



Between reels and reality: A comparative study of classroom behaviour, attention span, and learning preferences among Generation Z and millennial students

Dr. Nital Manoj Kothari

Assistant Professor, Department of Commerce, Jai Hind College, Mumbai, Maharashtra, India

*Corresponding Author: Dr. Nital Manoj Kothari

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Abstract

The modern classroom has undergone a remarkable transformation over the past decade. Traditional teaching environments now coexist with smartphones, social media platforms, digital learning applications, and instant online communication. This shift has significantly influenced student behaviour, attention patterns, and learning preferences, especially among Generation Z and Millennial learners. While both generations are technologically aware, their relationship with digital engagement differs considerably due to variations in upbringing, exposure to technology, and social environments.

This research paper explores the comparative classroom behaviour of Generation Z and Millennial students, focusing on digital distraction, attention span, participation styles, and learning expectations. The study analyses how digital exposure affects concentration levels, academic engagement, multitasking habits, and classroom interaction. Primary data was collected through structured questionnaires distributed among college students and postgraduate learners from Mumbai-based institutions. The findings reveal that Generation Z students demonstrate higher digital dependency and preference for interactive learning methods, whereas Millennials display relatively stronger tolerance for traditional lecture-based systems.

The paper does not position technology as harmful but instead examines how educational systems must adapt to changing cognitive and behavioural patterns. The study further highlights the need for balanced teaching strategies that combine technological integration with meaningful academic engagement. The research contributes to ongoing discussions regarding modern educational challenges and offers practical recommendations for educators, institutions, and policymakers attempting to bridge generational learning gaps in higher education.

Keywords: Generation Z, Millennials, Digital distraction, Attention span, Classroom behaviour, Higher education

Introduction

A professor begins explaining an important marketing concept in a college classroom. A Millennial student sitting in the front row attentively takes handwritten notes while occasionally searching for references on a laptop. A Generation Z student sitting nearby listens carefully for a few minutes before instinctively checking a smartphone notification, replying to a message, and returning attention to the lecture.

Both students are intelligent, capable, and interested in learning. Yet their interaction with the classroom environment is noticeably different.

This difference reflects a larger transformation taking place in educational institutions worldwide. Classrooms are no longer isolated academic spaces. They are connected to a constantly active digital ecosystem where social media notifications, short-form content, online communication, and multitasking compete continuously for student attention.

Millennials, generally born between 1981 and 1996, experienced the transition from offline to online lifestyles. Many grew up during the early stages of internet development and gradually adapted to technological advancements. Generation Z, born after the mid-1990s, entered a world where

smartphones, Wi-Fi connectivity, and social media already existed. For Gen Z students, digital interaction is not an addition to life; it is integrated into everyday existence.

As educational systems attempt to adapt to changing learning environments, understanding these generational differences becomes increasingly important. The purpose of this study is to examine how classroom engagement, digital distraction, learning behaviour, and attention patterns vary between Millennials and Generation Z students in higher education.

The study also aims to understand whether modern educational structures are evolving quickly enough to address these behavioural changes.

Review of literature

Several researchers have examined the relationship between technology usage and academic engagement among younger generations. Nicholas Carr argued that constant internet exposure may influence deep thinking and sustained concentration abilities. His work highlighted concerns regarding fragmented attention caused by digital environments. Junco (2012) [2] found that excessive multitasking during lectures negatively affected academic performance among

college students. The study revealed that students engaging with social networking platforms during class often demonstrated reduced comprehension and lower retention levels.

Kirschner and De Bruyckere (2017) [3] challenged the popular belief that digital natives possess superior multitasking abilities. Their research suggested that simultaneous engagement with multiple digital activities may actually reduce learning efficiency and cognitive depth.

Research conducted by the Organisation for Economic Co-operation and Development also highlighted that technology integration in education can improve accessibility and engagement when implemented effectively, but excessive digital dependence may create distractions that influence learning quality.

Twenge (2017) [6] discussed the behavioural characteristics of Generation Z and observed that constant connectivity has shaped social interaction, emotional responses, and attention patterns differently compared to earlier generations.

Existing literature strongly indicates that technological environments influence student behaviour. However, limited comparative studies specifically examine the classroom behavioural differences between Millennials and Generation Z within Indian higher education contexts. This study attempts to address this gap.

