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## CONTEMPORARY LEARNING METHODS AND THE "NEW" ROLES OF TEACHING PRACTITIONERS

# WSPÓŁCZESNE SPOSOBY UCZENIA SIĘ I "NOWE" ROLE PRAKTYKÓW NAUCZANIA

Abstract: The article focuses on a modern approach to the learning process and the development of competencies. This does not only concern the Internet generation (Tapscott, 2010), characterised by, among other things, the need for constant access to information and the pursuit of novelties – also in terms of innovative, engaging ways of acquiring knowledge. Taking the above into account, educators should ensure inclusivity and attractiveness of the educational environment, enabling the reconciliation of diverse student needs, by creating appropriate spaces such as: architectural, virtual, for individual and group work, sparking curiosity, and supporting the courage of learners when solving problems, not only educational ones. Through collaboration with other members of the school/university community, educators increasingly often create innovative environments for other practitioners, sharing experiences and teaching materials. Contemporary teachers are also expected to be attentive to social partners. On the other hand, the new generation of students values, for example: openness to learning in conditions of social interaction and the improvement of skills related to learning.

**Keywords:** learners, experiences, learning methods, education practitioners, roles in the learning process, educational spaces, research reports

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Streszczenie: Artykuł zwraca uwagę na nowoczesne podejście do procesu uczenia się i rozwoju kompetencji. Nie tylko pokolenia sieci (Tapscott 2010), które charakteryzuje m.in. potrzeba stałego dostępu do informacji oraz poszukiwanie nowości – także jeśli chodzi o innowacyjne, angażujące sposoby zdobywania wiedzy. Uwzględniając powyższe, osoby nauczające powinni zadbać/dbają o inkluzywność oraz atrakcyjność środowiska edukacyjnego, umożliwiającego pogodzenie różnorodnych potrzeb uczniów, (współ)tworząc np. odpowiednie przestrzenie: architektoniczne, wirtualne, do pracy indywidualnej i w grupie, budzące ciekawość, wspierające odwagę osób uczących się podczas rozwiązywania problemów, nie tylko edukacyjnych. Współpracując z pozostałymi uczestnikami życia szkolnego/uczelnianego coraz częściej organizują również twórcze przestrzenie dla innych praktyków, wymieniając się doświadczeniami oraz zasobami dydaktycznymi. Od współczesnych nauczycielek i nauczycieli – inicjatorów zmiany oczekiwana jest też uważność na partnerów społecznych. Natomiast, u nowego pokolenia uczniów i uczennic cenione są np.: otwartość na uczenie się w warunkach społecznej interakcji oraz doskonalenie umiejętności związanych z uczeniem się.

**Słowa kluczowe:** osoby uczące się, doświadczenia, sposoby uczenia się, praktycy edukacji, role w procesie uczenia się, przestrzenie (do) edukacji, raporty z badań

#### Active learning. Introduction to further analysis

Why do we learn? Each of us has their own answer to this question: through learning, our confidence grows, we improve the quality of lives, we get to know the world, develop the talents, and strengthen our competencies. The learning to learn competence – one of the key competences today and in the future – includes, among others, knowledge of (also preferred) learning strategies and readiness to seek new possibilities in this area, as well as the ability to learn independently, develop in various fields, and engage in collaborative learning, sharing knowledge (European Commission 2019). Curiosity, active learning and learning strategies are skills that will be in demand in the coming years. Next to the esteemed culture of lifelong learning, cognitive skills are and will be important (World Economic Forum 2020, 2023). Contemporary employers, as shown in the European Skills Panorama 2023, attribute great value to growth mindset and learning skill, also information and data literacy skill. Learning new things is linked to universal - for many industries – competencies in the area of creativity and innovation, significant for the observed trends in the job market and effective professional activity (Worek, Jelonek et al. 2023). It is popular to take advantage of the offerings of EdTech startups (companies providing technological, innovative educational solutions): learning equipment and multimedia materials with mentoring support, educational apps and games, robots, IoT (Internet of Things) devices, virtual or augmented reality applications (VR and AR) (Dziewit 2021).

