Beyond Absenteeism: Understanding Generation Z Classroom Attendance Behaviour in Higher Education through a Thematic Synthesis and Conceptual Framework

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Abstract

Classroom attendance has become harder to understand in higher education. Generation Z students learn in digitally mediated settings, hold changing expectations of their education, and juggle academic and personal demands. Earlier research has identified many factors that influence attendance, but it has mostly examined them one at a time, and little is known about how they interact to shape Classroom Attendance Behaviour (CAB). To address this gap, this study draws on a thematic synthesis of existing literature to develop the Generation Z Classroom Attendance Ecosystem Framework (GZ-CAEF). The framework combines five complementary theories: Self-Determination Theory, Student Engagement Theory, Expectancy-Value Theory, the Theory of Planned Behaviour, and the Technology Acceptance Model. It treats CAB as the product of six interrelated factors: Student Motivation, Teaching Practices, Technology, Student Well-being, Institutional Environment, and Societal Influences. Together, these shape whether students choose to take part in classroom learning and how well they learn. In this way, the study reframes attendance as a multidimensional behaviour embedded in the wider higher education ecosystem, not simply physical presence in a room. By building on established theory, the framework offers a more integrated explanation of attendance than earlier work and gives institutions, teachers, and policymakers a basis for strengthening engagement through learner-centred approaches. It also provides a starting point for empirical testing, cross-context comparison, and evidence-based policy in contemporary higher education.

Keywords: Classroom Attendance Behaviour, Higher Education, Student Engagement, Thematic Synthesis, Conceptual Framework, Educational Technology.

Introduction

Attendance at institute has been taken for granted as a key part of learning and teaching in higher education for years (Astin, 1993; Kuh, 2009). Face-to-face class participation allows for enhanced academic engagement, cooperative learning, critical thinking and meaningful interactions between students and instructors (Astin, 1993; Tinto, 1993). In addition to the impact on academic outcomes, classroom attendance promotes communication skills, collaborative teamwork, professionalism, and socialization, fostering overall student growth and development (Credé et al., 2010). Therefore, keeping satisfactory attendance has remained a major concern to HEIs around the globe (Moores et al., 2019).

Attendance is an issue that is acknowledged as a key problem despite its importance and yet, it is becoming more common place, especially for the generation Z students who are being typically defined as those born from the late 1990s to the early 2010s. This generation has grown up in a technologically interconnected society, and has never had greater access to information, online learning, mobile technology, or social media (Francis & Hoefel, 2018; Prensky, 2001; Seemiller & Grace, 2016). They have very different learning styles, communication and expectations from previous generations (Alruthaya et al., 2021; Seemiller & Grace, 2016; but see Kirschner & De Bruyckere, 2017). The COVID-19 pandemic and the rapid growth of digital learning technologies have dramatically changed students' expectations for how they will learn and participate in a classroom setting (Aristovnik et al., 2020; Bond et al., 2021). Traditional ideas of students learning in the classroom through physical attendance are now not the only or even most important way in which they learn and this has raised concerns about students' participation and engagement in higher education classrooms (Edwards & Clinton, 2019; Massingham

& Herrington, 2006).

There is no single explanation for declining classroom attendance (Moore et al., 2008; Moores et al., 2019). Previous research has shown that there are many factors which affect students' decisions about whether to attend classes, such as teaching quality, teaching methods, student motivation, mental health, peer influence, institutional policies, technological access, workload, employment commitments, and family responsibilities (Massingham & Herrington, 2006; Moores et al., 2019). More recently, the impact of digital learning resources, recorded lectures, the use of artificial intelligence and flexible learning environments on students' attendance decisions have also been emphasized (Edwards & Clinton, 2019). These studies have greatly contributed to the understanding of individual determinants, but generally they look at these determinants individually, and give only partial explanations to students' classroom attendance behaviour for Generation Z (Moores et al., 2019).

Classroom attendance is complex because it mirrors the overall changes in higher education today. All students are continually juggling university expectations, personal aspirations, technology options, work obligations and social obligations. It has therefore become a non-compulsory requirement of the institution to attend and a behavioral choice that depends on a complex interaction of factors (Ajzen, 1991; Moore et al., 2008). The concept of decision-making process needs to go beyond the traditional explanations that look at absenteeism or attendance policies, and move toward a more holistic approach that takes into account the dynamic nature of the relationships among personal, pedagogical, technological, institutional, and societal factors (Kearney et al., 2022).

Despite the increasing body of literature on classroom attendance, there is relatively little work that has attempted to integrate the various viewpoints into a coherent conceptualization. Previous reviews often classify determinants of attendance, but rarely describe the interaction between determinants and how these interact to influence students' behaviors (Credé et al., 2010; Moores et al., 2019). This conceptual disintegration restricts theory building and educators and policymakers' capacity to design coordinated approaches which promote meaningful engagement in the classroom for students of the Generation Z.

To meet this need, the present paper proposes Generation Z Classroom Attendance Ecosystem Framework (GZ-CAEF) based on a thematic synthesis of the literature (Thomas & Harden, 2008). Attendance is not considered a standalone learning outcome but as an outcome of a multi-faceted process involving Student Motivation, Teaching Practices, Technology, Student Wellbeing, Institutional Environment and Societal Influences that culminates in classroom attendance behaviour and learning outcomes. The framework brings these aspects together and in a unified conceptual model to acquire a more holistic picture of the formation of the attendance decision in today's higher education.

