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RESEARCH ARTICLE

Teaching strategies and activities across all disciplines that appeal to Gen-Z learners

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ABSTRACT

Generation Z (Gen-Z), born between 1997 and 2012, is a cohort marked by their deep immersion in digital technology and the internet from a young age, often referred to as "digital natives." Growing up with smartphones, social media, and constant access to information, they are highly tech-savvy and accustomed to navigating a world where communication and digital tools are ubiquitous. This study explored the preferred teaching strategies and activities of Gen-Z college students in relation to studying and classroom interaction. College students (n=15) from Central Visayas, Philippines were purposively sampled to be interviewed about their experiences and perceptions of different teaching strategies. The findings reveal that Gen-Z learners prefer teaching strategies and activities that emphasize collaboration, interactive learning, and gamification. Students favored group discussions, project-based tasks, and community events, which encourage teamwork and provide diverse perspectives. The integration of technology, such as Google Classroom, online quizzes, and social media platforms like Instagram and TikTok, was also highly valued for creating engaging and relatable learning experiences. Gamified elements, such as leveling-up systems and team competitions, were appreciated for motivating learners and enhancing participation. These strategies, focused on collaboration, technology use, and interactive activities, align with the preferences of Gen-Z learners, encouraging a dynamic and engaging learning environment. Teachers should prioritize the integration of peer feedback, discussions, and competitive challenges into their instructional strategies to not only motivate students but also enhance their overall learning experiences. Encouraging students to engage in discussions—whether in small groups or as a whole class—creates a platform for dialogue, which helps students articulate their ideas, develop critical thinking skills, and gain exposure to diverse viewpoints. These discussions also encouraged students to actively participate in the learning process, making the content more meaningful and interactive.

Keywords: Gen-Z learners; teaching strategies; teaching activities; higher education

1. Introduction

Generation Z, born between 1997 and 2012,[1,2] is a generation characterized by their digital fluency[3]. Adapting teaching strategies to engage these learners requires an understanding of their specific needs, which differ significantly from previous generations[4]. It indicates that Gen-Z students thrive in environments that

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leverage technology, utilize interactive learning methods, and foster collaboration among peers. As digital natives, Gen-Z students often prefer learning through engaging, hands-on experiences rather than traditional lectures and text-heavy resources[5]. By implementing these tailored strategies, educators can create more effective learning environments that not only capture the interest of Gen-Z but also prepare them for success in an increasingly complex world.

As *Zoomers*, this generation is reshaping education with their unique characteristics and expectations. Teachers play a critical role in adapting to these changes by employing innovative strategies that enhance educational quality. Gen-Z students are often described as skeptical and practical, seeking education that they can apply in real-world contexts and valuing the outcomes of their degrees[6]. While technology is integral to their learning, it must be complemented by opportunities for personal growth and meaningful engagement. Educators need to identify Gen-Z's preferred learning methods and continuously redesign learning environments and resources to meet their needs[7].

In higher education, Gen Z constitutes the largest group of new enrollees, bringing with them an unprecedented pace of change primarily driven by technology. Gen Z is disrupting decades-long practices in our education system, forcing colleges and universities to adapt at a rapid pace or become irrelevant[8]. One effective strategy for engaging Gen-Z students is to utilize multimedia resources, such as videos and interactive whiteboards, which help maintain their attention and facilitate deeper understanding. Many Gen-Z students engage with multiple devices daily, which conditions them to expect quick rewards and active participation in the learning process[9].

Motivating students is a significant challenge in higher education. According to numerous reports, students' passion for learning appears to fade as they become older[10]. This is just due to the fact that learning can occasionally become more of a job than a fun activity. As Savellon et al[11] argues, there is a growing argument that the most powerful, relevant learning for today's students occurs when they connect with the rapidly changing world outside of school walls. This may be one of the reasons why so many students leave school before graduating. Yee & Yoon[12] emphasized only a small percentage of students are truly mentally present in the classroom because of their negative attitudes toward learning. To counter this trend, educators must adapt their teaching methodologies to meet the unique preferences of Generation Z, who demonstrate distinct learning characteristics compared to previous generations.

To keep students engaged, it is essential to incorporate technology into the learning process in ways that resonate with their experiences. For example, using multimedia resources such as videos, interactive tools, and collaborative online platforms can stimulate their interest and make learning more dynamic. This generation thrives in environments where they can actively participate and see the immediate impact of their work, so traditional passive learning methods may not be as effective. As such, the study's focus on alternative, technology-driven activities is particularly relevant for creating engaging, motivating educational experiences that cater to the unique characteristics of Gen-Z students, particularly in the fields of science and mathematics.