In subject literature, there is also a mention of components of learning potential (building learning power) and the role of teaching staff supporting its development. According to Guy Claxton, one of the elements of this potential is

entrepreneurship, perceived by the author as a continuous pursuit of knowing and understanding the essence of things. "Good learning – according to Claxton – is an effective approach to uncertainty" (Claxton 2005, as cited in: Murzyn 2018, p. 21). Another important component is flexibility, which is the ability to adapt the way of learning to what we are learning, combining individual and cooperative learning (Claxton 2005, as cited in: Murzyn 2018). It should be added that the highlighted: entrepreneurship (creating innovations) and flexibility (adapting to circumstances) should also characterise the actions of education practitioners.

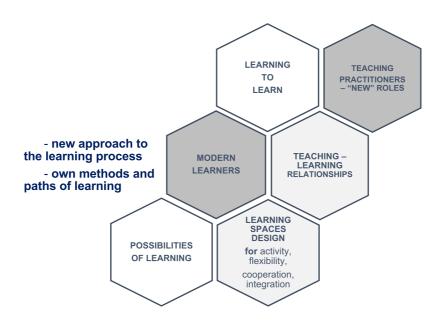


Fig. 1 Article composition/selected problems - own elaboration

#### Heterogeneous image of (young) learners

From the studies selected for the purposes of this text, an interesting but also ambiguous, continually debated image of the "new" generation of learners emerges. Characteristics of this group, particularly individuals born after 1997, include the pursuit of individualisation of products and services according to their own preferences, the need for constant availability and immediate response and the search for novelty, including innovative forms and methods of acquiring knowledge (Tapscott 2010) and tools for self-creation (Pyżalski 2019). However, these are mainly Millennials, as shown in *Report 2021. Nauka i rozwój w pracy i życiu*, who prioritise continuous development and improvement of competencies, placing great value on active² and mobile learning (SeeWidely 2021). Research results

<sup>2</sup> Active learning should be supported, for example, through discussion, asking questions, practical application of acquired knowledge, and opportunities to share it with others, as cited in:

presented, among others, in *The Future of Jobs Report 2020* emphasise the observed increase in the number of people engaged in online learning<sup>3</sup>, utilising government programs, job offers, or seeking educational activities independently (World Economic Forum 2020). Millennials most often consider career opportunities, so employers – wanting to retain this group in the talent pool – offer them, among other things, great flexibility in acquiring information, e.g., through learning games. The gamification increases curiosity, engagement in learning and allows for faster acquisition of knowledge and skills. It also encompasses access to courses through different devices and educational platforms. The use of games, for example, in training programmes increases the engagement of Millennials by up to 60% (Rivas 2018).

Continuing the attempt to analyse the multifaceted activity of learners<sup>4</sup>, it is necessary to emphasise that the described generations – especially Generation Z and Generation Alpha – cope well with interactive media, while engaging in various forms of education and digital era solutions (often short videos, podcasts, and the aforementioned gamification of tasks). For most respondents, the network is a natural space<sup>5</sup> for communication, building communities, gathering experiences,

- M. Silberman in cooperation with C. Auerbach (2006). *Metody aktywizujące w szkoleniach*, translated by G. Sałuda, W. Biliński. Cracow: Wolters Kluwer, Oficyna Ekonomiczna.
- 3 In Poland, adults (aged 25-64), especially younger ones, most commonly learn from online materials (BKL 2017, 2019, 2021). Furthermore, the percentage of people aged 55-64 declaring learning from the Internet is increasing, as cited in: J. Górniak, W. Kubica, B. Worek (2022). *Bilans Kapitału Ludzkiego 2022/2021. Rozwój kompetencji uczenie się dorosłych i sektor szkoleniowo-rozwojowy*. Warsaw: Polish Agency for Enterprise Development (PARP), Jagiellonian University, p. 30-31.
- 4 Net Generation, individuals born after 1980 (according to Don Tapscott, between 1977-1997), also referred to as Generation Y, Millennials or Digital Natives a generation for whom computers, the Internet, and mobile phones are natural elements of the world (the term "Digital Natives" was introduced by Marc Prensky). Jean M. Twenge, on the other hand, uses the term iGen (Internet Generation), an abbreviation for iGeneration, which starts with individuals (Post-Millennials, Generation Z) born in 1995. Meanwhile, Generation Alpha (those born in the 21st century) are presently primary school students, especially active on social media and increasingly reliant on mobile technologies.
- 5 In 2022, young people spent as much as 5 hours and 36 minutes on the Internet (on average from Monday to Friday). The time spent online is increasing (in 2014 it was around 3 hours and 40 minutes per day) and increases with age. "The most frequent online activities indicated by young people include entertainment and communication" (p. 37). In formal education, students primarily access the Internet for homework and preparing for exams, as cited in: R. Lange (ed.) and the team of Authors (2023). *Nastolatki 3.o. Raport z ogólnopolskiego badania uczniów i rodziców*. Warsaw: NASK Państwowy Instytut Badawczy, pp. 12-13, 37 and 147.