This paper makes three contributions to the literature. First, it brings together disarticulated evidence about the attendance of Generation Z in the classroom in a coherent theme. Second, it presents a new conceptual model of the attendance behaviour, the Generation Z Classroom Attendance Ecosystem Framework (GZ-CAEF). Third, it helps develop a framework for future empirical studies and gives some guidance for higher education institutions aiming to better engage students, participate in the classroom, and build learning outcomes in the digital educational era.

2. Theoretical Foundations

A multi-dimensional theoretical approach beyond the traditional explanation of absenteeism is necessary to comprehend classroom attendance behaviour of Generation Z students. The psychological, pedagogical, technological, institutional and social factors are all in play and no single theory can fully account for students' behavioural choices when deciding on attendance. Therefore, this paper builds on the conceptual base of Self-Determination Theory (SDT), Student Engagement Theory, Expectancy–Value Theory (EVT), Theory of Planned Behaviour (TPB) and the Technology Acceptance Model to form the conceptual foundation of the proposed Generation Z Classroom Attendance Ecosystem Framework (GZ-CAEF) (Ajzen, 1991; Astin, 1993; Davis, 1989; Deci & Ryan, 1985, 2000; Eccles & Wigfield, 2002; Fredricks et al., 2004; Venkatesh et al., 2003).

Self Determination Theory is a valuable theoretical framework to understand students' intrinsic and extrinsic motivation to learn (Deci & Ryan, 1985, 2000). The theory suggests that people will be more likely to be actively involved in educational activities if their needs for autonomy, competence and relatedness are met (Deci & Ryan, 2000). In higher education, classroom attendance is affected by the institutional needs to attend classes as well as students' perceptions of whether classroom experiences meet these psychological needs. Intrinsic motivation is fostered through interactive teaching, meaningful learning experiences, constructive feedback and supportive faculty relationships, leading to regular participation in the classroom (Deci & Ryan, 2000; Pintrich, 2003).

Student Engagement Theory backs up this view by focusing on the importance of students getting involved in the academic, behavioural, and emotional dimensions of learning as well as in the cognitive dimension of learning (Astin, 1993; Fredricks et al., 2004). One aspect of students' engagement that is more easily observed is their presence in class; however, this alone is not a

measure of effective engagement because it relies on quality learning experiences (Kahu, 2013; Kuh, 2009; Zepke, 2017). Today's generation Z students increasingly look for opportunities to collaborate with others, to experience things first-hand, to be taught using technology and to be actively involved in their learning process (Seemiller & Grace, 2016). This means that levels of attendance are strongly correlated with how relevant and valued the education is to students (Kahu & Nelson, 2018).

The Expectancy Value Theory also helps to explain the factors that influence student attendance decisions by suggesting that students consider the benefits they expect to gain from attending class and the costs they perceive attending the class will bring (Eccles & Wigfield, 2002). A learner is likely to attend classes when he or she thinks that attendance will benefit academic achievement, skill acquisition or employment. However, if students believe that recorded lectures or other digital resources can meet their learning needs, their perceived value of attending in person may diminish; the specific effect of AI tools on attendance requires direct empirical evidence (Edwards & Clinton, 2019). This view underscores the need to plan learning opportunities in the classroom that provide unique learning experiences that go beyond the transfer of content.

Nevertheless, the Theory of Planned Behaviour extends the analysis by acknowledging that attendance is a psychological intention in which beliefs about the social norms, expectations, perceived behavioural control, and attitudes of the individual play a role (Ajzen, 1991). Student attendance is related to their beliefs about the value of regular attendance, their peers' beliefs, their expectations from the school, the expectations of their families, and other personal factors, including their health, work demands, and time constraints (Ajzen, 1991; Moores et al., 2019). Thus, attendance is not just a matter of doing what is required by the institution, but a conscious decision made by the students.

Digital technologies have increased classroom attendance behaviour complexity. The Technology Acceptance Model is that students have come to increasingly judge educational technologies according to how useful they are, how easy they are to use, and how compatible they are with their own learning styles (Davis, 1989; Venkatesh et al., 2003). In the past, access to educational resources was limited to physical classrooms or on-campus lecture halls. Educational resources were traditionally available in physical classrooms or on-campus lecture halls. These technologies are frequently used by Generation Z students as an addition or an alternative method of learning and can impact their own participation in the physical classroom (Alruthaya et al., 2021; Edwards & Clinton, 2019).

Taken together, these theoretical approaches suggest that attendance is a complex phenomenon, arising from the interplay of students' motivations, learning experiences, technological opportunities, institutional contexts and social factors (Ajzen, 1991; Deci & Ryan, 2000; Eccles & Wigfield, 2002; Fredricks et al., 2004; Venkatesh et al., 2003). No single theory can explain all of these processes. The Generation Z Classroom Attendance Ecosystem Framework (GZ-CAEF) is built on this integrated understanding. It treats classroom attendance behaviour as the outcome of six mutually reinforcing dimensions: student motivation, teaching practices, technology, student well-being, the institutional environment and societal influences. Together, these dimensions shape learning outcomes in a modern higher education institution. By drawing on complementary theoretical frameworks, the framework offers a fuller explanation of attendance patterns among teachers and students in the classroom, and it gives future empirical research a conceptual basis.

