Gen Z Students Are Filling Our Online Classrooms: Do Our Teaching Methods Need a Reboot?

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Abstract. Generation Z students are described as being our first "digital natives" who have grown up typing with their thumbs on smartphones and tuning out school-based interactions that do not capture their short attention spans. As Gen Z students occupy more post-secondary rosters for web based courses, they seek instructional models that combine world-class online learning environments with in-person engagement. Based on student feedback generated on principles consistent with the aims of SoTL, this article addresses the core characteristics of Gen Z students in higher education settings and offers relevant, useful strategies for meeting their needs within an online platform.

Just when higher education professors had largely come to terms with the challenges and idiosyncrasies associated with teaching Millennials, their class rosters have mysteriously become populated with a newer classification of student for which they must now contend: Generation Z or post-Millennials. "Gen Z" includes anyone born from 1997 onward and they number about 2.47 billion people worldwide (Dimock, 2019). While some instructors may refuse to get entangled in this practice of naming and identifying specific generational cohorts, there is little contradiction that Gen Z students are indeed part of a unique group that is challenging to teach and anything but "traditional."

Add to that the proliferation of online learning, either by choice or circumstance, and instructors who teach online are being asked to engage this onslaught of unconventional students in a medium that is itself somewhat unconventional. Indeed, these Gen Z students fill more and more university rolls as new federal data report that over half of college students in the United States are taking online courses, which is a jump from the 37% recorded in fall 2019 (Smalley, 2021) and, on a worldwide scale, close to 100 million students are enrolled in web-based courses (Vlasova, 2022). This article will address the core characteristics of Gen Z students at the college and university level and offer relevant, useful strategies for meeting their needs within an online platform.

The focus on Gen Z was initiated by using the principles of Scholarship of Teaching and Learning (SoTL), based on the seminal work of Boyer (1990), to investigate the instructional practices and student outcomes in the author's College of Education as a result of the pandemic and subsequent exponential growth of web-based courses. By designing a systematic inquiry of student learning conducted by faculty, the objective was to gather classroom-level data, share that data with colleagues, and encourage collaborative reflection on our methods of teaching and how they might impact student learning. As Salvatori (2002) argued, teaching and learning are the most salient characteristics of the scholarship of teaching…unprecedented attentiveness to students' work, their cultural capital, and their learning as a litmus test for the theories that inform a teacher's approach (p. 298).

When considering these factors in total, we saw a great need to be proactive and collect data from our students in an effort to better understand their perceptions of existing practices and identify elements for potential change and progression. A questionnaire was disseminated to undergraduate students in preservice teacher training (a group comprised almost wholly of Gen Z students) through the Information Technology Advisory Committee and several interesting findings were uncovered. With 95 completions, nearly 50% of respondents either disagreed or were neutral when asked if course lessons and activities were translated well into the remote format and 60% of students expressed either disagreement or neutrality toward the notion that they felt connected to their classmates during online learning. Perhaps even more telling was the fact that almost 65% of students did not feel connected to their professors when learning online. In keeping with the work of Huber and Hutchings (2005), it was time to examine pedagogy within individual classrooms and become more cognizant of the students who are filling those classrooms.

A Look at the Literature

As reported by Salleh et al. (2017), there is very little meaningful literature on hand about Generation Z, as society is just now being seriously influenced by them. Indeed, the existing empirical literature that investigates the Gen Z learner in a fully online classroom is sporadic, yet began to expand during the pandemic, which coincided with an exponential growth in web-based instruction. When considering the style of course delivery preferred by Gen Z students, an early examination by Huss and Eastep (2013) found that students wanted content as well as audio and visual communication from faculty as opposed to merely content or simply content and audio communication. Yu (2020) administered a questionnaire to 214 participants from upper-level undergraduate communication skills courses at a public university and reported that Gen Z students demanded more control over their own learning, including flexible schedules and instant access. An online course should also accommodate their preference for more real-time interactions with teachers and peers, multimedia resources, and apps. Several students noted that taking a quiz online was more comfortable than taking it in class and it helped them effectively comprehend the subject matter.

Mellman (2020) conducted an e-Delphi study and used two panels to explore learning approaches in online academic settings and nonacademic settings (38 participants on each panel). The study considered differences between the two panels of learners and compared current literature-supported best practices to the learning approaches generated by participants on the panels. The academic panel participants reached consensus on 6 of the 56 learning approaches while the nonacademic panel participants reached consensus on 10 of the 37. The ability to choose projects and learn material by self and the importance of videos that show how to complete an assignment or project were two common themes that emerged from both groups. The authors suggested constructivist learning theories (Goldie, 2016), connectivist learning theories (Goldie, 2005), and deep learning pedagogical practices (Fullan & Langworthy, 2014) most closely align with Gen Z's preferred learning approaches.

Hernandez-Menendez et al. (2020) released a comprehensive review of educational technology as it pertains to Gen Z students and declared paying attention

to technologies alone is not sufficient. Instructors need to be familiar with the characteristics of Gen Z learners and recognize that many of the students will be *web-searchers* but not researchers. They tend to have difficulty discerning between valuable and non-valuable information. The authors stated that Gen Z students prefer to work without a fixed time or place. Institutions must devote resources to the transitioning of professors with traditional or low-tech pedagogical strategies to highly intensive ones.

Chunta et al. (2021) focused on nursing students in higher education and likewise reported Generation Z students prefer independent learning while still being socially connected to peers. Although this generation of students is comfortable with technology, their unique traits may create challenges for nurse educators teaching in online settings. Such findings are consistent with the collective literature that underscores the distinctive needs of Gen Z students and establishes the importance of recognizing those characteristics that will ultimately come to the forefront in the post-secondary classroom.

