TRANSFORMING EDUCATION FOR GENERATION Z: BUILDING A WORKFORCE READY FOR THE FUTURE

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Abstract

This study examines Generation Z's values and educational expectations to inform strategies that foster innovation in higher education. Growing up amidst rapid digital transformation, Generation Z brings unique perspectives that influence their preferences for flexible, personalized, and technology-integrated learning. Using bibliometric analysis and a PRISMA-based literature review, this research highlights key studies on their educational needs. The findings underscore the importance of aligning educational content, methods, and assessments with Generation Z's values to prepare them for a dynamic workforce. Recommendations are provided to guide future research, aiming to bridge the gap between education and evolving 21st-century workplace demands.

Key words: Generation Z, future workforce, higher education, values, expectations

JEL Code: I20, I23, O15

Introduction

Generation Z represents a group of individuals who are expected to become the largest generational cohort of consumers on a global scale, comprising nearly a third of the world's population and demonstrating a continuous growth in numbers and influence (Meola, 2022). This generation has never known a world devoid of the internet, which has been an integral aspect of their daily lives from an early age. For members of Generation Z, the internet is so intrinsic to their lives that they tend to take it for granted, rather than perceiving it as a remarkable technological innovation (Roblek et al., 2019). Furthermore, members of Generation Z are distinguished by their tendency to maintain constant contact with their social networks, which is evidenced by the fact that they possess the highest number of social connections compared to individuals in preceding generations. Multitasking is a common practice for this generation, yet they often experience difficulties in maintaining focus on a single task. They are distinguished by materialism and a deficiency in patience; they desire a multitude of things and expect them to be obtained without delay. Conversely, they can be

described as realistic, creative, and ambitious individuals (Lazányi & Bilan, 2017). In the context of education, the expectations of this generation are evident. It is imperative that educational institutions proactively adapt their teaching strategies to align with the preferences of Generation Z. These strategies should be more visual, interactive, and immediately accessible, while also incorporating the use of social media and technology. Generation Z anticipates the availability of an array of digital tools and uninterrupted access to online resources and platforms, including Soundcloud, TED Ed, Canva, Facebook, WordPress, and Google services (Cilliers, 2017; Aziz Hussin, 2018). Another crucial element is the exploration of novel methodologies in the field of education. Universities and other educational institutions may gain a competitive advantage through these innovations, thereby better meeting the needs of this tech-savvy generation (Kuleto et al., 2021).

1 Literature review

A number of scientific studies have already been conducted which highlight the educational needs of Generation Z. These studies indicate that this generational cohort values aspects such as validation, explicit instructions, transparency, and periodic feedback. Concurrently, they are pragmatic individuals, exhibiting a pronounced proclivity to address tangible, practical challenges and pursue vocational objectives aligned with tangible, socially conscious outcomes. Given their early exposure to technology, this cohort of young people anticipates its integration into the educational process. It is proposed by numerous authors that the utilisation of innovative technologies and community projects may facilitate the advancement of Generation Z beyond their comfort zone, thereby preparing them for their future careers in a practical manner. It is also crucial to highlight that if the objective is to foster advanced social skills within this cohort, it is vital to integrate activities that prioritize knowledge sharing and collaboration within the classroom, across disciplines, and in mixed learning environments (Barreiro & Bozutti, 2017; Carter, 2018; Chicca & Shellenbarger, 2018; Kalscheur, 2021; Mosca et al., 2019). Seemiller & Grace (2017) highlight the preference of Generation Z students for educational opportunities that are practically oriented and facilitate the application of acquired knowledge in real-life contexts. They tend to gravitate towards tasks and educational content with broader applicability, which explains why social learning tools and instant communication platforms are particularly appealing to them. Carter (2018) additionally posits that technological advancements and supportive social learning tools can have a beneficial impact on the promotion of constructivist approaches to learning. Social constructivist

