approach communication and learning. Research as well as teaching practice indicate that members of Generation Z are technically skilled, quick to adapt to new trends, and actively engaged in the global network. They prefer communication through digital media and are accustomed to short, visual, and structured forms of content. These communication patterns are also reflected in their learning process. Many students struggle with maintaining concentration when working with extensive texts and find it more difficult to build gradually interconnected knowledge, which may negatively affect their academic performance. Adapting to the university environment is therefore often challenging and can result in exam failures or even premature dropout. International students, represent a specific group particularly from Eastern Europe, who, in addition to the mentioned challenges, face a language barrier. It is expected that due to the current situation in Ukraine, their number at Slovak universities will continue to increase. This paper focuses on examining the learning styles of Generation Z students at the Faculty of Economics of Matej Bel University in Banska Bystrica and on identifying the factors that influence their education. The aim is to highlight the preferences of this generation, the impact of digitalization, and potential barriers to effective learning in order to adapt educational strategies to their needs.

Key words: generation Z, university education, digitalization, learning styles, students, international students, Matej Bel University, adaptation to higher education environment

Abstrakt

Vysokoškolské prostredie dnes výrazne formuje generácia Z, ktorá sa od predchádzajúcich generácií odlišuje viacerými charakteristikami. Ide o prvú generáciu vyrastajúcu v digitálnom prostredí, kde informačné a komunikačné technológie predstavujú neodmysliteľnú súčasť každodenného života. Tento faktor ovplyvňuje nielen spôsob, akým mladí ľudia vnímajú realitu, ale aj ich prístup ku komunikácii a vzdelávaniu. Výskumy i pedagogická prax ukazujú, že príslušníci generácie Z sú technicky zdatní, rýchlo sa orientujú v nových trendoch a aktívne fungujú v globálnej sieti. Preferujú komunikáciu prostredníctvom digitálnych médií a uprednostňujú krátke, vizuálne a štruktúrované formy obsahu. Tieto komunikačné vzorce sa odrážajú aj v procese učenia. Mnohí študenti zápasia s udržaním pozornosti pri práci s rozsiahlejšími textami a ťažšie si osvojujú postupne nadväzujúce vedomosti, čo môže negatívne vplývať na ich študijné výsledky. Adaptácia na vysokoškolské prostredie je preto často náročná a môže viesť k neúspechu pri skúškach či k predčasnému ukončeniu štúdia. Osobitnou skupinou sú zahraniční študenti, predovšetkým z východnej Európy, ktorí okrem

uvedených ťažkostí čelia aj jazykovej bariére. Predpokladá sa, že v dôsledku súčasného vývoja na Ukrajine sa ich počet na slovenských vysokých školách bude zvyšovať. Príspevok sa zameriava na skúmanie učebných štýlov študentov generácie Z na Ekonomickej fakulte Univerzity Mateja Bela v Banskej Bystrici a na identifikáciu faktorov, ktoré ovplyvňujú ich vzdelávanie. Cieľom je poukázať na preferencie tejto generácie, vplyv digitalizácie a možné prekážky efektívneho učenia, aby bolo možné prispôsobiť vzdelávacie stratégie ich potrebám.
Kľúčové slová: generácia Z, univerzitné vzdelávanie, digitalizácia, štýly učenia, študenti, medzinárodní študenti, Univerzita Mateja Bela, adaptácia na vysokoškolské prostredie

Introduction

Text je The educational process has undergone significant changes in recent decades, with the most visible transformation reflected in the current student generation – Generation Z. While previous generations were accustomed to traditional forms of education, today's students prefer the use of digital technologies. They are used to shorter texts, videos, and virtual environments. Students often struggle with concentration and comprehension of longer and more complex texts, and they are unable to build knowledge continuously, which results in difficulties in fulfilling their academic obligations. Tablets, laptops, and various online platforms are gradually replacing traditional textbooks and enabling a more flexible approach to learning (GiGroup, Grafton, Generational Survey, 2023).