2. Literature review

Unlike previous generations, Gen-Z have grown up with technology integrated into their daily lives. As such, it is crucial for educators to adapt their teaching methods to meet the evolving needs of these learners. According to Seemiller and Grace[13], Gen-Z views themselves as open-minded, responsible, and innovative. However, they often prefer independent work and can struggle with creativity in collaborative settings.

Research highlights the importance of teacher preparation programs that emphasize understanding diverse teaching methodologies, metacognition, and the need for teachers to recognize how learning experiences may

differ from their own[14]. Incorporating technology is essential for engaging Gen-Z students, who respond positively to multimedia resources such as videos, interactive apps, and gamified assessments. Tools like Kahoot can effectively enhance engagement[15].

Gen-Z and their preference for flexible teaching methods reflects their tech-savvy nature. The phenomenon of technological migration illustrates how this generation's familiarity with digital tools reshapes educational environments[16]. For example, platforms that blend real and virtual experiences, like Pokémon Go, demonstrate the increasing integration of technology in everyday learning[17].

Gen-Z values collaborative learning, finding joy in peer interactions that enhance problem-solving and idea-sharing. Activities such as group projects and "speed dating" discussions not only promote social interaction but also help develop essential communication and critical thinking skills[18]. However, traditional models like MOOCs and e-learning are insufficient alone to address issues like dropout rates and student motivation. Gamifying courses can significantly impact learning outcomes and engagement[19,20].

Project-based learning and hands-on workshops enable Gen-Z students to apply their knowledge actively. They thrive in environments that emphasize "learning by doing," utilizing experiential learning tools like simulations and lab experiments[21,22]. Quick and constructive feedback through formative assessments—such as brief quizzes—helps maintain their interest and guide their learning strategies[23].

Collaborative projects and peer-to-peer learning are essential strategies that foster communication skills and a sense of community among students[24]. Activities such as group discussions, team-based projects, and structured interactions can enhance engagement, while personalized learning experiences empower students by aligning with their strengths and interests. Additionally, the integration of adaptive learning technologies and project-based learning can cater to the diverse learning styles within this generation[25]. By incorporating these strategies across various disciplines, this study aims to equip educators with the tools necessary to create dynamic and relevant learning environments that engage Gen-Z students and support their academic and personal success. To engage Gen-Z effectively, educators must leverage technology, encourage collaboration, and provide individualized learning experiences. By having active participation and ensuring prompt feedback, teachers can create dynamic learning environments that resonate with this generation's unique characteristics[26].

As college students prepare to enter higher education, colleges and universities are confronted with substantial budget reductions and state mandates to enhance fiscal efficiency and improve graduation rates[27]. This has led to a stronger focus on refining strategies for both attracting new students and retaining those currently enrolled. Cickovska[28] explored how to understand and engage the new generation of students in higher education by aligning with their learning preferences. It presents survey results from educators at the Faculty of Tourism and Hospitality in Ohrid, North Macedonia, highlighting a mismatch between students' behavioral traits and educators' expectations. The paper emphasized the need for educators to adapt to the unique characteristics of Gen Z to improve communication and teaching methods, offering guidance on student-centered approaches, particularly for those in tourism studies. Institutions need to assess each stage of the process—input, throughputs, and outcomes— to better understand how to draw in students and equip them with the skills needed to meet the expectations of employers.

3. Methods

3.1. Research design

This study employed an exploratory design to understand the preferences and engagement of Generation Z learners with various strategies and activities[29]. Qualitative research serves as a rigorous approach for the in-depth examination of perspectives and conceptualizations pertinent to a specific subject of inquiry[30].

Exploratory research addresses questions that emerge from observing phenomena, which involves systematic and well-planned activities designed to uncover general patterns and provide descriptive insights into social or psychological phenomena[31, 29, 32, 33]. This type of research is particularly suited for studying areas that are not well understood, allowing for the generation of new knowledge and hypotheses based on its findings[34,35]. A qualitative exploratory design further enhances this process by enabling researchers to describe topics with limited prior literature and offering participants a platform to actively contribute to the exploration and understanding of the phenomenon[36].