3. Existing Evidence and Thematic Synthesis (Literature Review)

This paper adopts a narrative, concept-oriented review with thematic synthesis rather than a systematic review or meta-analysis. The literature discussed was selected for its relevance to Generation Z, higher education, classroom attendance, absenteeism, student engagement, educational technology, and factors associated with attendance behaviour. The review draws on the sources cited throughout the manuscript, including foundational theoretical works and empirical studies addressing pedagogical, motivational, technological, well-being, institutional, and social influences on student participation. The synthesis compared recurring concepts and findings across these strands of literature and grouped them into descriptive themes. These themes were then interpreted together to develop the six dimensions of the Generation Z Classroom Attendance Ecosystem Framework (GZ-CAEF). The analytical approach follows the general logic of thematic synthesis described by Thomas and Harden (2008), in which findings are coded, grouped into descriptive themes, and interpreted to develop higher-order insights. Because a complete search log and screening counts were not available for this manuscript, the review does not claim exhaustive coverage of the literature or report database-level record counts. Its purpose is to provide an integrated conceptual interpretation of relevant research and identify directions for subsequent empirical testing.

As the problem of low classroom attendance has become a serious issue, it has garnered considerable interest in higher education research (Kearney et al., 2022; Moores et al., 2019). Much of the early research focused on attendance as a cause of student success, and frequently drew a positive correlation between regular attendance at class and student achievement (Credé et al., 2010; Gump,

2005). However, a more recent research acknowledges that attendance behaviour is much more complex and depends on a web of pedagogic, psychological, technological, institutional and socio-cultural factors (Astin, 1993; Edwards & Clinton, 2019; Eisenberg et al., 2009; Freeman et al., 2014; Tinto, 1993). This change in focus has grown the literature to move beyond just measuring attendance to examining the behaviour processes that impact students' choices to participate or not in classroom learning. However, the current evidence is incomplete and focuses on the determinants in isolation from the other determinants as parts of an integrated education ecosystem (Moores et al., 2019).

Table 1: Summary of Existing Literature on Generation Z Classroom Attendance

Theme	Major Issues Identified	Representative Findings
Teaching Practices	Interactive pedagogy, assessment, feedback	Interactive classrooms encourage attendance
Student Motivation	Intrinsic and extrinsic motivation	Motivation influences attendance behaviour
Technology	LMS, AI, online learning, recorded lectures	Technology may facilitate or substitute attendance
Student Well-being	Stress, anxiety, burnout	Well-being affects classroom participation
Institutional Environment	Policies, infrastructure, support	Student-centred institutions improve engagement
Societal Influences	Family, peers, employment	External environment shapes attendance decisions

Source note: Author's synthesis of the cited literature, including Massingham and Herrington (2006), Credé et al. (2010), Edwards and Clinton (2019), and Moores et al. (2019). The table summarizes themes rather than reporting a new empirical analysis.

3.1 Teaching Practices and Learning Experience

One of the most common reasons cited for class absence is the quality of the teaching (Massingham & Herrington, 2006; Moores et al., 2019). Research has always shown that students can be better engaged and more likely to attend classes where they are able to discuss subjects interactively, learn through problem solving, participate in collaborative tasks, receive prompt feedback, and are able to actively engage (Freeman et al., 2014; Prince, 2004; Prince & Felder, 2006). Traditional lecture teaching models, however, with one-way teaching, will limit students' feelings on the value of class participation and participation, especially when the same information is accessible online (Edwards & Clinton, 2019; Massingham & Herrington, 2006).

Generation Z are keen on experiential and learner-centred pedagogies that promote collaboration, critical thinking, and application to the real world (Biggs & Tang, 2011; Seemiller & Grace, 2016). As a result, the motivation to attend class is becoming more dependent on students' beliefs that what is happening in the classroom provides valuable learning experiences that they do not have the opportunity to get at home on their own (Eccles & Wigfield, 2002). The findings point to the role of the teaching practice not just as a determinant of teaching quality but as a determinant of student attendance when it improves the overall learning experience (Chickering & Gamson, 1987; Michael, 2006).

3.2 Student Motivation and Engagement

Another key area that has become central in the attendance literature has been student motivation. Intrinsic factors (personal interest and academic aspirations) and Extrinsic factors (grades, attendance policies and career expectations) all affect the extent of involvement in a classroom (Deci & Ryan, 2000; Moore et al., 2008). More research suggests that students who are emotionally and cognitively engaged are more likely to attend classes regularly and to persist in university studies (Fredricks et al., 2004; Kahu & Nelson, 2018; Pintrich, 2003).

But the motivation of 'Generation Z' students seems to be shifting in a more dynamic and situational way (Seemiller & Grace, 2016). Students do not attend classes only because they are expected to; many assess the personal, practical, and immediate usefulness and relevance of classes (Eccles & Wigfield, 2002; Massingham & Herrington, 2006). Attendance is not necessarily an indicator of obligation alone, but an indicator of an ongoing behavioural decision based on students' perception of their level of engagement, level of autonomy and effectiveness of learning (Ajzen, 1991; Bandura, 1986; Deci & Ryan, 2000; Schunk, 2012; Zimmerman, 2002).