environments facilitate deep learning by actively engaging students in the educational process and encouraging collaboration with peers or other stakeholders to achieve a common goal. As Garcia et al. (2019) observe, the current shifts in social media usage in education are occurring concurrently with transformations in pedagogical paradigms and learning theories that are constructivist in nature. In her 2021 research, Adamska put forth recommendations that underscored the necessity for contemporary and engaging didactic methodologies. Personal meetings with educators facilitate the establishment of interpersonal relationships, with the content of instruction, the format of presentation, and student motivation all playing significant roles. Additionally, Adamska (2021) emphasizes the importance of utilizing case studies as the standard methodology, as they effectively reflect market reality and facilitate the integration of theoretical and practical perspectives. Hernandez-de Menendez et al. (2020) observe that students belonging to Generation Z anticipate personalized and flexible learning opportunities, which would enable them to pursue their studies at their own pace and according to their own schedule. They express a preference for the option of selecting subjects and learning methods, with the educational process being interactive and engaging (Seemiller & Grace, 2017). Yalçin-Incik and Incik (2022) additionally assert that one of the most significant preferences of this generation is the continuous integration of modern technologies into the educational process, whereby such technologies become an integral part of their learning experience.

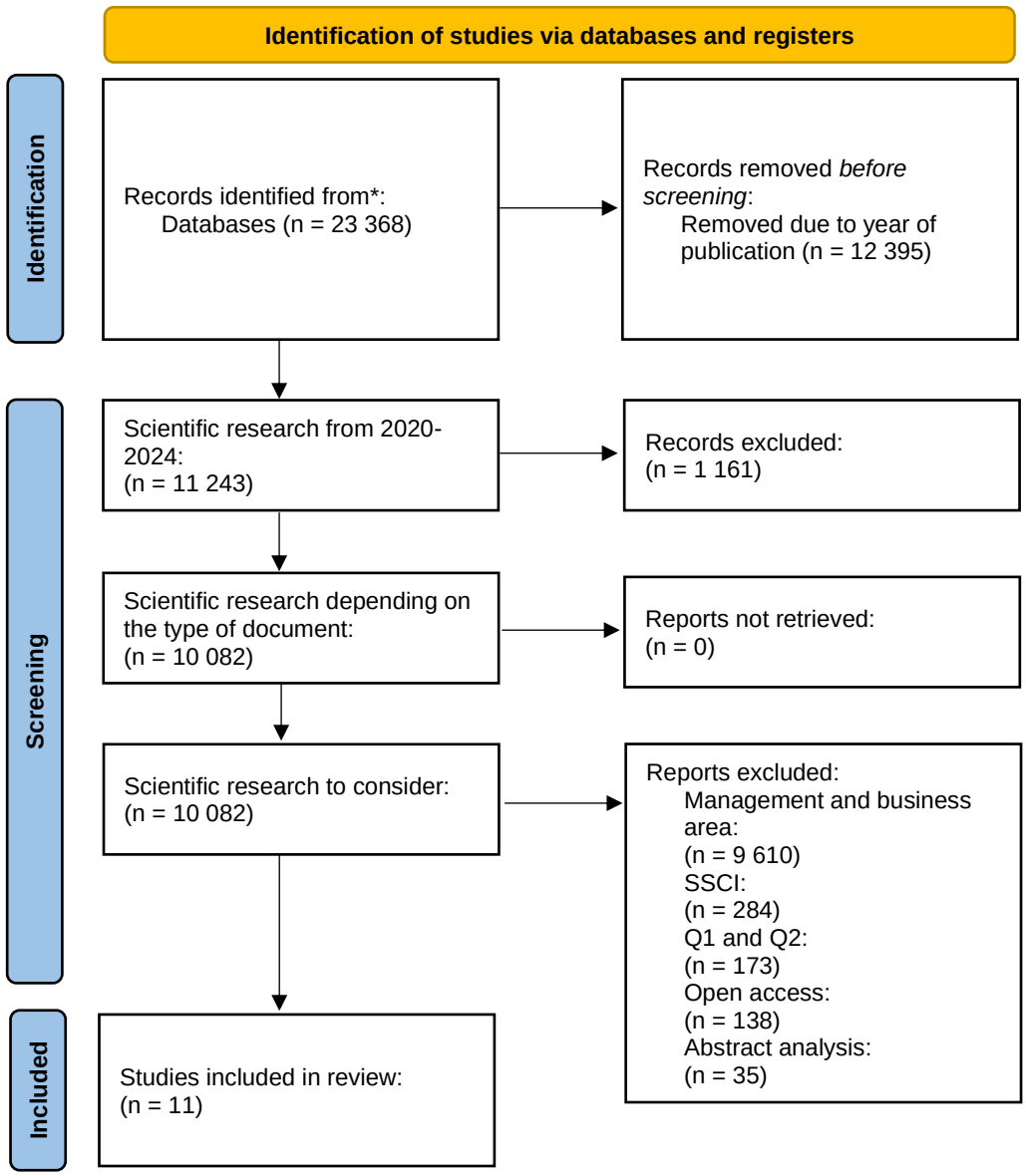
2 Methodology

The principal objective of this article is to establish a connection between the values espoused by Generation Z and their educational expectations. Additionally, it proposes avenues for further research that can contribute to innovation in the educational process. To create a systematic literature review, a bibliometric analysis and a PRISMA diagram were employed. In alignment with the objective of this paper, the research questions are as follows:

RQ1: What values are most important to Generation Z in the context of higher education?
RQ2: What are the relationships between Generation Z's values and their expectations regarding higher education?
RQ3: What are Generation Z's expectations regarding the content of higher education?
RQ4: What are Generation Z's expectations regarding teaching methods and assessment?

A crucial element of the PRISMA analysis is the identification of the most relevant keywords, which are defined as those that are closely associated with the subject matter under examination. The following terms were employed: "Generation Z Values," "Generation Z Higher Education," and "Generation Z Expectations." The final phase of the analysis entailed the selection of abstracts from articles related to the presented research issue. This approach yielded a sufficient quantity of scientific outputs for subsequent analysis.

Fig. 1: PRISMA diagram



Source: own elaboration

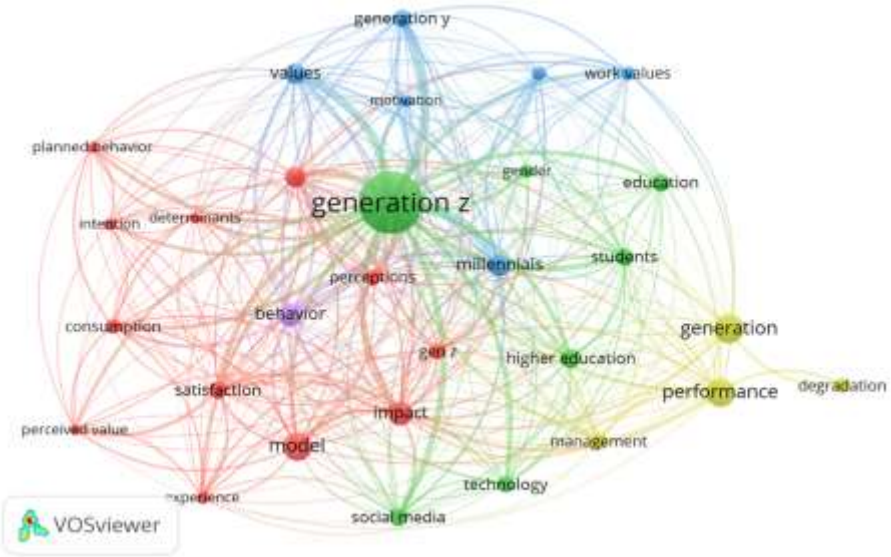
A total of 23,368 scientific research studies were identified based on the keywords that were selected for analysis. One of the primary criteria was that the research be conducted within

the specified time frame of 2020–2024 (n = 11,243). Subsequently, a selection was made in which the only suitable document type was marked as "article" (n = 10,082). The subject area was management and business, and following this stage of the process, the number of suitable scientific research studies was significantly reduced (n = 472). Subsequently, a further selection was carried out based on the evaluation of journals on the SSCI scale (n = 284). The Journal Citation Reports (JCR) tool was then employed to identify scientific studies published in journals designated as Q1 or Q2 (n = 173). Concurrently, only open-access articles were selected, and 35 scientific studies proceeded to the abstract analysis phase. In the final stage of the process, 11 articles were identified as meeting the requisite criteria.

