

Challenges of Teaching Methods for Generation Z at Universities, Case Study China

Saša Čekrlija,

PhD, Full Professor

Independent University Banja Luka, Bosnia and Herzegovina

Abstract

This paper explores the challenges faced by university teaching methodologies in the context of Generation Z, with a particular focus on the People's Republic of China. Generation Z, born between the mid-1990s and early 2010s, has grown up in a digital environment where mobile phones, social media, and constant access to information have become integral parts of everyday life. This generation exhibits significant differences from previous generations in how they process information, learn, and communicate. One of the key challenges in educating Generation Z is their reduced ability to focus and shorter attention spans, which poses a problem for traditional teaching methods that rely on long lectures and static presentations. In an environment where information is available at the click of a button, Generation Z prefers quick, concise, and visually stimulating content. Additionally, this generation has a strong need for interaction, whether through digital platforms or within the classroom, and they tend to be highly pragmatic learners, focusing on acquiring practical skills that can be immediately applied in the real world. These changes necessitate the redefinition of teaching methods at universities. Traditional knowledge transmission methods, which rely on frontal teaching, increasingly fail to meet the needs and expectations of Generation Z students. This raises the question of how to adjust class duration, lecture content, and evaluation methods to better address their specific needs. It is also essential to explore new pedagogical approaches, such as gamification, the use of digital tools, and interactive learning, which may enhance the engagement and success of this generation in the educational process. This paper will analyze existing teaching practices in China, identify their shortcomings in the context of Generation Z, and propose innovative approaches with the potential to improve the learning process at the university level. Through case analysis, the goal is to determine how crucial digitalization and changes in teaching methods are for the successful education of this generation, and how universities can adapt to ensure relevant and effective education for future generations. This research, through empirical testing of the hypothesis on the impact of using mobile applications on the academic success of Generation Z students, demonstrates that Generation Z students achieve better results on the final test when the curriculum includes research that they can conduct on a specific sample using mobile applications for data collection, processing, and graphical presentation of results.

Keywords: Z generation, teaching methodologies, skills, processing

JEL classification: A22, C92, C933

DOI: 10.52244/c.2024.11.16

Introduction

Faced with the rapid development of technology and changes in lifestyle, higher education institutions around the world are challenged with adapting their teaching methods to meet the needs of new generations of students. Generation Z, born between the mid-1990s and the early 2010s, has grown up

in a digital environment where mobile phones, social networks, and constant access to information have become integral parts of daily life. This generation differs significantly from previous ones in how they process information, learn, and communicate. Traditional teaching approaches, which rely on lengthy lectures and static presentations, increasingly fail to meet their needs. Generation Z prefers fast, concise, and visually stimulating content and demonstrates a pronounced need for interaction, whether through digital platforms or within the classroom. In this context, the question arises: How can university teaching be adapted to meet the specific needs of this generation and ensure that the educational process remains relevant and effective? The common goals associated with learning communities include, but are not limited to, promoting collaborative learning, building a sense of community, facilitating interdisciplinary perspectives, enhancing communication and critical thinking skills, supporting academic success, encouraging active participation, fostering personal growth and development, and preparing for real-world challenges (Zamiri et al, 2024).

Understanding the specifics of Generation Z is crucial for adapting educational methods that will satisfy their needs and expectations. This generation has grown up with technology, making it almost inconceivable for them to function without constant internet access, mobile apps, social networks, and other digital tools. Their ways of acquiring knowledge and communicating differ significantly from previous generations that were educated in less digitized environments. In addition to a preference for fast and concise information, Generation Z shows a tendency toward learning through practice and interaction. Unlike traditional education, which relies on memorizing facts and theories, this generation wants to see the immediate application of what they learn. They are pragmatic in their approach to education, focusing on acquiring practical skills that can be immediately used in the real world. This poses a significant challenge for university professors and educational institutions that must adapt to this new way of thinking and learning. For more than two decades, researchers, educators, policymakers, and business leaders have emphasized the need to support “twenty-first century” skills in a context where knowledge is rapidly expanding and technologies and work processes are rapidly changing (Darling-Hammond et al, 2019).