Based on research focused on Generation Z as well as our own pedagogical experience, it is evident that today's students differ significantly from those of previous generations. We intuitively perceive that the teaching methods applied thus far are insufficient and unappealing to them. We observe that students primarily wish to learn quickly, without reflecting on the effectiveness of the learning process itself. This trend is also visible in the teaching of economic theory courses offered within the study programs at the Faculty of Economics of Matej Bel University in Banska Bystrica. The inefficiency of student learning becomes apparent primarily through their continuous and final assessments. Each year, the number of students failing to meet the requirements for completing courses in economic theory increases, despite the fact that the level of difficulty of these courses remains unchanged.

As an example, we refer to the course Microeconomics 1, which is taught in the winter semester of the first year of the bachelor's degree program as a compulsory subject at the Faculty of Economics of Matej Bel University. The direct teaching allocation amounts to two hours of lectures and two hours of seminars per week (13 weeks per semester), with a credit allocation of six ECTS. The overall assessment of the course consists of a mid-term written test, a final written test at the end of the semester, and an oral examination. For several consecutive years, the success rate of students (i.e., the proportion of those who complete the course and earn credits) has remained at around 50%. Of those who do not successfully complete the course, half are students who attempt the assessments but fail to achieve the required 65% of total points, while the other half are students who do not participate in the assessment at all. For this reason, we are approaching the nationwide trend whereby nearly one-third of first-year students at Slovak faculties fail to complete their studies. At the same time, the probability that these young individuals will eventually complete a university degree is relatively low (Hall, 2019).

The consequences of study failure and inefficiency are also evident at the end of the educational process, when students graduate and enter the labor market. The student satisfaction survey Akademická štvrťhodinka (SAAVŠ, 2021) revealed that nearly 40% of graduating students do not feel prepared for life after university. These findings correspond with the outcomes of the To dá rozum project, in which as many as 40% of human resource specialists reported that university graduates do not meet their requirements (MESA10, 2018). Considering these findings, the Long-Term Plan of the Ministry of Education for Educational, Research, Development, Artistic, and Other Creative Activities in Higher Education for the Period 2023–2028 sets out the ambition to provide systematic support services for university students in order to facilitate, among other things, adaptation to the specifics of higher education studies and the elimination of factors contributing to premature withdrawal from studies.

This support should target not only Slovak but also international students, whose numbers have been increasing year by year, partly due to the war in Ukraine. In addition to the language barrier they must overcome, international students' learning styles are shaped by specific cultural and social factors, which are likely to differ from those of Slovak students. It is evident that a significant proportion of international students in Slovak higher education institutions currently come from Eastern Europe. The Slovak Student Council has, also highlighted their adaptation difficulties, as well as issues related to language barriers, for Higher Education, which calls for the establishment of, for instance, language centres at universities.

The growing number of international students is also evident at Matej Bel University. While in 2011 the university hosted 116 international students (0.95% of the total student body), by 2022 this number had risen to 828 (13.22% of the total). In light of the Ministry of Education's Long-Term Plan, one of the objectives of which is the internationalization of higher education and the increase of the proportion of foreign students at Slovak universities, it is expected that this upward trend in the number of international students at Matej Bel University in Banska Bystrica will continue in the future.

This paper focuses on examining the learning styles of Generation Z students at the Faculty of Economics of Matej Bel University in Banska Bystrica and on identifying the factors influencing their education. Our aim is to highlight the preferences of this generation, the impact of digitalization, and potential barriers to effective learning, with the ultimate goal of adapting educational strategies to their needs.Mladá veda Young

Generation Z learning styles

According to Dunn (in: Ginnis, 2002, p. 36), "a learning style is what makes each learner begin to concentrate on, process, and retain new and difficult information." By analogy, the learning style of university students can be understood as a "biologically and developmentally imposed set of characteristics that make the same teaching method effective for some students and ineffective for others. Each of us has our own learning style, which is as individual as our signature" (Dunn in: Ginnis, 2002, p. 36). Sternberg (1994) defines learning style as the preferred way of using our abilities, claiming that it is not an ability in itself, but rather a preference.