3.3 Technology and Digital Learning Environment

Digital technologies have changed higher education and are set to continue changing it (Bond et al., 2020). Digital technologies are transforming higher education and are likely to continue transforming higher education. The use of learning management systems, recorded lectures, virtual classrooms, AI applications, educational videos, and online

collaboration tools has brought knowledge to the students beyond the confines of the classroom (Bond et al., 2020; Edwards & Clinton, 2019). These technologies allow for increased flexibility and accessibility in learning, but have also changed students' understanding of attending classes (Bond et al., 2021).

Digital resources serve as complementary and/or replacement tools for physical resources for many students in Generation Z (Alruthaya et al., 2021; Edwards & Clinton, 2019). Some work indicates that if classroom learning largely duplicates material available online, students may perceive less benefit in attending in person (Edwards & Clinton, 2019; Massingham & Herrington, 2006). Technology embedded in interactive and collaborative pedagogies can, on the other hand, reinforce engagement and promote attendance (Bond et al., 2020). The results show that technology is not necessarily a positive or negative force when it comes to attendance, but rather its impact is reliant on the way technology is incorporated into learning (Davis, 1989; Edwards & Clinton, 2019; Venkatesh et al., 2003).

3.4 Student Well-being and Personal Circumstances

Student well-being and attendance behaviour are also a growing area of interest. Factors impacting classroom participation include mental health issues, academic stress, anxiety, burnout, sleep issues, financial issues, and work-study commitments (Eisenberg et al., 2009; Stallman, 2010). COVID-19 has put a spotlight on the importance of psychological and emotional issues to educational engagement, especially now that awareness of student well-being is growing (Aristovnik et al., 2020; Son et al., 2020).

The Generation Z students are often juggling with a lot of academic and personal responsibility, and they need to prioritize demands all the time (Seemiller & Grace, 2016). Attendance is thus more than the academic learning environment and is often related to other matters of health, work, family and personal resilience (Baik et al., 2019; Eisenberg et al., 2009). This study further confirms the importance of considering attendance as part of a broader picture of children's wellbeing and not just an academic behaviour.

3.5 Institutional Environment and Policy

The characteristics of institutions are also important factors affecting attendance behaviour (Tinto, 1993). The educational experiences of students are influenced by attendance rules, assessment methods, classroom arrangements, campus facilities, institutional norms, administrative assistance, and the provision of student services (Kuh et al., 2006; Pascarella & Terenzini, 2005). There is evidence that the type of institutional conditions that foster effective communication, student-centred policies, and access to learning resources positively affect classroom participation (Astin, 1993; Coates, 2005; Kuh et al., 2006; Tinto, 1993).

But it's not all been successful with compulsory attendance policies (Credé et al., 2010). Policies that might enhance attendance over the short term may not be effective at improving engagement or quality of learning (Moores et al., 2019). More and more, researchers have suggested that universities and colleges should strive to develop learning spaces where students see classroom involvement as valuable instead of required (Deci & Ryan, 2000; Healey et al., 2014; Kuh, 2009).

3.6 Social and Environmental Influences

Factors outside of the classroom also influence attendance behaviour. Students' educational decisions are shaped by peer network, family expectations, employment expectations, cultural values, and a society's attitudes toward higher education (Ajzen, 1991; Astin, 1993; Tinto, 1993). Peer attendance may influence individual participation decisions through perceived social norms; this proposed relationship should be interpreted in line with the broader Theory of Planned Behaviour literature (Ajzen, 1991; Astin, 1993; Pascarella & Terenzini, 2005).

Additionally, expectations of the labour market, greater flexibility in learning structure and strong digital connectivity have had an impact on students' expectations of classroom learning (Francis & Hoefel, 2018; Seemiller & Grace, 2016). Generation Z wants education experiences that are more in line with their career goals, technological savvy and personal flexibility (Seemiller & Grace, 2016). These broader aspects of society indicate that the question of attendance should be viewed from a more holistic perspective of education, beyond the institutional and individual.

Table 2: Major Themes Identified Through Thematic Synthesis

Theme	Evidence from Literature	Emerging Insight
Teaching Practices	Active learning increases attendance	Teaching influences perceived classroom value
Student Motivation	Motivation predicts participation	Attendance is behaviour-driven
Technology	Digital learning changes attendance decisions	Technology acts as both facilitator and substitute
Well-being	Mental health affects participation	Attendance depends on holistic well-being
Institutional	Institutional support encourages	Policies alone are insufficient

Environment	attendance	
Societal Influences	Peer and family factors matter	Attendance extends beyond campus

Source note: Author's synthesis based on the literature discussed in Sections 3.1–3.6, including Thomas and Harden (2008) as the thematic-synthesis approach. Interpretive insights are the author's synthesis, not direct quotations from individual studies.

3.7 Identified Research Gaps in the Literature:

According to the thematic synthesis, pedagogic, psychological, technological, institutional and societal factors are all playing a role in the classroom attendance of Generation Z students (Thomas & Harden, 2008). While the previous research is helpful for each of these dimensions, there are four important gaps. First, the literature is still more or less disorganized and there is still limited integration between these inter-connected themes. Second, attendance is often considered an educational goal instead of a behavioural choice that is influenced by a number of interacting factors. Third, previous research is mostly focused on individual factors and attendance, with limited knowledge of the wider attendance context. Last but not least, there is the lack of an extensive conceptual framework that could incorporate these aspects into a holistic explanation of the students from Generation Z attendance behaviour in the classroom.