3.2. Participants and sampling

Exploratory research designs typically do not require large sample sizes[37]. Instead, they often focus on smaller, targeted groups to enable a detailed examination of key variables and relationships[38,39]. The flexibility in participant numbers allows researchers to select individuals who can directly contribute to answering the research questions[39]. Accordingly, this study employed a small sample size, consisting of 15 purposively selected Gen-Z college students from Central Visayas, Philippines, to ensure a focused and in-depth exploration of the research questions. Purposive sampling, a non-probability technique, involves intentionally choosing participants based on specific attributes or expertise relevant to the study[40]. In selecting Gen-Z college students, an online purposive sampling method[41,42] was conducted. Open-ended questions were asked among Gen-Z college students from a university in Southern Philippines. The online sampling selected participants based on three major sampling criteria: (1) they were enrolled in college-level courses during the Academic Year 2024–2025, (2) they were exposed to teaching strategies and classroom activities, including traditional, collaborative, and technology-integrated approaches, and (3) they demonstrated reflective and analytical skills, based on their initial responses. College students responded to basic questions regarding their experience in different teaching strategies designed by their teachers. This approach allows researchers to identify individuals with the necessary knowledge or experience to provide valuable insights[43,44]. **Table 1** presents the summary of participants' demographic profile from online purposive sampling. The table showed students' course (education, computer science, statistics, information technology, psychology), their GPA ($\bar{x}$ *=1.76; sd=0.091*), age ($\bar{x}$*=20.867; sd=1.51*), and sex.

Table 1. Summary of participants' demographic profile.

Participant Name	Course	GPA	Age	Sex
John	Education	1.75	21	Male
Maria	BS Statistics	1.8	22	Female
Luis	BS Computer Science	1.65	20	Male
Ana	BS Information Technology	1.7	19	Female
Peter	BS Psychology	1.85	23	Male
Julia	Education	1.6	18	Female
Mark	BS Statistics	1.75	22	Male
Emma	BS Computer Science	1.9	20	Female
Ricky	BS Information Technology	1.8	21	Male
Sarah	BS Psychology	1.65	23	Female
Kevin	Education	1.7	19	Male
Laura	BS Statistics	1.75	22	Female
Henry	BS Computer Science	1.85	21	Male

Participant Name	Course	GPA	Age	Sex
Rachel	BS Information Technology	1.75	20	Female
Alex	BS Psychology	1.9	22	Male

Table 1. (*Continued*)

3.3. Instruments

A semi-structured interview guide was developed in this study to elicit the responses from the participants. Interviews, as a qualitative data-gathering method, allow researchers to acquire knowledge directly from individuals, providing a naturalistic approach to understanding phenomena[45,46]. To achieve this, the interview guide must consist of carefully formulated, clear, and unbiased questions that encourage participants to provide detailed and meaningful responses[47]. An interview guide serves as a roadmap, ensuring that key topics and issues are thoroughly explored while maintaining consistency across interviews[46]. According to Hoyle et al.[48], effective questions aim to elicit in-depth answers while minimizing potential biases stemming from social desirability, conformity, or lack of engagement. In this study, a semi-structured interview guide was employed to balance structure and flexibility. This approach promotes dynamic interaction between the interviewer and the participant, allowing the researcher to adapt the flow of the conversation, probe further into relevant topics, or clarify ambiguous responses as needed[49-51]. **Table 2** presents the interview guide questions that were asked during one-on-one interview.

Table 2. Interview guide questions.

Objectives	Questions
To determine effective teaching strategies that engage Gen-Z learners across various disciplines.	1. What teaching strategies have you experienced that you found most effective in engaging you as a Gen-Z learner? Can you provide specific examples? 2. Can you provide examples of specific activities or approaches that have successfully captured your interest as a Gen-Z student? Describe each situation. 3. How do teachers adapt their teaching strategies to accommodate your unique characteristics and preferences as a Gen-Z learner?
To identify the activities that effectively engage Gen-Z learners and enhance their overall learning experience.	4. What types of activities have you found to be most effective in engaging you and your peers as Gen-Z learners, and what makes them successful? 5. How do you leverage technology and digital platforms in your activities to appeal to you and your peers as Gen-Z students? 6. What feedback or insights do you have regarding the impact of these activities on your learning experience and that of your peers? Please enumerate and describe your observations.

3.4. Data gathering procedure

Interviews are an effective way to explore individual experiences, as they allow participants to articulate their stories and derive meaning from their lived realities[52,53]. This method is particularly valuable in phenomenological research, which seeks to understand the personal experiences of individuals rather than group processes or cultural dynamics[52,54]. Conducing effective interviews begins with identifying research objectives, selecting appropriate participants, and ensuring that participants are informed about the study's purpose, confidentiality measures, and data use[55]. Confidentiality is crucial, with participants assured that their identities will remain protected and that they may withdraw from the study at any time without consequences. Providing a clear and simple consent process helps address participants' concerns and ensure trust. Developing a well-structured interview guide is essential for facilitating focused yet flexible discussions. This guide should use clear, jargon-free language to ensure participants fully understand the questions and feel comfortable responding. Open-ended questions, supplemented by follow-up prompts, allow participants to reflect deeply on their experiences, encouraging detailed and authentic responses[56,51]. Simplifying terms and adapting to participants' preferred language or dialect further enhances communication and ensures

inclusivity[57]. During the interview, creating a relaxed and supportive environment helps participants feel at ease and confident in sharing their perspectives. The interview process should feel natural and conversational while remaining organized and goal-oriented[58,59]. Thorough background research conducted beforehand enables the researcher to identify relevant themes and guide the conversation effectively.