The concept of learning styles has long been a topic of discussion within educational psychology. Although widely represented in pedagogical practice and educational systems, scientific evidence supporting its effectiveness remains contested. Despite methodological controversies, several models are clearly defined, theoretically grounded, and repeatedly published in the academic literature. The following section provides an overview of the most significant models.

Kolb (1984) views learning as a dynamic process based on a cycle of four stages: concrete experience, reflective observation, abstract conceptualization, and active experimentation. Through the interaction of these dimensions, four learning styles emerge:

Diverger – prefers concrete experience combined with reflection; characterized by creativity and emotional sensitivity.

Assimilator – oriented toward abstract thinking and logical analysis.

Converger – focuses on problem-solving and practical application.

Accommodator – inclined to learning through trial, improvisation, and active engagement.

Kolb’s model is one of the most cited approaches and serves as the basis for several later frameworks.

Honey and Mumford (1986) adapted Kolb’s cycle into a practical model designed for managerial and corporate contexts. They identify four learning styles:

Activist – seeks new experiences and readily engages in activities.

Reflector – prefers observation before action.

Theorist – values logical, systematic information processing.

Pragmatist – appreciates knowledge that can be applied in practice.

This model is frequently used in corporate training and coaching, serving as a tool for self-assessment and development.

Felder and Silverman (1988) developed a model primarily intended for technical and engineering education. The authors describe learners’ preferences using four bipolar dimensions:

Active – reflective

Sensing – intuitive

Visual – verbal

Sequential – global

The model emphasizes that students may exhibit preferences along continuums rather than fitting strictly into a single category. It has proven useful in analysing individual differences in technical education.

Fleming and Mills (1992) introduced one of the most widely known models “VARK” which categorizes learners’ preferences into four modalities:

V – Visual

A – Auditory

R – Read/Write

K – Kinesthetic

The model became popular due to its simplicity and practicality. However, it is also one of the most criticized approaches, as empirical evidence supporting the claim that matching instruction to preferred modality enhances learning remains absent.

Despite their popularity, contemporary scientific literature indicates a growing consensus that there is no compelling empirical evidence supporting the meshing hypothesis - the assumption that learning is more effective when instruction matches a learner's preferred style. Comprehensive reviews (e.g. Pashler et al., 2008; Coffield et al., 2004) repeatedly highlight methodological shortcomings in studies that claim support for this theory. Nevertheless, learning styles remain useful as tools for self-reflection, personalization, and diversification of instruction. In educational practice, they are best utilized to enhance understanding of individual differences rather than as rigid frameworks for instructional design.

In the scholarly literature, there are no precise boundaries between generations, and thus various authors understand Generation Z differently. Some classify individuals born in 1990 and later as belonging to this generation (Geck, 2006; Posnick-Goodwin, 2010), while others place its beginning in subsequent years. Glass (2007) identifies the first members of Generation Z as those born in 1992, Rowlands (2008) in 1993, Zemke, Raines, and Filipczak (2000), Williams (2010), Gupta and Gulati (2014), Adecco (2015, in: Mládková, 2017), and Vallone et al. (2016) after 1995, while Bencsik and Machová (2016) extend the starting point to 1996. Iftode (2019) defines Generation Z as represented by young people born between 1995 and 2012. He also refers to it as the "Facebook Generation," due to the large amount of time they spend on social media. Their lifestyle is closely tied to technological evolution and digitalization; whereas previous generations had to acquire digital skills through learning and adaptation, Generation Z uses new technologies naturally.

Research focused on Generation Z indicates that these young people learn primarily through observation and practice and have an attention span of only eight seconds, which is four seconds less than that of Millennials (Generation Y) (Taylor, Doherty, Parker, & Krishnamurthy, 2014, in: Mládková, 2017). Besides limited attention spans, members of Generation Z are also characterized by a certain superficiality in their thinking and a lack of interest in searching for deeper meaning (Bencsik & Machová, 2016). Another distinctive feature of this generation is their interest in learning new things "on their own," which is reflected in the abundance of online tutorials across various fields. Based on this, Iftode (2019) describes these young people as ambitious, independent, and self-development oriented. Similarly, Mládková (2017) describes Generation Z as technologically proficient, self-confident, and global, with high expectations regarding their knowledge, skills, careers, and future lives.