searching for information, and learning: "They are used to [...] a library on their laptops" (Prensky 2001, p. 3). Young people also willingly engage in social activities and cooperation, but on their own terms - the projects must be interesting and important (to them). There is also talk of interaction beyond social media, as well as collaboration with educators and fellow learners (Tapscott 2010). It should be noted, that the ability to work in a team and the related effective communication still pose a significant challenge for students. The same applies to creativity – young people are primarily users of technology, less often its creators<sup>6</sup>. Even in the learning process, they do not always use technology in an active and engaged manner, due in part to using multiple media/devices simultaneously, multitasking, the need to be constantly connected, responding to all notifications, and substituting real-life experiences with media (Hassed, Chambers 2018). Finally, the network generation seeks fun, pleasure, various opportunities and tools (applications) for developing and sharing their interests, also in place of learning. It is individual passions that are key motivators for learners, even though they may change throughout their education (Prensky 2012). "The learning process is enjoyable and effortless where there is joy, because attention naturally follows interest" (Hassed, Chambers 2018, p. 122). Motivating factors for learning can be: the need for development, the desire for self-realisation, but also participation in social life (Dróżka 2021). It is important that knowledge of interests, talents, and strengths is acquired before choosing a path or a way of learning. For a complete picture, it should be added that learners can change their learning strategies depending on the educational situation, the goal being pursued, or the content being acquired (Holmes 2019). In addition, young people obtain knowledge from a variety of sources and develop essential skills outside of school/university, utilising non-formal education opportunities and participating in (pre)professional activities. Their educational "careers" are diverse and may be interrupted.

Today, a critical issue is the challenge faced by individuals who struggle to function in the school/university environment, which frequently fails to respond to the actual needs of learners. Thematic studies also involve a discussion about the justification of attributing specific characteristics to certain generations. Focus is placed on examining the individual motivations of people of different ages, their expectations and values, which may be influenced by a specific life stage as well as external factors<sup>7</sup> such as technological advancements and the changing

<sup>6</sup> Information about young people's online activities can be found, for example, in the following report: Pyżalski J. (ed.) (2019). *Internet i jego młodzi twórcy – dobre i złe wiadomości z badań jakościowych*. Warsaw: NASK.

<sup>7</sup> This refers, for example, to microgeneration Zalpha, described by the infuture.institute expert group and defined by shared experiences/events common to both generations, as cited in: K. Sztop-Rutkowska, A. Maszkowska (cooperation) (2023). *Młodzi w Polsce. Przegląd badań*. Białystok – Warsaw, p. 8. Publication downloaded from The Electronic Platform for

employment model, as noted by labour market trend specialists (Strzelczak 2022). Therefore, the presented text may become part of the discussion on how to convey knowledge, especially to young people, and support them (with empathy and trust) in the dynamic process of learning.

### The multifaceted nature of contemporary "art" of teaching

The demand for new roles of teachers has been described in the literature by, among others, Agata Cudowska, Ewa Filipiak, Dorota Klus-Stańska, Joanna Madalińska-Michalak and Jolanta Szempruch. In addressing this challenge and focusing on reflective teaching practice, Wanda M. Dróżka asks (among many other questions) "how to reach the new type of student, the world of the internet and virtual reality, while still promoting the social nature of learning" (Dróżka 2021, p. 88). The author points out, among other things, the necessity of moving "[...] from teaching knowledge gained through accumulation to knowledge that is aware of its methods and purposes, from gathering information to critically analysing, selecting, and incorporating it into one's own knowledge base..." (Dróżka 2021, p. 103). According to Ewa Filipiak and Bogusław Śliwerski, today we need to think about education constructively, creating spaces for active learning through experiencing, scientific inquiry, practical observation, independent cognitive activity and collaboration in problem-solving teams. This involves transforming the school into a culture of mutual learning, including alteration of the roles of student and teacher (Bruner 2006, as cited in: Filipiak 2019, pp. 103-107; Śliwerski, 2022).