3.5. Data analysis

Reflexive thematic analysis with an inductive approach was utilized to analyze narrative data from one-on-one interviews in this study. Thematic analysis is a widely used method that helps identify, organize, and interpret patterns or themes within qualitative data[60]. Its flexibility allows researchers to engage deeply with the data and adapt their analysis as new themes emerge[61]. Reflexive thematic analysis, in particular, emphasizes the role of the researcher's subjectivity in shaping the final interpretation, enabling them to actively interact with the data[62,63]. The inductive approach used in this study involves deriving codes and themes directly from the data, rather than imposing preconceived theories or hypotheses[60]. This bottom-up process ensures that the analysis reflects the participants' actual experiences and perspectives, which is crucial for exploratory research. Reflexive thematic analysis, with its iterative and flexible nature, allows researchers to revisit earlier phases of analysis as new insights emerge, refining the understanding of the data[64]. **Figure 1** presents the six phases of reflexive thematic analysis with the activities involved in analyzing the narrative data.

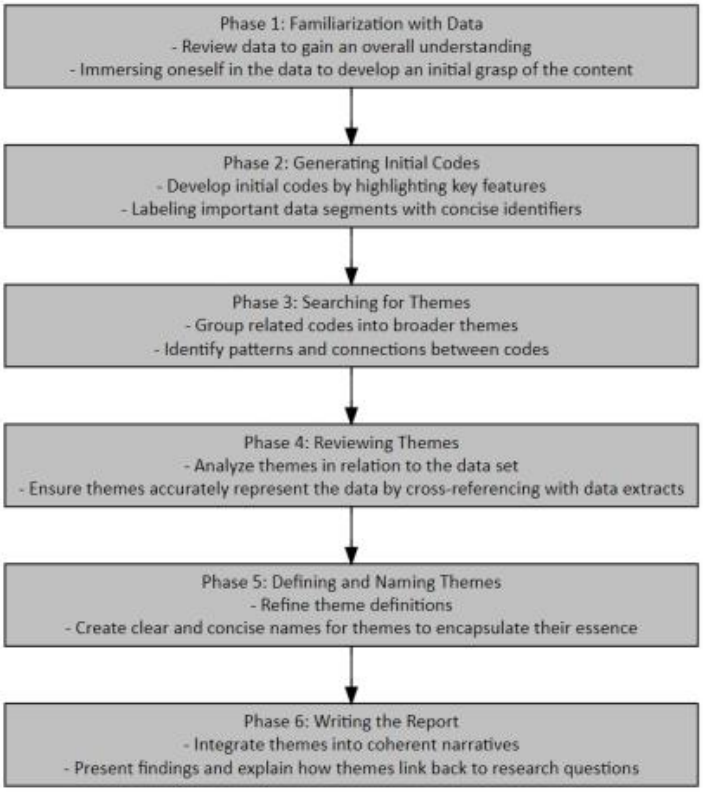

Figure 1. Workflow of six-phase reflexive thematic analysis.

4. Results

Objective 1: To determine effective teaching strategies that engage Gen-Z learners across various disciplines.

The findings highlighted effective teaching strategies that engage Gen-Z learners across various disciplines, focusing on their preferences and learning behaviors. A central theme that emerged was *collaboration,* with students expressing how working with peers fosters understanding and provides opportunities to learn from diverse perspectives. Activities like *group discussions, project-based learning,* and *community events* were particularly valued for promoting interaction and collective problem-solving.

Another key theme was *interactive learning,* where the integration of technology played a pivotal role in engagement. Students emphasized the importance of *online platforms* such as Google Classroom and *interactive tools* like online quizzes and digital content creation, which cater to their tech-savvy nature and preference for personalized, relatable learning experiences. They also appreciated teachers leveraging *social media platforms,* such as Instagram and TikTok, to present lessons in a more accessible and informal manner, fostering a deeper connection to the material.

Lastly, *gamification* stood out as a creative approach to motivate learners. Strategies like *leveling-up systems* and *team-based games* encouraged participation and provided a sense of achievement, reinforcing both enjoyment and mastery in learning tasks.