Research findings differ regarding the ways in which these young people communicate, which also significantly influences the learning styles they prefer in their studies. According to Iftode (2019), today's young people feel the need to communicate constantly, using a variety of channels from Instagram to Twitter, as well as through meeting friends both at school and outside of it. Communication appears to be the most important activity in the lives of Generation Z. Although they are masters in the use of technology and spend most of their time online, they nevertheless prefer face-to-face interactions as a means of socialization. Bencsik and Machová (2016), who examined the ability of young people to work in teams, reached different conclusions. Their findings suggest that Generation Z is reluctant to work in groups, and if forced to do so, they tend to prefer virtual communication. On the other hand, they are willing to share knowledge, but primarily in a virtual environment. Igel and Urquhart (2012) point out that not all young people are capable of team cooperation and collaborative learning. In relationships, they tend to be superficial and prefer virtual connections. Paradoxically, despite the internet being an integral part of their lives, Generation Z lacks the ability to critically assess the validity of the information they encounter there (Shatto & Erwin, 2016).

Although numerous studies focus on the characteristics and behavior of those identified as Generation Z, relatively few have addressed their learning styles. Iftode (2019) describes Generation Z students as autodidactic, proactively using available learning resources. Pletka (2007) argues that the "old way" of education is no longer effective for the new student generation. The values of today's Generation Z students are not aligned with traditional content and methods. Theoretical approaches focused solely on textbook learning are likely perceived as boring. Tafoano et al. (2020), who examined learning media and technologies in the teaching and learning activities of Generation Z and the subsequent Generation Alpha, reached similar conclusions. They argue that media and technology are among the fundamental needs supporting the learning process of these generations. They further state that media help students to more easily absorb and understand the subject matter and may therefore serve as a strategic tool in determining the success of teaching and learning. In this context, they emphasize that mastery of technological media is now indispensable for educators, and technological progress should not be seen as a threat, but as an opportunity for the development of technology-based learning tools (Tafoano et al., 2020). Mládková (2017) arrived at different conclusions in her study conducted on a sample of 128 students of the University of Economics in Prague. The findings revealed that students do not mind achieving their educational goals within the traditional framework of higher education – they use materials recommended by other students (notes shared through social media) as well as their own lecture notes. They enjoy storytelling and PowerPoint presentations but dislike case studies and games. Videos emerged as their most popular tool. At the same time, the survey results indicated that students do not use materials recommended by teachers, which can be regarded as a limiting factor in education. Students of the University of Economics in Prague also hesitate to engage in teamwork, which is consistent with the findings of Bencsik and Machová (2016). They are willing to share knowledge, but primarily with their close friends. Iftode (2019), who conducted research on learning styles among students at the Faculty of Economics and Business Administration of Alexandru Ioan Cuza University in Romania, found that Generation Z students prefer practical learning methods with direct application or connections to real life. They need support from teachers who motivate them to study and encourage greater engagement and initiative in their own education. He also identified certain differences between bachelor's and master's level students.

We agree with Purnomo et al. (2016), who argue that, given the distinct characteristics of Generation Z compared to the previous generation, education systems should seek to identify their unique learning styles and design learning models tailored to their needs. Today, therefore, we face the challenge - and hold the determination - to find pathways to educating Generation Z students, whether Slovak or international. We are convinced that the academic success of these students, both during their studies at universities and later in their lives, and consequently the effectiveness of us as educators, depends on our ability to adapt to their needs, which are also manifested in their individual learning styles.