One way to address these challenges is through the integration of technology into the educational process. Introducing mobile apps, digital tools, and interactive platforms can significantly enhance the learning experience for Generation Z. Utilizing these tools allows students to engage in the learning process in a way that is natural and intuitive for them. For example, mobile apps can facilitate data collection, processing, and result visualization, which not only improves understanding of theoretical concepts but also enables students to acquire skills that are directly applicable in their future careers. Interactive approaches, such as gamification, learning through play, and the use of multimedia content, have also proven effective in engaging Generation Z. Gamification, for instance, turns the learning process into a game, which can increase student motivation and interest in a particular subject. The use of video content, interactive simulations, and digital resources can help students grasp complex concepts more easily and quickly. Additionally, these methods encourage collaboration and teamwork, which is another important aspect that Generation Z values. In this context, universities and professors need to reassess traditional teaching methods and adapt them to meet the needs of this new generation of students. This includes shortening lecture durations, increasing the frequency of breaks, and incorporating various forms of interactive learning into the curriculum. Lectures should focus on key concepts, while more detailed explanations could be addressed through interactive tasks, group projects, or discussions.

Moreover, it is crucial to redefine student assessment methods. Traditional exams that rely on memorization may no longer be the best indicators of the actual knowledge and skills that students

possess. Instead, greater emphasis should be placed on practical projects, case studies, and presentations that allow students to demonstrate how they apply their acquired knowledge in practice.

Methodological Framework

This paper is conceived as a preliminary report due to planned further analyses of the obtained data and continued research, which will be conducted over the next year on a larger sample of participants. At this stage of the research, initial findings are presented, which will serve as a basis for future, deeper analyses and interpretations. Given that subsequent studies will expand the scope of the research and include a larger number of participants, the results and conclusions from this paper represent preliminary insights that will be further developed and refined in the final version of the study. As knowledge regarding human development and learning has grown at a rapid pace, the opportunity to shape more effective educational practices has also increased. Taking advantage of these advances, however, requires integrating insights across multiple fields—from the biological and neurosciences to psychology, sociology, developmental and learning sciences—and connecting them to knowledge of successful approaches that is emerging in education (Darling-Hammond et al., 2019).

The methodology of this research is based on a combination of quantitative and qualitative methods to gain a comprehensive insight into the challenges faced by universities in teaching Generation Z. The study was conducted with a sample of 40 students from universities in the People's Republic of China, divided into two groups of 20 students each. The first group attended traditional lectures, while the second group had access to additional interactive content, such as sports activities, social games, round tables, musical content, and the use of mobile applications in teaching. The quantitative part of the research involves analyzing exam and test results from both groups of students to determine the difference in success between the two teaching methods. The qualitative part includes interviews with students and professors to gain deeper insights into their experiences, challenges, and perceptions related to different teaching methods. A particular focus was placed on the use of mobile applications in the educational process. Students in the second group used mobile apps for data collection, analysis, and result visualization. These activities were integrated into the curriculum as a supplement to traditional teaching methods. Analysis of the results showed that students who used mobile apps achieved better results on final exams compared to students who relied solely on traditional teaching methods.

Additionally, the study examined how engaged students were during class by measuring their activity and interaction with the instructional content. These indicators were also significantly higher in the group that used interactive and digital tools, suggesting that these approaches are more effective in engaging Generation Z. These findings indicate the need for a comprehensive reform of teaching methods at universities, especially in the context of the increasing impact of technology on education. In conclusion, this research provides guidelines for further development and improvement of educational practices that will enable universities to better meet the needs of Generation Z and ensure relevant and effective education for future generations. Positive adult relationships can support student development and welfare, especially when these are culturally sensitive and responsive (Hammond, 2016).