Learning from one another is facilitated by, among other methods, collaboration in teams, which proves effective in a culturally diverse educational space, with students having different levels of knowledge, motivation to study, interest in various subjects or language skills essential for effective learning (Tędziagolska et al. 2022). Teachers supporting constructive student activity encourage them to familiarise themselves with current issues (e.g. social ones), express their own opinions and generate ideas. They help in building peer relationships, participating in collaborative work and discussions, as well as developing communication skills and the ability to perceive problems from the perspective of others. Such an educational approach – i.e. cooperative (where a student can also become an expert) – requires significant methodological preparation as well as proper organisation of the didactic space (Pyżalski 2019; Śliwerski 2022). Teachers create opportunities for learning in collaboration and engage in dialogue with students, supporting them in navigating the learning space, while employing collaboration with other educators in their practice (Głoskowska-Sołdatow 2020). Furthermore, the implementation of today's

popular, flexible learning approaches (e.g. hybrid learning) necessitates investment in technology and the improvement of digital competencies among educational practitioners, as well as the time required to explore new tools, experiment and derive conclusions from the undertaken activities (Kukulska-Hulme, Bossu et al. 2022). This is particularly important when working with the Alpha generation. "[...] These young individuals have access to more technology, information, and external influences than any generation before them" (McCrindle, Fell 2020, p. 6). Only well-prepared practitioners of education who work (together) in a creative way and take care of their own development are able to effectively teach critical thinking, creativity, cooperation and communication, while paying attention to the importance of these skills (Kukulska-Hulme, Beirne et al. 2020). In today's world, the role of critical thinking must be constantly emphasised, which according to Mirosław J. Szymański, is required to "[...] expose the deficiencies of the current reality, outline areas for new discoveries and inventions, design innovative solutions, and implement them..." (Szymański, p. 197). On the other hand, Yuval Noah Harari (2018), in addition to the previously highlighted competencies (4K), currently and in the future, attributes great importance to the abilities of coping with change and continuously learning new things. Teachers, by teaching through activity, examples and asking questions, organise new knowledge, give it meaning and practical character.

In summary, learners may have differing educational expectations (acknowledging that these evolve over time) or expectations associated with assistance in the learning process. Certain individuals, those more actively involved, seek guidance on learning techniques, while others, less confident in their abilities, need to be motivated to study (Knowles, Holton, Swanson 2009). Consequently, it is vital for teaching practitioners (tutors, mentors) to: a. apply knowledge of preferred learning methods – potentially influenced by generational changes, and b. utilise skills to support students in discovering various learning techniques and shaping their individual educational path.

## Characteristics of today's learning – conclusions

The learning trends mentioned in the introduction of this text were identified through data analysis of thematic publications, including reports and forecasts selected for this article. These included the following works: *Raport 2021. Nauka i rozwój w pracy i życiu*, *Edukacja w świecie zmian. Wybór tekstów opublikowanych na platformie EPALE (2022 r.)*, *Innovating Pedagogy 2022: Open University Innovation Report 10*, *The future of work is learning: Cedefop in 2022*, *The Future of Jobs Report 2023*. The reflections presented are also based on own professional experiences and collaboration with students, including project-based learning sessions. The presented trends are primarily associated with technological changes, which are also significant for the organisation (of time, place, task distribution)

of today's professional activity. Certain changes in education/learning culture and work environment undoubtedly accelerated the phenomena (their consequences) related to the COVID-19 pandemic. Thus, the observed methods and learning opportunities – tailored to various life situations, activities and needs, can include:

- action/service learning which encompasses experiential (social, teambased) activities and encourages students' active engagement in the learning process, fostering appreciation of the relevance of new information to their existing knowledge. It can combine learning with active contribution in projects concerning local communities, aimed at tackling real-life problems (Gierszewski 2022);
- small learning experience (e.g. a short course<sup>8</sup> or training) a flexible, quick way to develop knowledge and skills, as well as hybrid programs and mobile learning in a chosen place, time and at a certain pace, involving wide access to education and educators: lectures, texts through networks (e.g. MOOC massively open online courses);
- acquiring knowledge through social media<sup>9</sup>, personal networks, as well as on discussion forums, during live mini-lectures, educational events, tutorials on platforms such as YouTube; creating learning communities, groups of practitioners with shared interests, developing specific skills;
- the use of Artificial Intelligence (AI tools) as a supportive tool in learning, with a critical consideration of their ethical implications and alignment with existing legal frameworks; this also entails preparing young individuals for living with AI present in their life, including its social and professional implications (Kukulska-Hulme, Beirne et al. 2020).

Other, still significant characteristics of learning, include also:

• learning in safe environments, fostering supportive spirit within educational institutions, which includes prioritising interpersonal relationships, collaboration, developmental activities, individual expectations, diversity (e.g. cultural), emotions alongside skills, and constructive feedback, both from peers and individual learners (Knowles, Holton, Swanson 2009);

<sup>8</sup> Information and solutions that correspond to the mentioned trend can be found in the following publications: P. van der Hijden, M. Martin (2023). Short courses, micro-credentials, and flexible learning pathways: A blueprint for policy development and action. Policy paper, International Institute for Educational Planning. Paris: UNESCO; Cedefop (2023). The future of work is learning: Cedefop in 2022. Luxembourg: Publications Office, http://data.europa.eu/doi/10.2801/926507.

<sup>9</sup> More resources on "Learning from education influencers on social media platforms", covering the benefits, potential risks and future educational challenges within this domain: Kukulska-Hulme, A., Bossu, C., Charitonos, K., Coughlan, T., Ferguson, R., FitzGerald, E., Gaved, M., Guitert, M., Herodotou, C., Maina, M., Prieto-Blázquez, J., Rienties, B., Sangrà, A., Sargent, J., Scanlon, E., Whitelock, D. (2022). *Innovating Pedagogy 2022: Open University Innovation Report 10.* Milton Keynes: The Open University, pp. 35-39.

• learning outside conventional educational institutions and spaces, such as in coworking centres, open maker spaces, and through platforms for learning; accompanied by the use of the natural environment for teambuilding activities and gaining collaborative *outdoor education* experiences (Leśny 2022);

The proposed list of changes and trends accompanying the learning process, including the roles and tasks of contemporary teaching practitioners, is not exhaustive. Similarly as the extensive catalogue of factors contributing to the highlighted trends. It is important to highlight the challenges related to the progression of AI tools – their functionalities and ethical and thoughtful adoption – particularly within the educational context. This encompasses aspects such as individualised learning paths, progress monitoring, provision of feedback, and organisational support for learning beyond the school/university settings.