Theme 1: Collaboration

Collaboration emerged as a significant factor in enhancing student engagement and understanding. Gen-Z learners expressed a strong preference for interactive and team-based approaches, highlighting the importance of *working together with peers* to deepen comprehension. They appreciated how *group discussions foster diverse perspectives,* allowing them to learn not just from the material but also from the experiences and ideas of their classmates.

> "Collaborating with classmates helps me understand the material better. Group discussions allow us to share different perspectives, and I learn a lot from that."

Further, students emphasized the value of *active participation in group activities* over passive learning methods, such as lectures, which they found less engaging. Collaborative settings like *project-based tasks* and *shared responsibilities in meaningful activities,* such as planning a charity event, provided opportunities for *bonding and mutual support.* These experiences allowed students to combine their unique strengths and ideas, resulting in outcomes that were both educational and personally fulfilling.

> "I really prefer classes where we can actively participate. Lectures can feel boring, but when we work on projects or do group activities, I'm way more interested."

> "Planning a charity event together was a great way to bond. We all had different ideas, but when we combined them, we created something meaningful for our community."

Collaboration is not only a preferred teaching strategy but also a catalyst for creating an enriching and interactive learning environment. It enables students to connect, contribute, and grow collectively, making the learning process more dynamic and impactful.

Theme 2: Interactive Learning

Interactive learning emphasizes the role of technology and active engagement in enhancing the educational experience for Gen-Z learners. Students highlighted the value of *online applications and platforms,* which align with their tech-savvy generation and make learning more accessible and efficient. Tools such as *Google Classroom simplify task management* by centralizing assignments and resources, reducing the need to navigate through multiple channels.

Creativity emerged as a key element in interactive learning, with students expressing enthusiasm for *online quizzes and projects* that allow them to *create digital content.* These activities enable learners to not only engage with the material but also to express themselves in innovative ways that resonate with their interests.

> "Making use of online applications and platforms can be easily adaptable to the students for it is currently aligned with the current contribution of technology to their generation."

> "Using platforms like Google Classroom makes it so easy to access assignments and resources. Everything is in one place, and I don't have to dig through emails."

"I love online quizzes and projects; it allows me to use my creativity by creating digital contents."

Social media platforms, such as *Instagram and TikTok,* were also noted as effective tools for delivering educational content. Their informal and relatable nature enhances student engagement and bridges the gap between academic and personal interests. Additionally, students appreciated opportunities for *digital content creation,* which allowed them to *actively participate* and reflect their unique learning preferences.

> "Teachers who use Instagram or TikTok to share content or assignments keep me more engaged. It feels relatable and less formal."

> "Content creation is one of my interests. With this, I can actively participate because it allows me to express myself digitally, and it reflects my preference for learning."

Moreover, interactive learning encourages *collaboration, critical thinking, and problem-solving skills* while simultaneously enhancing *motivation and digital literacy.* By integrating technology into lessons, educators create a dynamic learning environment that prioritizes personalization and adaptability, enabling students to connect meaningfully with both the content and their peers.

> "I get so much more out of classes that are interactive. When we can participate and share our ideas, it feels like we're actually learning."

> "With tech integration, it enhances my engagement, motivation, and personalized learning that fosters collaboration, critical thinking, and problem-solving skills while improving my digital literacy."

Theme 3: Gamification

Gamification highlights the effectiveness of integrating game-based elements into educational practices to engage and motivate learners. Students expressed enthusiasm for *interactive ball games* where they actively participate by passing the ball in response to prompts, making the learning process enjoyable and dynamic. These activities foster a sense of *engagement and teamwork* while reinforcing lessons in a playful manner.

> "Students like me enjoy ball games where we pass the ball to the next person until the teacher, or the reporter says stop."

The use of *leveling-up systems* in classrooms, where students can *earn badges for mastering topics,* was highly appreciated. This approach provides a *sense of achievement and progress,* motivating learners to strive for excellence. By visually representing their accomplishments, such systems create a *reward-driven environment* that encourages consistent effort and reinforces positive learning behaviors.

> "Some of our teachers have a leveling-up system where we can earn badges for mastering topics. It feels rewarding to see my progress, and it motivates me to keep improving."

In essence, *gamification* transforms traditional classroom dynamics by making learning *fun, interactive, and goal-oriented.* It not only sustains students' interest but also instills a sense of *purpose and motivation* to actively engage in the educational process.

Objective 2: To identify the activities that effectively engage Gen-Z learners and enhance their overall learning experience.