Analysis of teaching styles of students at The Faculty of Economics MBU

As part of the student scientific activity carried out at the Faculty of Economics of Matej Bel University during the 2024/2025 academic year, students Klára Švancárová and Viktória Švarcová conducted a survey focused on examining the learning preferences of students of the Faculty of Economics. The survey was conducted from March 10 to March 18, 2025, using a questionnaire method administered online and distributed via social media. A total of 133 respondents aged 18 to 25 participated in the survey, with nearly one-third being 20 years old and three-quarters enrolled in bachelor's level programs. Of the predominantly full-time student sample (only one was part-time), 106 were women, 26 were men, and one respondent did not specify gender.

The education of Generation Z has been significantly shaped by the COVID-19 pandemic. Since these students have experience with online learning and are able to evaluate it, we were particularly interested in their attitudes toward different forms of education. A positive finding is that more than half of the respondents (73) still prefer face-to-face learning. Direct contact with teachers, as well as classroom dynamics and social bonds with peers, appear to be irreplaceable. 57 students prefer a combination of in-person and online learning (so-called hybrid learning), while only 3 respondents indicated online-only instruction as their preferred form.

It is evident that today's students also spend their free time differently compared to previous generations. Digital technologies, social media, streaming platforms, and other forms of online entertainment heavily influence their daily routines. This trend impacts not only their concentration and efficiency in studying but also the amount of time they devote to learning outside of class. More than one-third of respondents reported studying less than one hour per day on average outside of lessons, while about two-thirds study less than two hours daily. Only one-third indicated that they study for more than two hours a day outside of school. The analysis further revealed that students are most motivated to study by approaching deadlines for tests and exams. Another important factor is their interest in the subject matter, suggesting that students are far more intrinsically motivated when their studies are thematically connected to their personal interests. Other significant motivators, identified by approximately 40% of respondents, include future career prospects, grades or credits received, a sense of achievement, and personal development. Less influential motivators include the practical application of knowledge, peer influence, and family expectations.

We perceive positively the finding that more than half of respondents consciously organize their studies and thus employ time management strategies. These are most often facilitated through digital applications, but also through traditional planners or notebooks. The remaining respondents lack a fixed organization of time and tend to study more spontaneously. The most preferred mode of studying among respondents is alone and in silence (83 students), followed by studying with music or a TV series playing in the background (21 students), or in public spaces such as libraries and cafés (7 students). Twenty-two respondents out of the 133 surveyed reported preferring to study in groups with peers.

Another part of the questionnaire focused on learning methods and the specific learning styles of Generation Z students. The analysis revealed that respondents most often remember new information through practical problem solving and exercises, for example using workbooks. Nearly three-quarters of the respondents indicated this answer, which, considering the economic orientation of their studies is not surprising. Reading texts, whether from textbooks, scripts, articles, or notes also emerged as a frequently used learning method. Fewer than half of respondents reported that they most often retain new information by explaining subject matter to peers, engaging in discussions, or watching videos and other visual presentations. Less than one-third selected listening to lectures and podcasts in this context. A surprising finding was that only one respondent indicated handwriting notes as their most frequently used learning method. A positive result, however, is that more than two-thirds of respondents reported no difficulty studying materials in a foreign language (most likely English).

The results of our analysis therefore confirm that in the context of education it is essential to account for the diversity of learning styles that influence how individuals receive and process information. Generally, the most common learning styles include the visual style, in which students prefer pictures, graphs, and diagrams; the auditory style, involving learning through listening, explaining, and discussion; the kinaesthetic style, in which practical engagement and movement are central; and the reading/writing style, where students favour working with texts and notes (Rovňanová, 2018). The most frequently chosen method of learning and memorization among our respondents - practical problem solving - already indicates that the largest group of students is most likely to prefer the kinaesthetic learning style, which was explicitly identified by nearly one-third of them (see Figure 1). The second most preferred learning style was auditory learning. Roughly, the same number of respondents indicated the visual and reading/writing styles.