3 Findings and discussion

A bibliometric analysis was constructed using the VOSviewer tool based on the keywords. Figure 2 illustrates this analysis, which reveals the presence of multiple cell sizes. This can be interpreted as follows: the larger the cell, the more frequently the term is observed in scientific articles. Moreover, the individual cells are connected by links, which indicate the relevance of the terms in the respective research studies. The keywords with the highest number of records are as follows: "Generation Z" (n = 414), "Performance" (n = 123), "Values" (n = 76), "Higher Education" (n = 72), and "Students" (n = 63).

Fig. 2: Bibliometric analysis



Source: own elaboration

In terms of the focus of the individual scientific outputs, a total of five clusters were identified. The first cluster consists of 12 items and focuses on "Generation Z's consumption and behavioral drivers." The second cluster contains 7 items and is centered on "Educational transformation and technology for Generation Z." The third cluster is composed of 6 items, addressing "Generational shifts in motivation and workforce expectations." The fourth cluster includes 4 items, with its core being "Generational influence on management and performance." The fifth and final cluster contains only 1 item, titled "Generation Z behavioral dynamics."

The initial research question (RQ1) of the presented study seeks to identify the values that are most significant to Generation Z in the context of higher education. The findings of the research indicate that the most significant values for Generation Z in this context are personalized education, practical experience, and skill development. As posited by Hernandez-de-Menendez et al. (2020), one of the pivotal values for this generation is personalization. Generation Z students exhibit a proclivity for the capacity to select subjects and educational methodologies, thereby engendering a bespoke educational process. Furthermore, Seemiller & Grace (2017) posit that practical opportunities, which facilitate career development, are of paramount importance to this generation. Indeed, 79% of students consider experiences such as internships to be indispensable to their higher education (Northeastern University). Furthermore, Dobrowolski et al. (2022) discovered that values such as family, health, and friendship are of paramount importance to Generation Z, followed by an emphasis on knowledge and skill development that supports their career and high earning potential.

The second research question (RQ2) sought to elucidate the relationship between the values espoused by Generation Z and their expectations regarding higher education. The relationship between Generation Z's values and their expectations of higher education is inextricably linked to their demand for an education that is practical, personalized, and technology-oriented. As Schwieger & Ludwig (2018) posit, the alignment between employer expectations and Generation Z's values can be enhanced through higher education that prioritizes the cultivation of essential competencies, including a robust work ethic, strategic planning, technical and computer skills, initiative, creativity, and effective communication. It is recommended that educational institutions build on these characteristics to ensure that graduates are equipped to meet the expectations of future employers. Additionally, Demir & Sönmez (2021) posit that educational approaches for Generation Z should encompass the incorporation of multimedia, facilitate both intrapersonal and group learning, and provide avenues for engagement in communities with a social impact. Cilliers (2017) similarly underscores the significance of online and digital instructional materials, emphasizing the utilization of mobile applications in

both academic and extracurricular settings to align with the technological expectations of Generation Z.