This study aimed to explore the activities that effectively engage Gen-Z learners and enhance their overall learning experience. The findings revealed that Gen-Z learners thrive when exposed to educational practices that integrate *real-world relevance,* promote *interactive and simplified content,* and encourage *peer engagement and competition.* Activities emphasizing *application* resonated strongly with students, as they appreciated lessons that connect to *current events* or *real-life situations.* These strategies not only heightened their interest but also empowered *critical thinking* and demonstrated the *practical value* of their learning. Simplified approaches, such as delivering *bite-sized content* or leveraging *educational social media pages,* made studying more manageable and aligned with the fast-paced preferences of Gen-Z learners. Engagement also flourished through opportunities for *peer feedback* and *collaborative discussions.* Students valued sharing diverse perspectives and the personal growth that came from *teaching classmates.* The element of a *competitive atmosphere* further enriched the learning environment. Activities like *team competitions* and *trivia challenges* motivated students to perform at their best while encouraging teamwork. Finally, technology played a crucial role, with platforms such as *Kahoot!* and other *interactive apps* creating a dynamic and engaging learning space. By gamifying lessons and providing instant feedback, these tools helped sustain interest and encourage active participation. These findings emphasize the importance of aligning educational practices with the preferences and needs of Gen-Z learners to enhance their overall learning experience.

Theme 1: Application

The theme of *application* underscores the significance of connecting learning to real-world contexts and experiences, which resonates deeply with Gen-Z learners. Students expressed a heightened sense of engagement when lessons are linked to *current events or societal issues,* allowing them to see the *relevance* of their education in understanding and addressing real-world challenges. This approach encourages them to think critically and recognize the value of their learning beyond theoretical boundaries.

> "I love it when our teachers connect lessons to current events or issues. It helps me see the relevance and think critically about what's happening around us."

Further, when teachers emphasize how concepts are *applied in real life,* students feel more invested in the subject matter. The shift from abstract to practical learning fosters a deeper emotional connection and motivates learners by demonstrating the *tangible impact* of their education. *Real-world projects* were identified as transformative learning experiences. By participating in these projects, students gained a *profound understanding of concepts* that transcended rote memorization or textbook study. These projects provided an opportunity to integrate knowledge into practical applications, making learning more meaningful and enduring.

> "When teachers show how what we're learning applies to real life, it makes me care more about the subject. It feels like it's not just textbook stuff, and I can feel the impact of what I have learned from the lesson."

> "Doing real-world projects helped me understand concepts much more deeply than just reading from textbooks. It made learning feel relevant."

The findings highlighted that Gen-Z learners benefit immensely from educational strategies that bridge the gap between academic content and real-life applicability, promoting critical thinking, engagement, and a sense of purpose in their studies.

Theme 2: Simplification

Simplification highlights the importance of breaking down complex content into more digestible, manageable segments. Gen-Z learners appreciate when teachers present material in *bite-sized content* formats, which help maintain their attention and prevent feelings of boredom. By structuring lessons in smaller, focused segments, students are able to absorb and retain information more effectively without feeling overwhelmed. This approach aligns with the learners' preference for more *concise, clear, and engaging* material, which suits their fast-paced, digital-centric lifestyles.

> "Our teachers always use bite-sized content during classes, so we don't get bored."

Similarly, the widespread use of *digital platforms* like Instagram and TikTok for educational purposes underscores the preference for quick, easily accessible learning resources. Students favor *short, practical tips* and *interesting facts* that can be consumed rapidly, allowing them to fit learning into their busy schedules without the pressure of long, exhaustive study sessions. This approach not only makes learning more *accessible* but also aligns with the visual and interactive methods that resonate with digital natives.

> "I follow educational pages on Instagram and TikTok. They share quick tips and interesting facts that help me study."

Theme 3: Feedback

Feedback underscores the critical role that peer interaction plays in enhancing the learning experience for Gen-Z learners. This generation values the opportunity to receive *peer feedback*, as it exposes them to *different perspectives* and allows for a deeper understanding of the material. The act of sharing knowledge within a peer group not only promotes *collaborative learning* but also encourages *critical thinking*, as students are able to evaluate and discuss ideas from multiple angles.

> "Having opportunities for peer feedback is super helpful. It's nice to hear different perspectives and ideas from others too; knowledge is unlimited."

The process of *teaching peers* is highlighted as an important component of the learning experience. When students take on the role of a teacher, it allows them to refine their understanding of a topic, as well as *engage actively* with the material. This active participation creates a dynamic environment where students can clarify their own thoughts and reinforce their learning. The feedback they receive from peers in return adds further value to the learning process, helping them to reflect on their knowledge and adjust their thinking accordingly.

> "I loved teaching my classmates about a topic I was passionate about. It was nerve-wracking at first, but it felt great to see them engage and ask questions."

> "I feel like I learn better when I can discuss ideas and get different perspectives."