Traditional Methods of Acquiring Knowledge at the University

The traditional methodology of teaching social sciences at the university relies on established pedagogical approaches and didactic models that have developed over many years. This approach to teaching is characterized primarily by a frontal lecture method, where the professor, as the central figure in the educational process, transmits knowledge to students. The professor serves as the primary source of information, while students are recipients of knowledge, often in a passive role. Learning communities are collaborative, interactive, and often interdisciplinary spaces where individuals (learners) with common interests, goals, or educational pursuits come together to exchange their sharable knowledge, experiences, and resources. (Zamiri et al, 2024)

Key Characteristics of Traditional Methodology for University knowledge and skills

Traditional educational methodology is characterized by a strictly structured curriculum, focusing on lectures and the direct transfer of knowledge from teacher to students, often through one-way communication. This methodology emphasizes the importance of memorization and reproduction of information, with little room for flexibility and adaptation to individual student needs. While it provides a stable and proven foundation for education, traditional methodology often neglects dynamic aspects of learning such as interactivity and practical application, which can limit student engagement and skill development. Teachers play a key role in shaping student learning through their own beliefs and the feedback they provide to their students. Their perceptions of students shape expectations that often predict student achievement apart from prior ability (Dweck,2000; Ladson-Billings, 1995, 2009).

a) **Frontal Lectures**

This method involves the professor presenting material to a large group of students. During lectures, the professor presents theoretical concepts, key facts, and relevant examples, while students listen, take notes, and learn. This approach allows for the transfer of a large amount of information to a large number of students in a relatively short period.

b) **Linear Structure of Teaching**

Traditional teaching often follows a predetermined, linear curriculum. Material is presented in a strictly defined sequence, from simpler to more complex topics, with the aim of allowing students to gradually acquire basic concepts before engaging in more in-depth analysis.

c) **Passive Role of Students**

In traditional methodology, students generally have a passive role, as they are expected to listen to lectures, follow presentations, and record information presented by the professor. Interaction between professors and students is often limited to asking questions at the end of lectures or during discussions in a smaller scope.

d) **Written Exams and Essays**

Evaluation in traditional social sciences teaching is often based on written exams, essays, and seminars. These forms of assessment are designed to test the understanding of theoretical concepts and the ability of students to apply acquired knowledge in writing and analysis.

e) **Consistency in Method Application**

Traditional methodology emphasizes consistency in the application of didactic methods. Teachers adhere to pre-defined methods and practices that have been proven through long-term experience. This consistency provides students with a stable learning framework and clarity in expectations.

Advantages of Traditional Methodology

Community colleges are often described as open doors or gateways for improving students' quality of life. These metaphors focus on the entrance point of the educational experience. Increasingly, however, researchers, educators and policy makers are focusing on the desirable exit points: successful course completion, degree or certificate obtainment or transfer (Kuh et al, 2006).

Advantages of traditional methodology are:

- a) **Efficiency in Transmitting Large Amounts of Information**
Due to its structured approach, traditional methodology allows professors to convey significant amounts of information to a large number of students in a relatively short period.
- b) **Clarity in Expectations and Assessment**
Traditional methodology provides clearly defined standards and criteria for evaluation, enabling students to understand what is expected of them and how they will be assessed.
- c) **Depth of Theoretical Analysis**
Emphasis on theoretical concepts and their analysis allows students to gain a deep understanding of the subject area and develop critical thinking skills.

Limitations of Traditional Methodology

Limitations of traditional methodology are:

- a) **Limited Interaction and Creativity**
Traditional methodology often does not encourage active student participation in the learning process, which can result in reduced motivation and engagement. The lack of interaction may also limit the development of creative thinking and innovation.
- b) **Adaptability to Individual Student Needs**
Traditional approaches often overlook individual differences among students, including varying learning styles and levels of prior knowledge, which can lead to unequal learning outcomes.
- c) **Lack of Practical Application**
This methodology may emphasize theory at the expense of practical application, which can be challenging for students studying social sciences, as practical skills are crucial for many professions in this field.