Research gap

Previous studies have primarily focused either on digital distraction or general technology adoption among students. Limited research has comparatively analysed the behavioural differences between Millennials and Generation Z learners in classroom environments, particularly in Indian urban colleges. Additionally, many studies discuss technology in either extremely positive or highly critical ways. There remains a need for balanced research that recognises both the opportunities and challenges associated with digital integration in education.

This study attempts to provide practical and relatable insights into how generational differences influence modern classroom experiences.

Objectives of the study

The objectives of this research are:

- To analyse the classroom behaviour patterns of Generation Z and Millennial students.
- To examine the impact of digital distraction on academic engagement.
- To compare learning preferences between Millennials and Generation Z learners.
- To identify teaching approaches suitable for modern classrooms.
- To understand the relationship between attention span and digital exposure.

Research methodology

The study adopted a descriptive research design to understand behavioural and learning differences between Generation Z and Millennial students.

Primary data was collected through structured questionnaires distributed among undergraduate and postgraduate students from colleges in Mumbai. Secondary data was obtained from academic journals, books, research articles, and educational reports.

A convenience sampling method was used for data collection.

The sample size consisted of 120 respondents:

- 70 Generation Z students
- 50 Millennial students

The questionnaire included questions related to:

- Classroom attention span
- Smartphone usage during lectures
- Learning preferences
- Multitasking habits
- Participation levels
- Digital dependency

Percentage analysis and comparative interpretation methods were used for data analysis.

The study followed Emirates Scholar formatting guidelines, including structured research organisation, academic referencing, and practical discussion-based presentation.

Data analysis and interpretation

Table 1: Average daily smartphone usage during academic hours

Student group	Less than 2 hours	2–4 hours	More than 4 hours
Millennials	36%	44%	20%
Generation Z	12%	38%	50%

Interpretation

The data indicates significantly higher smartphone engagement among Generation Z students during academic hours. Half of the Gen Z respondents reported using smartphones for more than four hours daily, reflecting greater digital dependency and constant online connectivity.

Millennials, although digitally active, demonstrated comparatively moderate smartphone usage patterns.

Table 2: Preferred learning style

Learning Style	Millennials	Generation Z
Traditional Lectures	46%	18%
Interactive Learning	34%	52%
Video-Based Learning	20%	30%

Interpretation

Generation Z students strongly preferred interactive and visually engaging learning methods. Traditional lecture-based teaching showed lower preference among Gen Z respondents. Millennial students displayed relatively greater acceptance of conventional classroom instruction.

This suggests that educational systems may need to integrate participative teaching strategies to improve modern classroom engagement.

Table 3: Frequency of multitasking during lectures

Frequency	Millennials	Generation Z
Rarely	40%	12%
Sometimes	42%	36%
Frequently	18%	52%

Interpretation

Generation Z students reported significantly higher multitasking behaviour during lectures. Many respondents admitted switching between academic and non-academic activities while attending classes.

Millennials showed comparatively lower multitasking frequency, indicating stronger focus retention during lectures.

The findings align with existing cognitive research suggesting that continuous digital interaction may encourage fragmented attention patterns.

Table 4: Attention Retention During Long Lectures

Attention span level	Millennials	Generation Z
High	48%	20%
Moderate	36%	44%
Low	16%	36%

Interpretation

Millennial respondents demonstrated relatively stronger tolerance for long-duration lectures. Generation Z students showed lower sustained attention levels, particularly during passive teaching sessions without interaction or visual engagement.

This does not necessarily indicate lack of intelligence or academic capability. Instead, it reflects changing attention environments influenced by rapid digital content exposure.

Discussion

The findings of the study reveal meaningful behavioural differences between Millennials and Generation Z learners within higher education environments.

Generation Z students displayed greater digital dependency, preference for fast-paced learning formats, and higher multitasking tendencies. Constant exposure to reels, short videos, notifications, and instant communication appears to have shaped expectations regarding information consumption. Long uninterrupted lectures often struggle to maintain engagement among Gen Z learners because modern digital platforms condition users to receive information rapidly and interactively.

Millennial students, while technologically aware, appeared more comfortable with structured classroom systems and comparatively longer attention spans.