The overall emphasis on *discussion* and *perspective sharing* suggests that feedback, whether from peers or through interactive teaching, is a powerful tool in motivating Gen-Z learners. It encourages a more *participatory and reflective* approach to learning, where students not only absorb information but also contribute to the learning community by providing and receiving insights.

Theme 4: Competitive Atmosphere

Competitive atmosphere highlights how Gen-Z learners are motivated by elements of competition in their educational experiences. Engaging in *team-based competition* taps into students' desire to challenge themselves and excel within a group context. This competitive spirit fosters an environment where students are driven not only by personal achievement but also by the success of their peers.

The *enjoyment of challenges* is evident in the way students respond to competitive activities like *trivia nights* or *group projects with a twist*. These activities combine the thrill of competition with the collaborative aspect of teamwork, making the learning experience both *engaging* and *dynamic*. The use of challenges as a learning tool appears to enhance students' enthusiasm and commitment to their tasks, as they thrive in environments that push them to perform at their best while fostering a sense of camaraderie.

> "Competing in teams brings out our competitive side."
>
> "We enjoy challenges that let us work together, like trivia nights or group projects with a twist."

Having competition into their learning, students feel a heightened sense of motivation and *engagement*, as these activities offer a tangible way to measure success and progress. The theme reveals that creating a *competitive atmosphere* can not only deepen students' interest in the subject matter but also encourage them to push their limits in pursuit of excellence.

Theme 5: Technology Engagement

Technology engagement emphasizes how the integration of technology in the classroom enhances students' learning experiences by making them more *interactive* and *engaging*. The use of digital platforms such as *Kahoot!* transforms traditional quizzes into *games*, turning what might otherwise be a routine task into an exciting, competitive experience. This aspect of *gamification* not only increases motivation but also provides students with *instant feedback*, allowing them to track their progress in real time and adjust their learning strategies accordingly.

The use of *apps and online resources* plays a significant role in maintaining students' interest in lessons. Technology provides students with tools that support diverse learning styles, making lessons feel more relevant and adaptable to their needs. It encourages a more *interactive* approach to learning, where students actively engage with content rather than passively consuming information. The appreciation for *interactive learning* through technology suggests that students are drawn to educational experiences that incorporate digital tools, which help them stay engaged and foster a deeper connection to the material.

> "Using platforms like Kahoot! makes quizzes feel like a game. We enjoy the competition and instant feedback."
>
> "Using apps and online resources kept me more interested in the lessons. I appreciate how tech makes learning more interactive."

5. Discussion

Objective 1. To determine effective teaching strategies that engage Gen-Z learners across various disciplines.

The findings from this research highlight the significance of interactive learning strategies tailored to Gen-Z learners. A predominant theme emerging from the data is the preference for group discussions and collaborative activities, which not only enhance engagement but also foster a sense of community among

students. This resonates with Miranda[4], who notes that traditional teaching methods, such as lectures and standard assessments, often fail to engage students meaningfully. By contrasting this with the dynamic learning environments preferred by Gen-Z, the research underscores the necessity for educators to adopt more participatory approaches that encourage active involvement.

The integration of technology emerged as a vital strategy for boosting student engagement. Participants highlighted the significance of platforms like Google Classroom, which resonate with their tech-savvy nature and create a more organized learning environment. This observation aligns with Prensky's[65] depiction of Gen-Z as "Digital Natives," who are comfortable navigating digital tools. However, Schukei[66] warns that while students adapt easily to new technologies, educators must offer clear guidance on how to use these tools effectively. This emphasizes the need to strike a balance between leveraging technology and ensuring it enhances rather than detracts from the learning experience. The transition to distance learning has further enabled high school students to become proficient in utilizing various digital resources—such as videos, e-books, and images—greatly increasing their engagement with subjects like math[67]. This adaptability highlights the critical role of incorporating technology into instructional strategies.

Moreover, the research draws attention to the importance of practical application in the learning experience. As Seemiller and Grace[13] noted, Gen-Z thrives on applying knowledge to real-world challenges. Participants expressed a preference for lessons that connect theoretical concepts to current events and societal issues, enhancing their engagement and fostering critical thinking. This connection to real-life applications not only increases their interest but also underscores the significance of their studies, as supported by Hernandez-de-Menendez et al.[10] and Mohr & Mohr[68].

The emphasis on collaborative learning further supports the need for interactive strategies. Participants noted that peer interactions significantly enhance their understanding of course material. This is consistent with Afshar et al.[9], who assert that collaborative learning encourages active participation and self-empowerment. By sharing diverse perspectives and engaging in teamwork, students not only deepen their comprehension but also develop essential social skills, preparing them for future collaborative environments.