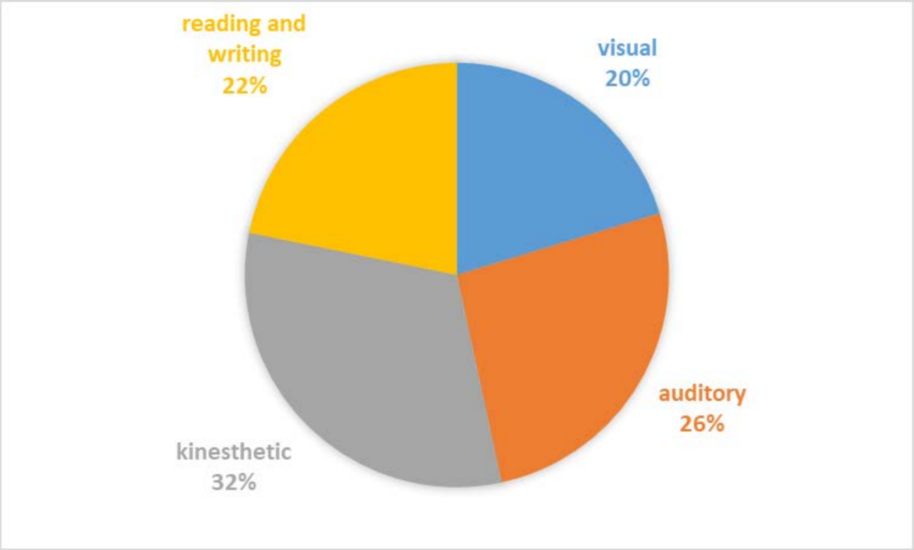

Figure 1 – Preferred learning styles
Source: Own processing

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Generation Z also incorporates modern technologies and various digital tools into the learning process. Online courses, webinars, and virtual classrooms, often enriched with elements of gamification, increase their motivation and engagement in learning. Artificial intelligence and interactive platforms enable personalized educational experiences, creating a dynamic and interactive learning environment. Effective generational education therefore requires not only the use of contemporary technologies but also an understanding of and integration across different learning styles (GiGroup, Grafton, Generational Survey, 2023).

For this reason, we asked students of the Faculty of Economics at Matej Bel University which digital tools they use in their learning process. Almost all respondents (128 out of 133 surveyed) reported using the LMS (Learning Management System) platform Moodle, which has been employed at the Faculty of Economics for several years as the standard academic system for creating and managing online learning environments. Moodle is a free, open-source platform that provides tools for managing study materials, tests, communication (forums, chats), and monitoring student progress.

Nearly three-quarters of students indicated that they use AI tools in their learning, most commonly ChatGPT, DeepL, Canva AI, Grammarly, and Quizlet. Figure 2 shows how frequently the surveyed students use artificial intelligence. A quarter of respondents reported using AI daily, one-third occasionally, and the largest share (nearly 40%) several times a week. Only 4 respondents stated that they do not use AI at all.