However, the findings should not be interpreted as criticism of Generation Z. Educational environments themselves are evolving alongside technological developments. Students are adapting to a world where multitasking and continuous connectivity are normalised.

Interestingly, several respondents from both generations admitted that they often use smartphones during lectures even

when genuinely interested in the subject. This suggests that digital distraction is not purely linked to academic disinterest but also to habitual attention switching.

The study also highlights that students respond positively to humour, classroom interaction, practical examples, visual content, and discussion-oriented teaching approaches.

Modern education therefore requires adaptation rather than resistance.

Case study 1: The silent notification effect

A postgraduate management classroom in Mumbai introduced a policy encouraging students to place phones face down during lectures without completely banning device usage.

Initially, many Generation Z students appeared uncomfortable with the adjustment. Several students admitted feeling anxious about missing notifications during class sessions.

However, after two weeks, faculty members observed increased participation, improved eye contact, and more active classroom discussion. Students themselves reported better understanding of lecture content and reduced mental fatigue.

Interestingly, the institution did not remove technology entirely. Instead, it structured digital engagement more consciously.

The case demonstrates that small behavioural interventions can improve classroom attention without adopting overly restrictive policies.

Case study 2: Interactive teaching and student engagement

A commerce professor teaching business communication noticed declining attention during traditional PowerPoint lectures. Instead of increasing strictness, the professor redesigned sessions using short discussion segments, live polling tools, practical examples, and brief collaborative activities.

Within one semester, attendance and participation levels improved considerably, especially among Generation Z students.

Students reported that the sessions felt “faster,” “more practical,” and “easier to remember.”

The case highlights an important reality of modern education: engagement often improves when students become active participants rather than passive listeners.

Findings of the study

The study identified several important findings.

Generation Z students demonstrate higher digital dependency compared to Millennials.

Millennials possess relatively stronger tolerance for traditional classroom methods.

Generation Z learners prefer interactive, visual, and participative teaching approaches.

Frequent multitasking during lectures is more common among Gen Z students.

Long passive lectures reduce classroom engagement among younger learners.

Digital distraction affects attention retention across both generations, although the intensity differs.

Students respond positively to humour, practical examples, and technology-integrated learning methods.

Recommendations

Educational institutions should gradually redesign classrooms to align with evolving learning behaviour patterns.

Interactive teaching methods such as discussions, live quizzes, case studies, and collaborative learning activities should be encouraged.

Technology should be integrated meaningfully instead of being viewed only as a distraction.

Faculty development programmes can help educators adapt teaching strategies suitable for digitally engaged classrooms.

Students should also be encouraged to develop healthier digital habits, including focused listening periods and controlled multitasking practices.

Most importantly, educational systems should aim for balance rather than extremes. Completely rejecting technology is unrealistic, while uncontrolled digital dependence may reduce learning quality.

Limitations of the study

The study was limited to selected colleges in Mumbai and therefore may not represent all educational institutions.

The sample size was relatively limited.

Behavioural responses depended partly on self-reported perceptions, which may involve respondent bias.

Rapid technological changes may influence future behavioural trends differently.

Future scope of the study

Future studies may compare behavioural differences across additional generations, including Generation Alpha.

Further research can examine the long-term impact of artificial intelligence, virtual classrooms, and immersive digital learning technologies on attention span and academic performance.

Comparative studies between urban and rural educational institutions may also provide valuable insights.

Conclusion

The modern classroom represents more than an academic environment. It reflects broader technological and social transformations shaping everyday human behaviour.

Generation Z and Millennial students approach learning differently because they have experienced technology differently. Millennials adapted to digital life, while Generation Z was born directly into it.

This distinction influences classroom attention, communication styles, multitasking habits, and learning expectations.

However, digital distraction should not simply be viewed as a problem requiring strict control. It is a reality emerging from evolving technological ecosystems and changing behavioural patterns.

The future of education will depend not on eliminating technology but on learning how to coexist with it intelligently.

Perhaps the modern professor no longer competes only with boredom or classroom noise. Today, education competes with notifications, reels, instant messages, and endless scrolling.

Yet meaningful learning remains possible when classrooms evolve from passive information spaces into engaging human experiences.

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