In response to these gaps, this paper puts forward the Generation Z Classroom Attendance Ecosystem Framework (GZ-CAEF). The framework treats attendance behaviour as the product of dynamic interactions among student motivation, teaching practices, technology, student well-being, the institutional environment and societal influences. In doing so, it moves scholarship past fragmented explanations and offers a basis for further theoretical development, empirical validation and evidence-informed educational practice.

Table 3: Research Gaps and the Need for the GZ-CAEF

Research Gap	Evidence	How GZ-CAEF Addresses It
Fragmented literature	Factors studied independently	Integrates all dimensions
Limited behavioural perspective	Attendance treated as an outcome	Explains attendance behaviour
Lack of interaction among variables	Direct relationships dominate	Introduces ecosystem interactions
Absence of conceptual framework	No integrated model	Develops GZ-CAEF
Limited guidance for institutions	Few holistic recommendations	Supports integrated educational strategies

Source note: Research gaps are the author's interpretation of the reviewed literature; see Credé et al. (2010), Moores et al. (2019), and Thomas and Harden (2008).

4. Designing the Generation Z Classroom Attendance Ecosystem Framework (GZ-CAEF)

The thematic synthesis in the previous step shows that classroom attendance among Generation Z students is shaped by many interconnected factors and not by any single one. Research has made real progress in understanding technology adoption, student motivation, well-being, institutional support, social influences and teaching practices (Ajzen, 1991; Davis, 1989; Deci & Ryan, 2000; Eisenberg et al., 2009; Freeman et al., 2014; Tinto, 1993). Yet these dimensions have mostly been studied separately, which has produced disjointed accounts of attendance behaviour. Such separation overlooks how the dimensions depend on one another and makes it harder to design holistic strategies for improving participation at the classroom level. To address this limitation, the present paper introduces the 'Generation Z Classroom Attendance Ecosystem Framework (GZ-CAEF)'. It is an integrated conceptual model that explains classroom attendance as a behavioural outcome of multiple educational, technological, institutional and societal influences.

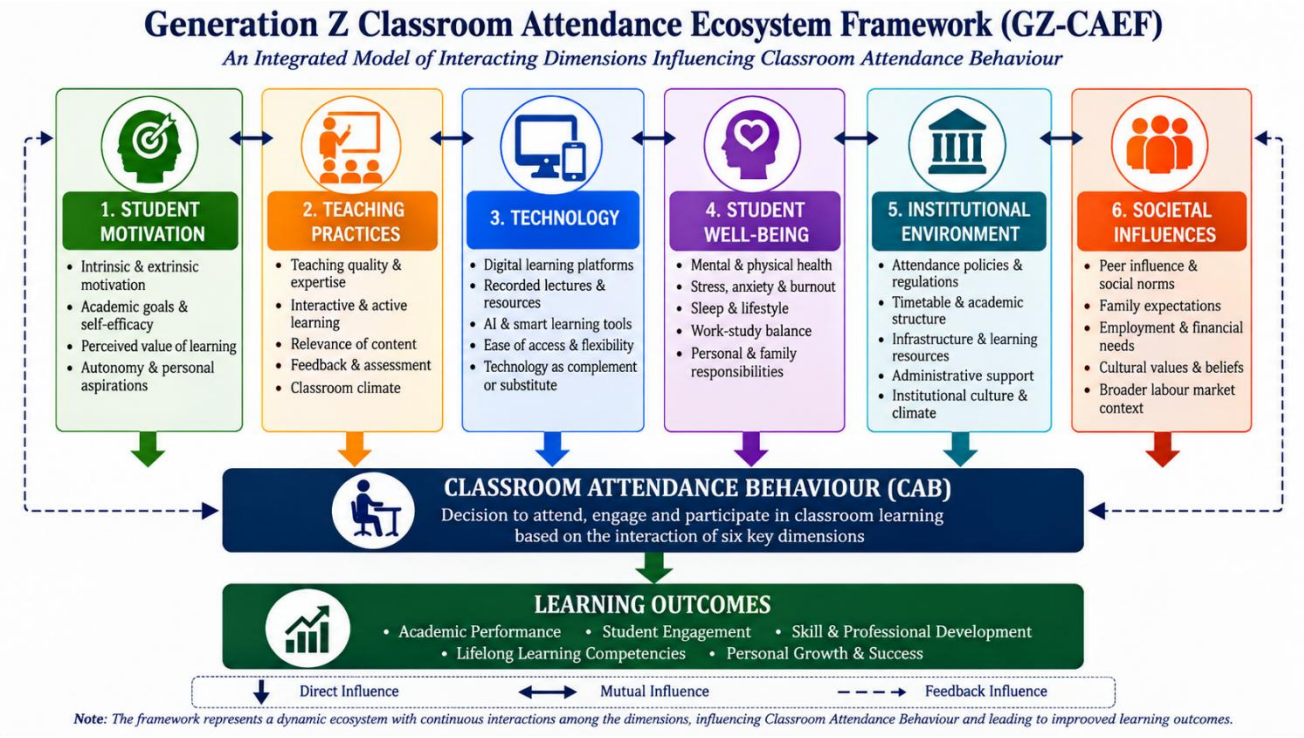

Figure 1: Generation Z Classroom Attendance Ecosystem Framework (GZ-CAEF)
"Source: Author's own conceptualization based on the literature reviewed."