Although traditional methodology has its advantages, it increasingly faces challenges in the modern educational environment. The emergence of new pedagogical approaches, such as interactive and problem-based learning, as well as the use of technology in teaching, prompts a reevaluation of traditional methods and their adaptation to better meet the needs of contemporary students. These changes increasingly highlight the importance of active student participation in the learning process, adaptability of teaching methods to individual needs, and the integration of practical skills relevant to the real world. Despite this, traditional social sciences teaching methodology at the university remains a fundamental part of the educational system, providing a structured and thorough approach to learning that, with certain modifications and modernizations, can be effectively combined with new methods to achieve comprehensive and high-quality education.

Specifics of Generation Z in the People's Republic of China

Generation Z in the People's Republic of China can be examined through several key aspects related to their lifestyle, educational habits, use of technology, and social values:

a) **Digital Literacy and Technological Connectivity**

Generation Z in China grows up in a highly digital environment. This generation is exceptionally connected through the internet and mobile devices, using them as primary tools for communication, education, and entertainment. WeChat, as the dominant application, plays a crucial role in daily life, enabling them to perform various tasks, from communication to online shopping and learning. Their digital literacy is exceptionally high, and technology is an integral part of their lives.

b) **Multitasking and Short Attention Span**

Generation Z is known for their multitasking abilities but simultaneously has a shorter attention span compared to previous generations. In China, this is reflected in their preference for fast, visually stimulating content and brief forms of communication. This affects their approach to learning, where traditional methods often fail to capture their attention, requiring a combination of different methods to keep them engaged.

c) **Pragmatism in Education**

Unlike previous generations, Generation Z in China places significant importance on practical knowledge and skills that can be immediately applied in real life. They are very pragmatic in their approach to education, seeking courses and programs that will provide concrete skills useful for their future careers.

d) **Strong Need for Interaction and Collaboration**

Generation Z in China values interactive and collaborative learning approaches. They prefer learning through discussions, group projects, and digital platforms that enable real-time interaction. Traditional methods, which focus on passive listening and memorization, often do not meet their needs for a dynamic and interactive classroom.

e) **Impact of Social Media and Online Communities**

Social media has a significant impact on the lives of Generation Z in China. They rely on online communities not only for socialization but also for education and information. Platforms like WeChat are used for information exchange, group learning, and support within student communities. This aspect of digital connectivity contributes to shaping their attitudes and values.

f) **Changing Values and Social Awareness**

Generation Z in China shows increased awareness of global and social issues, such as environmental sustainability, social justice, and mental health. While strongly influenced by Chinese culture and values, they increasingly embrace global perspectives and express a desire to contribute to positive societal changes.

These specifics of Generation Z in the People's Republic of China are crucial for understanding their educational needs and preferences and will be central to the analysis of adapting teaching methods and technological tools to enhance their engagement and academic success.

Results and Analysis

The study was conducted with a sample of 40 students, divided into two groups of 20 students each. The first group attended classes using traditional methods, while the second group had the opportunity to learn through an interactive approach that included additional forms of interaction, such as sports and social activities, round tables, musical content, and games. The results of the study showed a significant

difference in achievements between these two groups. Students in the first group, who used traditional learning methods, achieved 23% lower results on final tests compared to students in the second group, who learned through interactive methods. This data clearly indicates that interactive approaches significantly contribute to better knowledge acquisition and improved academic performance.

Additionally, students in the second group worked 45% more on independent assignments and tasks assigned to them. This increased engagement in the group using interactive methods suggests a higher level of motivation and proactivity in learning. Interactive methods, which combine lectures with practical activities, evidently encourage students to participate more actively and better organize their academic responsibilities. Another key finding of the research relates to interaction during and after classes. Students in the second group, who attended interactive classes, asked significantly more questions, both during and after lectures. This group demonstrated a much higher level of interaction compared to students who attended traditional classes. During lectures, students from the interactive group frequently asked questions and actively participated in discussions, which was not a common practice among students in the first group. The study showed interesting results regarding class attendance and student engagement. The group that learned through traditional methods had 22% more individual absences compared to the group that attended interactive classes. This data suggests that interactive teaching methods not only increase student engagement but also reduce absenteeism, likely due to greater motivation and interest in the course content. Additionally, in the group that attended interactive classes, the time dedicated to Q&A sessions at the end of lectures was significantly longer, averaging 17 minutes. This indicates that students in this group were much more active in asking questions and participating in discussions, which further contributed to a better understanding of the material and greater interaction between the professor and students. These results suggest that interactive approaches not only improve class attendance but also foster deeper engagement and interest in the subject.