#### References

- Bruner J.S. (2006). *Kultura edukacji*, Cracow: Universitas, as cited in: Filipiak E. (2011). *Z Wygotskim i Brunerem w tle: Słownik pojęć kluczowych*. Bydgoszcz: Wydawnictwo Uniwersytetu Kazimierza Wielkiego.
- Cedefop (2023). *The future of work is learning: Cedefop in 2022*. Luxembourg: Publications Office, http://data.europa.eu/doi/10.2801/926507.
- Claxton G. (2005). Rozwijanie potencjału uczenia się. Jak pomóc młodym ludziom, aby stawali się lepszymi uczniami, translated by L. Wollman. Katowice: SNEP.
- Dróżka W.M. (2021). Refleksyjność nauczyciela wobec wyzwań epoki niepewności. In: Obszary (nie)pewności w pracy współczesnego nauczyciela, ed. J.L. Pękala, K. Białożyt-Wielonek. Warsaw: Warsaw University Press.
- Dziewit W. (2021). *Czy polskie spółki edtech mają szansę odmienić oblicze światowej edukacji*? Warsaw: Startup Poland, pp. 10-11 and 90. Retrieved from www.startuppoland.org.
- European Commission (2019). *Key Competences for Lifelong Learning*. Luxembourg: Publications Office of the European Union, p. 11. Retrieved from https://op.europa.eu/en/publication-detail/-/publication/.
- Gierszewski D. (2022). *Uczenie przez zaangażowanie, czyli czym jest Service-Learning*? Blog, EPALE Electronic Platform for Adult Learning in Europe: https://epale.ec.europa.eu/pl/blog/uczenie-przez-zaangazowanie-czyli-czym-jest-service-learning.
- Głoskowska-Sołdatow M. (2020). *Współpraca w uczeniu się dzieci konteksty poznawcze i społeczne*. In: Środowisko edukacyjne jako przestrzeń współpracy różnych podmiotów, ed. M. Głoskowska-Sołdatow. Białystok: University of Bialystok.
- Górniak J., Kubica W., Worek B. (2022). *Bilans Kapitału Ludzkiego 2022/2021. Rozwój kompetencji uczenie się dorosłych i sektor szkoleniowo-rozwojowy*. Warsaw: Polish Agency for Enterprise Development (PARP), Jagiellonian University, pp. 30-31. Retrieved from https://www.parp.gov.pl/.
- Harari Y.N. (2018). 21 lekcji na XXI wiek [21 Lessons for the 21st Century], translated by M. Romanek, Wydawnictwo Literackie.

- Hassed C., Chambers R. (2018). *Uważne uczenie się*, translated by A. Redlicka, O. Kaczmarek. Warsaw: Wydawnictwo Studio Blok.
- Holmes J.D. (2019). *Edukacja i uczenie się. 16 największych mitów* [*Great Myths of Education and Learning*], translated by E. Czerniawska. Warsaw: Wydawnictwo Naukowe PWN.
- Knowles M.S., Holton III E.F., Swanson R.A. (2009). *Edukacja dorosłych. Podręcznik akademicki*. Warsaw: Wydawnictwo Naukowe PWN.
- Kukulska-Hulme, A., Beirne, E., Conole, G., Costello, E., Coughlan, T., Ferguson, R., FitzGerald, E., Gaved, M., Herodotou, C., Holmes, W., Mac Lochlainn, C., Nic Giolla Mhichíl, M., Rienties, B., Sargent, J., Scanlon, E., Sharples, M. and Whitelock, D. (2020). *Innovating Pedagogy 2020: Open University Innovation Report 8.* Milton Keynes: The Open University, pp. 10-12. Retrieved from http://www.open.ac.uk/blogs/innovating/.
- Kukulska-Hulme, A., Bossu, C., Charitonos, K., Coughlan, T., Ferguson, R., FitzGerald, E., Gaved, M., Guitert, M., Herodotou, C., Maina, M., Prieto-Blázquez, J., Rienties, B., Sangrà, A., Sargent, J., Scanlon, E., Whitelock, D. (2022). *Innovating Pedagogy 2022: Open University Innovation Report 10.* Milton Keynes: The Open University, pp. 14 and 35-39. Retrieved from http://www.open.ac.uk/blogs/innovating/.
- Lange R. (ed.) and the team of Authors (2023). *Nastolatki 3.o. Raport z ogólnopolskiego badania uczniów i rodziców*. Warsaw: NASK Państwowy Instytut Badawczy, pp. 12-13, 37 and 147. Retrieved from https://www.nask.pl/pl/raporty/.
- Leśny A. (2023). Outdoor education w edukacji osób dorosłych. In: Edukacja w świecie zmian. Wybór tekstów opublikowanych na platformie EPALE (2022 r.), ed. Habrych B. Warsaw: Foundation for the Development of the Education System.
- Līce, A., Lapiņa, I., Kamola, L., Gaile-Sarkane, E. (2023). European Skills Panorama. Building an Ecosystem for 21st Century Skills Education in STEM, Riga: Technical University (RTU). Doi Link https://doi.org/10.7250/9789934228766.
- McCrindle M., Fell A. (2020). *Understanding Generation Alpha*, Publisher: McCrindle Research.
- Murzyn A. (2018). *Przedsiębiorczość, biznes, edukacja. Studium filozoficzno pedagogiczne.* Cracow: Oficyna Wydawnicza "Impuls".
- Prensky M. (2001). Digital Natives, Digital Immigrants, Part 1, "On the Horizon", vol. 9, no. 5, pp. 1-6. Retrieved from: https://www.marcprensky.com/writing/.
- Prensky M. (2012). *What Technology ISN'T Good At, Part II: Passion*! Published in Educational Technology Nov-Dec, pp. 1-3. Retrieved from: https://www.marcprensky.com/writing/.
- Pyżalski J. (ed.) (2019). Internet i jego młodzi twórcy dobre i złe wiadomości z badań jakościowych. Warsaw: NASK, pp. 12-13, 37, 147.
- Rivas A. (2018). How to attract millennial workers and keep them, *TJ Training Journal*, The online magazine. Retrieved from: https://www.trainingjournal.com/2018/business-and-industry/how-attract-millennial-workers-and-keep-them/.
- SeeWidely, *Raport 2021. Nauka i rozwój w pracy i życiu*, 3rd edition, pp. 17, 19-21. Link to the report available on the EPALE website of the European community of adult learning professionals: https://epale.ec.europa.eu/pl/resource-centre/content/raport-2021-nauka-i-rozwoj-w-pracy-i-zyciu.