4.1 Key Principles of the Framework

The GZ-CAEF is based on the understanding that attendance in class should not be taken as simply being in a lecture but also as a behavioural choice that is continuously assessed based on the value of learning in the classroom, individual circumstances, technological alternatives, and institutional experiences (Ajzen, 1991; Eccles & Wigfield, 2002). Generation Z students are active in learning journey, regularly evaluate whether going to a learning session in the classroom is a worthwhile investment in their academic, professional or personal development when they have other options available to them (Seemiller & Grace, 2016).

Hence the framework will take an ecosystem approach, acknowledging that attendance behaviour is a product of multiple interactions, not isolated. Focusing on improving teaching could lead to improvements in motivation and focusing on institutional support could lead to improvements in well-being and engagement. Likewise, technology can support student engagement in the classroom by enabling interactive learning or decrease attendance if the digital substitute is seen as sufficiently as effective as classroom learning (Edwards & Clinton, 2019). Attendance behaviour, therefore, shows the overall performance of all the elements of the education system, and not the influence of any individual element.

4.2 Architectural design of the Framework

The GZ-CAEF is a six-dimensional framework that captures the interconnectedness between the dimensions which collectively affect students' classroom attendance behaviour. The GZ-CAEF model differs from previous attendance models that have studied the relationships between each of the individual determinants and attendance by considering the dimensions as a relationship ecosystem that is mutual and dynamic (Moores et al., 2019). Students' attendance is thus considered a result of the interaction between personal motivation, pedagogical experiences, technological environments, institutional support, social influences, and psychological well-being. The framework includes the following aspects:

- Student Motivation
- Teaching Practices
- Technology
- Student Well-being
- Institutional Environment
- Societal Influences

These dimensions all have an impact on Classroom Attendance Behaviour which in turn affects Learning Outcomes including academic achievement, engagement, professional development and lifelong learning competencies.

4.3 Core Dimensions of the GZ-CAEF

Student Motivation: Good student motivation is the key psychological motive affecting the attendance of students in the classroom (Deci & Ryan, 2000). It is the manifestation of students' intent to join classroom learning activities in accordance with their academic aspirations, the meaning of what they learn, self-efficacy, and personal aspirations (Bandura, 1986; Eccles & Wigfield, 2002). The premises of the framework are that motivated students will be more likely to attend class when they believe there is a value in it and opportunities for intellectual development.

Teaching Practices: One of the most positive institutional influences on attendance behaviour is teaching practices (Freeman et al., 2014; Massingham & Herrington, 2006). Students feel the value of the classroom through interactive teaching, cooperative learning, practice and experience, timely feedback, and authentic assessment (Chickering & Gamson, 1987; Prince & Felder, 2006). On the other hand, teaching based on passive lectures that just repeat content found in electronic resources can decrease students' attendance (Edwards & Clinton, 2019). In the GZ-CAEF teaching acts as a catalyst which moulds student motivation and engagement.

Technology: Technology has a unique place in the framework since it can complement or replace classroom learning (Bond et al., 2020; Edwards & Clinton, 2019). The flexibility and accessibility of digital learning platforms, recorded lectures, artificial intelligence tools, mobile apps, and online educational resources boost learning opportunities. When technology is used to replace, not enhance, the classroom interaction, however, students might not feel the same sense of value for being in the physical classroom (Edwards & Clinton, 2019). The framework thus views technology as a contextual factor that affects the influence of the instructional design and pedagogical integration (Davis, 1989; Venkatesh et al., 2003).

Student Well-being: Student well-being is the health of students as it relates to their involvement in higher education (Eisenberg et al., 2009). Students' capacity to be involved in classroom learning is impacted by mental health, stress, burnout, sleep quality, financial worries, employment obligations, and work-life balance (Baik et al., 2019; Stallman, 2010). Instead of attendance being an academic issue, it is acknowledged that students' health and well-being plays an important part in their capacity and motivation to attend learning activities.

Institutional Environment: The institutional context is the organizational setting that either supports or discourages attendance in class (Kuh et al., 2006; Tinto, 1993). Students' learning experiences are shaped by a range of institutional features: attendance policies, academic rules and regulations, campus infrastructure, learning resources, administrative responsiveness, student support services and institutional culture. The framework also assumes that institutions offering supportive learning environments, flexibility and student-centred learning are more likely to encourage meaningful classroom involvement than those that rely on compulsory attendance rules (Credé et al., 2010; Kuh, 2009).

Societal Influences: Factors outside the institution also affect attendance behaviour, including family expectations, peer networks, work responsibilities, cultural norms and the wider demands of the labour market (Ajzen, 1991; Astin, 1993). Generation Z students often have to balance their studies with work commitments, career development plans and personal responsibilities (Seemiller & Grace, 2016). Social influences therefore combine with individual circumstances and the institutional context to shape students' decisions about attending class in contemporary higher education.