Objective 2. To identify the activities that effectively engage Gen-Z learners and enhance their overall learning experience.

In examining the activities that engage Gen-Z learners, the findings reveal a strong preference for gamified learning experiences. Participants identified competitive elements, such as team-based challenges and quizzes, as effective motivators for engagement. This aligns with Miranda[4], who suggests that gamification enhances knowledge retention and promotes active participation. The integration of platforms like Kahoot! exemplifies how technology can transform traditional assessments into dynamic, interactive experiences that resonate with Gen-Z's preferences for instant feedback and competitive engagement. Furthermore, as noted by Espartero[67], these strategies correlate strongly with students' engagement, particularly in subjects like math, highlighting how digital tools can revolutionize traditional approaches to learning challenges.

Furthermore, collaborative projects emerged as a powerful tool for fostering creativity and teamwork. Participants enjoyed the process of working together on meaningful tasks, such as planning charity events. This finding aligns with Seemiller and Megan's[69] recommendation to provide community engagement opportunities. The enjoyment expressed by participants in these collaborative efforts underscores the value of facilitating peer teaching and hands-on activities, allowing students to connect their academic knowledge with real-world applications.

The preference for flexible learning environments was also evident, with participants highlighting how online resources and social media platforms enhance their educational experiences. The ability to learn at their

own pace and engage with familiar technology lowers barriers to participation, as noted by Miranda[4]. This observation is consistent with research by Nicholas[70], which found that multimedia elements, such as videos and interactive platforms, significantly enhance comprehension and retention for Gen-Z learners.

Moreover, the importance of interactivity in learning experiences cannot be overstated. Participants emphasized that group work and peer discussions made the material more engaging and relevant. This echoes Afshar et al.[9], who highlight the benefits of cooperative research and exploration in small group settings. The personal connections established in the classroom also play a crucial role, as noted by Seemiller and Grace[13]. By investing time in understanding their students, educators can create supportive environments where learners feel comfortable sharing their ideas and perspectives.

Finally, technology engagement remains a vital component of effective teaching strategies for Gen-Z learners. The findings align with Hernández-de-Menéndez et al.[10], who emphasize the importance of integrating technology to create exciting and relevant learning experiences. Sackstein[71] further highlights the need for learning experiences to resonate with students, motivating them to engage deeply with their studies.

6. Conclusion

This study revealed several effective teaching strategies that engage Gen-Z learners across disciplines, with a particular emphasis on collaboration, interactive learning, and gamification. Gen-Z learners value teamwork and peer-driven activities that promote collective problem-solving and diverse perspectives. Interactive learning, facilitated by technology, was another key factor in enhancing engagement, as students favored platforms that enabled them to access material quickly, create digital content, and engage with educational tools in innovative ways. Furthermore, gamification emerged as an effective motivator, with students enjoying game-based elements such as leveling-up systems and team competitions that fostered a sense of accomplishment and camaraderie. Finally, students' learning experiences were significantly enriched by real-world applications, simplified content, and peer feedback, all of which contributed to a more engaging and meaningful educational process.

The findings of this study suggest that educators should incorporate collaborative and interactive teaching strategies to align with Gen-Z learners' preferences. Collaborative activities such as group discussions, project-based learning, and team-based competitions foster a deeper connection with the material and enhance critical thinking. Teachers are encouraged to leverage technology, using platforms like Google Classroom, social media tools such as Instagram and TikTok, and interactive apps like Kahoot! to facilitate engagement and personalize learning experiences. Incorporating gamification into lessons can also motivate students, encouraging consistent participation and reinforcing mastery of concepts. Teachers should emphasize real-world applications of academic content and present lessons in bite-sized, digestible formats to maintain the attention and interest of Gen-Z learners. Incorporating opportunities for peer feedback and reflection can deepen understanding and enhance students' sense of ownership over their learning.

While this study provides valuable insights into effective teaching strategies for engaging Gen-Z learners, there are several limitations to consider. First, the study primarily relied on self-reported data from students, which may be subject to biases such as social desirability or selective memory. The sample size and demographic scope were also limited to certain educational contexts, meaning the findings may not fully represent the diverse preferences of Gen-Z learners across different regions, disciplines, or educational settings. Somehow, the study focused on the perceptions of students, without incorporating the perspectives of educators, which could provide a more comprehensive understanding of the challenges and opportunities involved in implementing these strategies. Future research could expand the sample size, include multiple

perspectives, and explore longitudinal effects to offer a more nuanced view of how these teaching strategies influence learning outcomes over time.

Conflict of interest

The authors declare no conflict of interest.

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