- Silberman M. in cooperation with Auerbach C. (2006). *Metody aktywizujące w szkoleniach*, translated by G. Sałuda, W. Biliński. Cracow: Wolters Kluwer, Oficyna Ekonomiczna.
- Strzelczak M., *Generational Divisions Do They Make Sense*?? 13.07.2022. Expert article available on the Responsible Business Forum (FOB) website: https://odpowiedzialny-biznes.pl/artykuly/podzialy-generacyjne-czy-maja-sens/
- Szymański M.J. (2021). Edukacja w zmieniającym się społeczeństwie. Warsaw: Difin.
- Śliwerski B. (2022). Kultura rywalizacji i współpracy w szkole. Warsaw: Wolters Kluwer.
- Sztop-Rutkowska K., Maszkowska A. (cooperation) (2023). *Młodzi w Polsce. Przegląd badań*. Białystok Warsaw, p. 8. Retrieved from:: https://epale.ec.europa.eu/pl/resource-centre/content/mlodzi-w-polsce-przeglad-badan.
- Tędziagolska M., Walczak B., Żelazowska-Kosiorek A. (2022). *SZKOŁA ZRÓŻNICOWANA KULTUROWO. Wyzwania i potrzeby związane z napływem uczniów z Ukrainy*, Centrum Edukacji Obywatelskiej (CEO), August, p. 65. Retrieved from: https://ceo.org.pl/wp-content/uploads/2022/09/CEO\_Szkola-zroznicowana-kulturowo\_raport\_sierpien22.pdf.
- Tapscott D. (2010). *Cyfrowa dorosłość. Jak pokolenie sieci zmienia nasz świat*, translated by P. Cypryański. Warsaw: Wydawnictwa Akademickie i Profesjonalne.
- Twenge J.M. (2019). *iGen. Dlaczego dzieciaki dorastające w sieci są mniej zbuntowane, bardziej tolerancyjne, mniej szczęśliwe...*, translated by O. Dziedzic. Sopot: Wydawnictwo Smak Słowa.
- Van der Hijden P., Martin M. (2023). Short courses, micro-credentials, and flexible learning pathways: A blueprint for policy development and action. Policy paper, International Institute for Educational Planning. Paris: UNESCO.
- Worek, B., Jelonek, M., Kocór, M., Krupnik, S., Krygowska-Nowak, N., Kwinta-Odrzywołek, J., Szczucka, A. (2023). *Perspektywy rozwoju siedemnastu branż polskiej gospodarki*. Warsaw: Polish Agency for Enterprise Development, pp. 50-51.
- World Economic Forum, *The Future of Jobs Report 2020*, Genewa, pp. 36 and 38. Retrieved from: https://www.weforum.org/reports/the-future-of-jobs-report-2020.
- World Economic Forum, *The Future of Jobs Report 2023. INSIGHT REPORT.* Cologne/Geneva, pp. 38-40. Retrieved from: https://www.weforum.org/reports/the-future-of-jobs-report-2023/.