Table 4: Components of the Generation Z Classroom Attendance Ecosystem Framework (GZ-CAEF)

Framework Dimension	Description	Expected Contribution to CAB
Student Motivation	Internal psychological drivers	Encourages attendance
Teaching Practices	Learning experience	Increases classroom value
Technology	Digital learning environment	Facilitates or substitutes attendance
Student Well-being	Physical and mental health	Supports engagement
Institutional Environment	Policies and learning support	Creates enabling conditions
Societal Influences	Family, peers, employment	Shapes behavioural decisions

4.4 Dynamic Relationships within the Ecosystem

One of the hallmarks of the GZ-CAEF is that the six dimensions are correlated and are not separate. Student Motivation can be supported by engaging Teaching Practices and can be lowered or boosted by the use of technology to support learning (Deci & Ryan, 2000; Edwards & Clinton, 2019). Students' ability to participate in classroom activities is affected by Student Well-being; the extent to which students are supported academically and personally is determined by Institutional Environment. Societal Influences impact the whole ecosystem by impacting students' priorities, expectations and behavioural decisions.

The bidirectional links indicate that designing effective classroom attendance strategies necessitates multi-level interventions, not just single-level. For instance, if there are low-quality teaching methods and/or poor student well-being, this may not have a significant impact if the attendance policy is tightened (Credé et al., 2010; Deci & Ryan, 2000). Likewise, the use of sophisticated educational technologies will not be likely to positively influence attendance without pedagogical approaches that are engaging (Edwards & Clinton, 2019; Venkatesh et al., 2003). In this

framework, higher-education classroom attendance is thus conceptualized as an emergent phenomenon of the educational ecosystem, and not the result of any one intervention.

4.5 Conceptual Propositions

Building upon the integrated theoretical foundation and thematic synthesis, the following conceptual propositions are advanced:

P1: Student motivation positively influences classroom attendance behaviour (Deci & Ryan, 2000; Eccles & Wigfield, 2002).

P2: Engaging teaching practices strengthen student motivation and increase classroom attendance (Deci & Ryan, 2000; Freeman et al., 2014).

P3: Technology influences classroom attendance behaviour through its integration with teaching practices and perceived learning value (Davis, 1989; Edwards & Clinton, 2019; Venkatesh et al., 2003).

P4: Student well-being shapes attendance behaviour by influencing students' capacity and willingness to participate in classroom learning (Eisenberg et al., 2009; Stallman, 2010).

P5: Institutional environment enhances classroom attendance by fostering supportive and student-centred educational experiences (Kuh, 2009; Tinto, 1993).

P6: Societal influences interact with personal, technological, and institutional factors to shape Generation Z classroom attendance behaviour (Ajzen, 1991; Astin, 1993).

Collectively, these propositions position classroom attendance as a multidimensional behavioural outcome emerging from the interaction of personal, pedagogical, technological, institutional, and societal influences.

5. Policy and Practice Implications

GZ-CAEF gives us a wide-angle view of classroom attendance in higher education today. It does not frame attendance as an institutional headache or a question of compliance. Instead, it treats attendance as something that emerges from several influences working on each other: how motivated students are, how staff teach, the technology in use, students' health and wellbeing, the institutional climate, and the social world around them. Seeing attendance this way matters for policy, for institutional practice, and for pedagogy.

For universities and colleges, the implication is a change of emphasis, from policing attendance to building practices that give students a reason to take part. Attendance rules can work in the short run (Credé et al., 2010). Over time, though, students are more likely to make attending a habit when they can see that being in class helps their learning. Institutions should therefore put resources into learner-centred teaching, classrooms that feel supportive, student services that are easy to reach, and flexible learning spaces that keep pace with what Generation Z students need (Kuh, 2009; Tinto, 1993).

The framework also holds ramifications for faculty and curriculum designers. In fact, teaching practices are one of the most influential factors of classroom attendance behaviour. Students' perceptions of relevance to the class can be greatly improved using interactive instruction, problem-based learning, collaborative classroom activities, experiential learning, timely feedback, and authentic assessment (Freeman et al., 2014; Prince & Felder, 2006). Pedagogical innovation in addition to subject matter knowledge should therefore be part of the Faculty Development Programmes so that the classroom sessions can offer learning experiences beyond the mere transmission of information, which is possible through Digital Resources (Biggs & Tang, 2011).

Educational Technology needs to be thoughtfully considered. The GZ-CAEF acknowledges technology as a facilitator and as a possible alternative to attending class. Digital learning platforms and artificial intelligence (AI) tools should be evaluated as supports for learning rather than assumed to be direct substitutes for in-person learning; their specific effects on attendance require further empirical study. Rather, these technologies should be used wisely to support classroom teaching, enhance student engagement, and achieve blended learning, where flexibility of digital learning is complemented by the co-creative power of face-to-face learning (Bond et al., 2021; Edwards & Clinton, 2019).

Student well-being is another strong theme in the framework, since how students are coping often decides whether they come to class at all. Universities should put more into counselling, mental health services, academic advising, and general student support, so that students have help with stress, anxiety, balancing paid work and study, and the other personal strains they carry (Baik et al., 2019; Eisenberg et al., 2009). Support like this could lift attendance, and it should also help students succeed and stay engaged in their learning.