The third and fourth research questions (RQ3 and RQ4) sought to ascertain the expectations of Generation Z with regard to the content of higher education and the teaching and assessment methods they deem appropriate. Generation Z's expectations regarding the content of higher education are closely intertwined with their need for collaboration and the practical application of acquired knowledge. As Adamska (2021) notes, students anticipate a high level of collaboration with educators and involvement in research projects. Seemiller & Grace (2016) emphasize this generation's inclination towards experiential learning, wherein students acquire knowledge through trial and error and subsequently apply it to address authentic challenges in the real world. Additionally, Generation Z requires that educational content encompass skills that are pertinent to prospective employers and facilitate the job search process following graduation. With regard to expectations regarding teaching and assessment methods, Generation Z students have been found to prefer active learning and problem-based learning (Moore & Frazier, 2017). They require assistance in filtering information due to its current overwhelming abundance and frequent assessments with feedback. Furthermore, Moore & Frazier (2017) highlight the necessity for innovative student engagement and the facilitation of knowledge transfer. Demir & Sönmez (2021) observe a discrepancy between the perspectives of students and educators on the subject of assessment. Students tend to prefer testing and evaluation of oral presentations, whereas educators typically favor more comprehensive skill assessments. Additionally, discrepancies emerge with regard to performance evaluation preferences. Educators tend to endorse group evaluations, with some advocating for the significance of portfolio assessment, particularly in the context of language skills.

Conclusion

The main objective of this study was to establish a connection between Generation Z’s values and their educational expectations, with a focus on proposing areas for further research that can drive innovation in the educational process. A systematic literature review, employing bibliometric analysis and a PRISMA diagram, illuminates the essential values and expectations that Generation Z associates with higher education. These values include personalization, practical experience, and digital fluency, all of which are essential for the development of educational strategies that align with their distinctive preferences and learning styles. The findings indicate that Generation Z students anticipate a more personalized and flexible

educational experience, one that enables them to customize their learning trajectories to align with their individual requirements and schedules. Moreover, they place a high value on practical, real-world learning opportunities that facilitate the development of skills relevant to their prospective careers. Another defining trait is their inclination toward technology, which manifests in their expectation of seamless integration of digital tools and resources into their educational environment. It is therefore evident that active learning, collaborative projects, and frequent feedback are essential components of the teaching and assessment methods that meet their expectations. Nevertheless, a notable research gap persists. Although this study illuminates Generation Z's predilections for personalized, tech-enabled, and experiential learning, further investigation is necessary to ascertain how these preferences manifest in long-term educational and workforce outcomes. Furthermore, there is a lack of studies that examine the impact of these educational expectations on higher education institutions' ability to foster critical thinking, creativity, and adaptability—skills that are necessary for success in a rapidly changing labor market. Future studies should concentrate on evaluating the effectiveness of particular pedagogical approaches that are tailored to the needs of Generation Z, such as problem-based learning and hybrid models that integrate digital and in-person experiences. Furthermore, research should investigate the long-term impact of these educational strategies on career readiness and adaptability in diverse industries. Addressing these gaps will contribute to a more profound comprehension of the ways in which education can be transformed to align with the evolving demands of both students and employers in the 21st century.

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References

Adamska, M. (2021). Expectations of Generation Z - A Challenge for Academic Didactic Staff. NORDSCI.

Aziz Hussin, A. (2018). Education 4.0 Made Simple: Ideas For Teaching. *International Journal of Education and Literacy Studies*, 6(3), 92. https://doi.org/10.7575/aiac.ijels.v.6n.3p.92

Barreiro, S. C., & Bozutti, D. F. (2017). Challenges and Difficulties to Teaching Engineering to Generation Z: A case research. *Propósitos y Representaciones*, 5(2). https://doi.org/10.20511/pyr2017.v5n2.163

Carter, T. (2018). Preparing Generation Z for the teaching profession. *SRATE Journal*, 27(1), 1–8.

Chicca, J., & Shellenbarger, T. (2018). Generation Z: Approaches and Teaching–Learning Practices for Nursing Professional Development Practitioners. *Journal for Nurses in Professional Development*, 34(5), 250–256. https://doi.org/10.1097/NND.0000000000000478

Cilliers, E. J. (2017). THE CHALLENGE OF TEACHING GENERATION Z. PEOPLE: International *Journal of Social Sciences*, 3(1), 188–198. https://doi.org/10.20319/pijss.2017.31.188198

Demir, B., & Sönmez, G. (2021). Generation Z students' expectations from English language instruction. *Journal of Language and Linguistic Studies*, 17(1), 683–701.