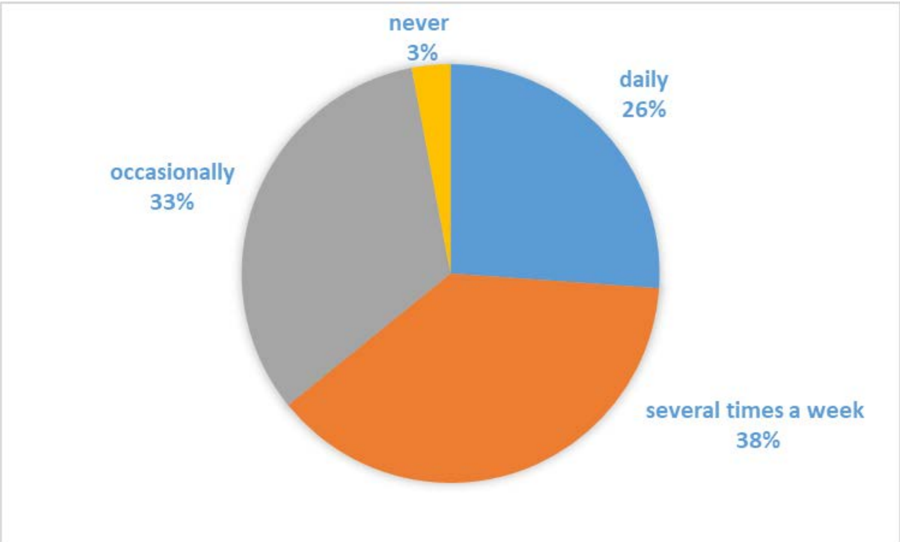

Figure 2 – Use of AI
Source: Own processing

Conclusion

The educational process has undergone dynamic changes in recent decades, and one of the main reasons for these transformations is the arrival of Generation Z in classrooms. Students of this generation grew up surrounded by digital technologies, which has significantly shaped their way of thinking, preferences, and approach to learning. Compared to previous generations, they are characterized by shorter attention spans, a preference for visually attractive and concise forms of content, and a demand for rapid results. These differences mean that traditional teaching methods, long considered effective, are increasingly losing their relevance and impact.

The results of the survey conducted at the Faculty of Economics of Matej Bel University confirmed that, despite a general orientation toward digital environments, students still prefer face-to-face instruction, which provides them with direct interaction with teachers, social bonds with peers, and greater classroom dynamics. At the same time, they appreciate the flexibility of hybrid learning, which combines the benefits of in-person and online education. Purely online instruction proved to be the least attractive option, highlighting the importance of maintaining personal contact in the educational process.

The motivation to learn among Generation Z students is largely reactive and driven by external factors such as deadlines for tests, exams, or grading. Only a smaller proportion of respondents indicated that they are motivated by internal factors such as personal interest in the subject or a desire for self-development. This finding suggests a risk of superficial knowledge acquisition, which may negatively affect not only academic performance but also preparedness for the labor market. This trend aligns with nationwide statistics showing that many students fail to complete their first year of higher education, as well as with employers' surveys pointing to insufficient competencies among graduates.

With respect to learning styles, the survey revealed the dominance of a kinaesthetic approach - students retain information best through practical problem-solving and exercises. Given the economic orientation of their studies, this result is not surprising, yet it clearly indicates that effective educational strategies should emphasize practical application and the transfer of theory into real-world contexts. Less prevalent, though still significant, were auditory, visual, and reading/writing learning styles, demonstrating that even within a single generation, learning preferences are diverse. Successful educational strategies must therefore be differentiated and combine multiple approaches in order to address the needs of the widest possible group of students.

Digital tools and modern technologies have become an integral part of the learning process for Generation Z. Almost all respondents use the university's LMS Moodle system, and a significant number also actively employ artificial intelligence tools such as ChatGPT, Grammarly, or Quizlet. These applications provide not only study support but also personalized learning experiences that can enhance students' efficiency and motivation. The rapid increase in AI usage suggests that in the future, these tools will need to be systematically integrated into teaching, with educators guiding students toward their critical and responsible use.

The survey findings therefore point to the necessity of transforming higher education. If teaching is to remain effective and relevant, institutions must move beyond exclusively traditional methods and develop forms and content that reflect the needs and preferences of Generation Z. This includes integrating modern technologies, increasing interactivity, applying gamification, and supporting active learning through practical tasks. Equally important is the systematic support of students in areas such as time management, independent learning, and overcoming challenges related to adaptation to the university environment—one of the long-term goals of the Ministry of Education.

Another challenge lies in the growing number of international students, whose learning styles and adaptation difficulties may differ from those of domestic students. Language barriers and cultural differences call for the expansion of support services such as language centers and mentoring programs. The increasing share of international students at Matej Bel University therefore represents not only an opportunity for internationalization but also a responsibility for the institution to create conditions for their successful integration.

In conclusion, effective education of Generation Z requires a flexible and innovative approach from higher education institutions. Only by combining traditional academic values with modern technologies, acknowledging diverse learning styles, and fostering students' intrinsic motivation will it be possible to reduce dropout rates while preparing graduates who are competitive in the labor market. Generation Z thus represents not only a challenge but also an opportunity to elevate higher education in Slovakia to a higher level.

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