For policy, GZ-CAEF points toward joined-up educational governance and away from isolated, one-time fixes. Administrative rules cannot secure regular attendance on their own (Credé et al., 2010). Leaders and policymakers, teaching staff, student support teams, and digital learning units all need to work in coordination. A systems perspective lets institutions deal with the many influences on attendance at once instead of leaning on a single intervention.

The framework also supports decisions grounded in evidence. It gives policymakers, institutional leaders, and practitioners in the classroom a way of thinking about how the different dimensions of attendance behaviour overlap and affect one another. This ecological view can help higher education institutions build strategies that are more responsive to students, more effective, and better suited to a digital, learner-centred environment.

Table 5: Practical Implications of the GZ-CAEF	
Stakeholder	**Recommended Actions**
Universities	Flexible learning ecosystems
Faculty	Active learning pedagogy
Students	Self-regulated learning
Policymakers	Student-centred higher education policies
Parents	Support academic engagement
Industry	Strengthen academia–industry collaboration

6. Future Research Directions

The Generation Z Classroom Attendance Ecosystem Framework (GZ-CAEF) offers a way to think about why students turn up to class. It sees attendance as a behaviour with many dimensions, shaped jointly by psychological, pedagogical, technological, institutional, and societal factors. The framework pulls together findings from earlier studies into a single, connected account. How far it proves useful, though, will depend on further empirical testing and theoretical development in a range of educational settings.

First, the next studies should be conducted to validate the proposed framework in an empirical way. Relationships among the six dimensions of the GZ-CAEF can be investigated with quantitative studies, such as structural equation modelling, mediation analysis or multilevel modelling. These investigations would allow an evaluation of the relative contribution of the different dimensions in relation to Classroom Attendance Behaviour (CAB) and the ability of the overall framework to explain the behaviour.

Secondly, researchers can examine how well the framework can be used in other institutional and disciplinary settings. Attendance behaviour can be different among public and private universities, professional and non-professional programmes, between online and face-to-face learning settings, as well as between undergraduate and postgraduate students. Comparative studies would help to enhance the generality of the framework and help to develop a greater understanding of the differences in context.

Third, future studies can incorporate cross-cultural and international views to explore the impact of educational systems, cultural values, institutional practices and societal expectations on classroom attendance practices among the Generation Z students (Kearney et al., 2026). Comparative research across countries would also give an insight into the extent of adaption of GZ-CAEF outside the country context and would add to the existing literature on student engagement in higher education.

Lastly, the framework can be expanded to include new developments that are still influencing higher education. In the next few years, students' attendance habits will likely be shaped by AI-enhanced learning, blended learning, learning analytics, immersive technologies, personalised learning spaces, and changing expectations of the workforce (Alruthaya et al., 2021). If these new dimensions could be incorporated researchers may be able to develop a framework that adapts to the changing landscape of educational practice and student learning behaviour.

The GZ-CAEF offers a clear theoretical framework that can serve as a basis for further theoretical development, empirical testing, and interdisciplinary studies. Future use and development of this intervention could improve the understanding of Classroom Attendance Behaviour and contribute to evidence-based approaches to improve student engagement and learning in higher education.

7. Conclusion

Classroom attendance in higher education is shifting quickly, as colleges and universities respond to what Generation Z students need and expect from their learning. Technology is advancing, course formats are becoming more flexible, and students' lives are more varied than before, so attendance can no longer be read as simple compliance with institutional rules. It is better understood as a layered behaviour that psychological, pedagogical, technological, institutional, and social influences shape together. Seeing how these influences work on one another is a necessary step for anyone aiming to strengthen student engagement and improve learning outcomes.

To this end, this paper aimed to synthesize the literature in relation to this challenge in a thematic way, and to propose the Generation Z Classroom Attendance Ecosystem Framework (GZ-CAEF). The framework breaks down Classroom Attendance Behaviour (CAB) into six interdependent components: Student Motivation, Teaching Practices, Technology, Student Well-being, Institutional Environment and Societal Influences. The incorporation of these dimensions under a holistic framework of the ecosystem allows a move from the fragmented explanations and provide a more global vision of the factors influencing the attendance behaviour of the learners of the Generation Z.

This paper is more of a conceptual contribution than an empirical one. It contributes to the literature in a number of ways by developing an integrated framework that captures the classroom attendance

phenomenon as a dynamic process that arises from complex interactions between various aspects of the HE context. The GZ-CAEF differs from traditional attendance research that centers on individual factors or direct linkages, and offers a systems-focused perspective to inform future theoretical, empirical and evidence-based educational practices. The framework expands the concept of 'physical attendance' to one of meaningful involvement in today's Higher Education contexts.

The framework has practical as well as theoretical value for universities, faculty members, academic leaders and policy makers. It makes the point that lasting improvement in classroom attendance cannot depend on compulsory attendance rules alone. Institutions also need to design learning experiences that engage students, support their well-being and make appropriate use of educational technologies. They need positive institutional cultures that encourage participation and active learning as well.

As higher education changes, understanding Classroom Attendance Behaviour (CAB) matters more for the health of the education system, for student participation and for graduate preparedness. The Generation Z Classroom Attendance Ecosystem Framework (GZ-CAEF) gives this effort a general structure, offering a holistic lens through which attendance behaviour can be examined and improved. The framework is expected to prompt new research and to support more responsive, learner-centred models of higher education in the digital age.

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