The data also shows that students from the interactive group had better results in maintaining attention during classes. While students in the traditional group frequently reported a decrease in concentration after 30 minutes of class, students in the interactive group showed a more stable level of attention and focus throughout the entire class. This suggests that shorter, more dynamic segments of teaching and the inclusion of various methods may be key to improving attention and engagement among Generation Z. These results clearly indicate the advantages of interactive teaching methods over traditional approaches. Interactive methods not only enhance academic performance but also increase student engagement, motivation, and proactivity in learning. Introducing such methods into the teaching process can significantly improve the quality of education and better prepare students for future professional challenges.

Conclusion

The research findings clearly highlight the significant advantages of interactive teaching methods over traditional approaches regarding engagement, academic performance, attention, and social interaction for Generation Z. These results emphasize the need to adapt educational methods to better meet the specific needs and preferences of contemporary students. Interactive methods not only enhance academic results and engagement but also contribute to the development of crucial social skills. This approach can improve the educational process and better prepare students for a successful professional life by providing them with the tools and experiences needed to function effectively in dynamic and collaborative environments.

Adapting teaching methods for Generation Z represents a critical step toward creating an educational system that is relevant and effective in modern society. Data indicate that students who participated in interactive teaching activities had a significantly higher level of engagement and motivation compared to students who attended traditional lectures. Specifically, students who engaged in activities such as group projects, social games, and round tables reported feeling more involved and interested in the material. This contrasts with the experiences of students attending classical lectures, as a significant majority reported feeling often disinterested and struggling to maintain attention during longer lectures.

The analysis of student results revealed that those who used interactive methods demonstrated better academic performance compared to those relying solely on traditional methods. Specifically, students in the group that included interactive activities achieved, on average, 15% higher scores on exams and assignments compared to students in the group that attended only traditional classes. This difference in results can be attributed to the higher engagement and motivation fostered by more dynamic and interactive forms of teaching.

The study also shows that students from the interactive group developed better social interaction and communication skills. Activities such as group work and social games allowed students to connect more effectively and develop teamwork skills. This contrasts with students from the traditional group, where social interaction was limited to a minimal level, potentially impacting their ability to communicate and collaborate effectively in a professional setting.

References

- Darling-Hammond, L., Flook, L., Cook-Harvey, C., Barron, B., & Osher, D. (2019). Implications for educational practice of the science of learning and development. *Applied Developmental Science*, 24(2), 97–140. <https://doi.org/10.1080/10888691.2018.1537791>
- Dweck, C. S. (2000). *Self-theories: Their role in motivation, personality, and development*. London, UK: Psychology Press.
- Hammond, Z. (2016). *Culturally responsive teaching and the brain: Promoting authentic engagement and rigor among culturally and linguistically diverse students*. Thousand Oaks, CA: Corwin.
- Kuh, G.D., Kinzie, J., Buckley, J., Bridges, B.K., & Hayek, J.C. (2006). *What Matters to Student Success: A Review of the Literature*.
- Ladson-Billings, G. (1995). Toward a theory of culturally relevant pedagogy. *American Educational Research Journal*, 32 (3), 465–491.
- Ladson-Billings, G. (2009). *The dreamkeepers: Successful teachers of African American Children* (2nd Ed.). San Francisco: Wiley Publishers.
- Zamiri M, Esmaeili A. Methods and Technologies for Supporting Knowledge Sharing within Learning Communities: A Systematic Literature Review. *Administrative Sciences*. 2024; 14(1):17. <https://doi.org/10.3390/admsci14010017>