Dobrowolski, Z., Drozdowski, G., & Panait, M. (2022). Understanding the Impact of Generation Z on Risk Management—A Preliminary Views on Values, Competencies, and Ethics of the Generation Z in Public Administration. *International Journal of Environmental Research and Public Health*, 19(7), 3868. https://doi.org/10.3390/ijerph19073868

Garcia, E., Moizer, J., Wilkins, S., & Haddoud, M. Y. (2019). Student learning in higher education through blogging in the classroom. *Computers & Education*, 136, 61–74. https://doi.org/10.1016/j.compedu.2019.03.011

Hernandez-de-Menendez, M., Escobar Díaz, C. A., & Morales-Menendez, R. (2020). Educational experiences with Generation Z. *International Journal on Interactive Design and Manufacturing (IJIDeM)*, 14(3), 847–859. https://doi.org/10.1007/s12008-020-00674-9

Hidayat-ur-Rehman, I., Akram, M. S., Malik, A., Mokhtar, S. A., Bhatti, Z. A., & Khan, M. A. (2020). Exploring the Determinants of Digital Content Adoption By Academics: The Moderating Role of Environmental Concerns and Price Value. *SAGE Open*, 10(2), 215824402093185. https://doi.org/10.1177/2158244020931856

Kalscheur, L. (2021). How Gen Z and Millennials are influencing the future of shopping. Total Retail. https://www.mytotalretail.com/article/how-gen-z-and-millennials-are-influencing-the-future-of-shopping/

Kuleto, V., P., M. I., Stanescu, M., Ranković, M., Šević, N. P., Păun, D., & Teodorescu, S. (2021). Extended Reality in Higher Education, a Responsible Innovation Approach for Generation Y and Generation Z. *Sustainability*, 13(21), 11814. https://doi.org/10.3390/su132111814

Lazányi, K., & Bilan, Y. (2017). GENERETION Z ON THE LABOUR MARKET – DO THEY TRUST OTHERS WITHIN THEIR WORKPLACE? *Polish Journal of Management Studies*, 16(1), 78–93. https://doi.org/10.17512/pjms.2017.16.1.07

Meola, A. (2022). Generation Z News: Latest characteristics, research, and facts. Emarketer. https://www.emarketer.com/insights/generation-z-facts/

Moore, K., Jones, C., & Frazier, R. S. (2017). Engineering Education For Generation Z. *American Journal of Engineering Education (AJEE)*, 8(2), 111–126. https://doi.org/10.19030/ajee.v8i2.10067

Mosca, J., Curtis, K., & Savoth, P. (2019). New Approaches to Learning for Generation Z. *Journal of Business Diversity*, 19(3). https://doi.org/10.33423/jbd.v19i3.2214

Roblek, V., Mesko, M., Dimovski, V., & Peterlin, J. (2019). Smart technologies as social innovation and complex social issues of the Z generation. *Kybernetes*, 48(1), 91–107. https://doi.org/10.1108/K-09-2017-0356

Schwieger, D., & Ladwig, C. (2018). Reaching and Retaining the Next Generation: Adapting to the Expectations of Gen Z in the Classroom. *Information Systems & Computing Academic Professionals*, 16(3), 45–54.

Seemiller, C., & Grace, M. (2016). Generation Z goes to college. John Wiley & Sons.

Seemiller, C., & Grace, M. (2017). Generation Z: Educating and Engaging the Next Generation of Students. *About Campus: Enriching the Student Learning Experience*, 22(3), 21–26. https://doi.org/10.1002/abc.21293

Urban and Regional Planning, Unit for Environmental Sciences and Management, North-West University, Potchefstroom, South Africa, & Cilliers, E. J. (2017). THE CHALLENGE OF TEACHING GENERATION Z. PEOPLE: *International Journal of Social Sciences*, 3(1), 188–198. https://doi.org/10.20319/pijss.2017.31.188198

Yalçin İNciK, E. (2022). Generation Z Students' Views on Technology in Education: What They Want What They Get. *Malaysian Online Journal of Educational Technology*, 10(2), 109–124. https://doi.org/10.52380/mojet.2022.10.2.275

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