How Gen Z Uses Technology

Perhaps the most distinguishing characteristic of Gen Z students is the fact they represent our first digital natives who have grown up typing with their thumbs on smartphones, are never more than an arm's length away from a device, and have never known a world without the Internet. While such characteristics may initially sound like a perfect fit for online classes, the intent behind a Gen Z's technology usage may be quite different than that of the instructor who creates the course modules. Despite their "tech addict" reputations, digital natives may, in practice, be less digitally savvy, or competent, in many important areas than they are expected to be, and there is much variation in digital natives' use of technology. We cannot assume that because they have been using technology practically since they were born that they know how to use it proficiently, effectively, or appropriately for learning in our college courses (Twenge, 2017). Unfortunately, their factual knowledge level base remains immature with little grasp of information literacy (Cowan, 2014).

As an example, over 60% of TikTok users are comprised of Gen Z. Whereas professors complained incessantly for the past two decades about the Millennials' reliance on Google searches for any and all content inquiries, a surprising statistic now reveals that 40% of Gen Z prefers using TikTok and Instagram for searches over Google (Pogue, 2022). Aside from the obvious concern that students are turning to social media platforms for information, the stronger message for professors is that Gen Z students prioritize engaging with authentic content and want to see visual representations of something as opposed to simply reading about it.

Consider that 93% of Gen Z adults over age 18 engage YouTube regularly, and 71% of this generation watches more than three hours of online video daily. The implications for an online classroom are clear---one's Gen Z students are more likely to consume information presented to them in a visual format. They like storytelling but expect technology, not books (Viscaya-Moreno & Perez-Canaveras, 2020). For instance, a TED talk would be better received than any book or text reading on the same topic. Further, only 12% of Gen Z students indicate that they learn best by listening to traditional class lectures (Chalk.com, 2022). Inasmuch as digital users who have not lived without technology will not know how to cope with utilizing resources outside

of solely tech (Anderson & Rainie, 2018), instructors can appeal to Gen Z by creating short YouTube-style how-to and explainer microlearning videos.

When creating a microlearning video for Gen Z students, one should (1) select the topic and keep it focused on a single objective; (2) plan one's talking points and keep the video centered on those specific ideas; (3) support the talking points with visual content or demonstrate—show don't tell; (4) keep the video short by avoiding the tendency to repeat ideas with introductions and conclusions; (5) give some type of online quiz to reinforce the key ideas (Panopto.com, 2019).

Despite one's best efforts, it will, of course, be necessary to utilize text on many occasions, so it is advised that text be optimized for reading efficiency because Gen Z students will scan rapidly for key points and disregard the "filler." The text should also be perceived as applicable and practical as opposed to abstract and cerebral. When developing assignments and online activities, seek to reduce the number of actions required from a student. Prioritize what it is that one ultimately wants from the student and, as the old expression goes, cut to the chase because Gen Z students expect instantaneous, on-demand answers.

How Gen Z Perceives "Knowledge"

In a similar vein, perhaps the biggest technology-related challenge a professor faces is related to Gen Z students often having an exaggerated opinion of their "knowledge." For members of this generation, "research is less about acquiring new knowledge and more about accessing a quick answer to complete an assignment" (Seemiller & Grace, 2018, p. 203). Online instructors need to be prepared to teach students to conduct research in a way appropriate for the college level because students may mistakenly believe that technology has made them smarter, not realizing that it is the technology that knows the answers, not them. According to Coopersmith (2017), technology makes us able to do more while understanding less about what we are doing and has increased our dependence on others. Thus, professors need to help students see the difference between accessing information and actually *learning* information by guiding class members as they navigate data and ensuring that students are effectively processing and comprehending the information. They may not pay much attention to detail and might consider as valid the first information heard or located.

Frustration between professors and Gen Z students is often rooted in this debate over what constitutes "knowledge." Whereas professors may yearn for students who truly have a thirst for learning and the development of intellect, Gen Z values college mostly as a means to secure a good job (Malat, 2016). It is indeed a classic battle between rigor and relevancy. While it may be distasteful to many traditionalists, instructors need to consider the student's "practicality" perspective and motivation when designing an online course in order to cultivate a positive environment. One way to bridge the chasm is to ask more questions that require critical thinking and application (while still emphasizing pertinence to the Gen Z student) as opposed to merely facts or superficial definitions. In short, opt for experiential practice compared to traditional teaching methods. Unlike previous generations, Gen Z simply does not look to authority figures for information (Association to Advance Collegiate Schools of Business, 2022).

The Gen Z Attention Span

Another closely related issue that needs to be contemplated when designing online content is the attention span of a typical Gen Z student. These self-anointed electronic multitaskers have an attention span of 8 seconds (Williams, 2019). They will think nothing of watching a professor's PowerPoint presentation while posting messages to a social media site or chatting with a friend on WhatsApp. However, this so-called multitasking has led to an increased "inability to focus" (Seemiller & Grace, 2016, p. 181). It is important to break the information into "straight-to-the-point" chunks, whether it be a lecture or an assigned reading. Even videos need to be short. Unlike Millennials who grew up watching full length movies, Gen Z has grown up watching "quickie" video clips (Wotapka, 2017).

Utilizing Humor with Generation Z

Although Gen Z students are quick to sign up for online courses because of the convenience and mobility factors, they actually enjoy an opportunity for collaboration and interaction with classmates and professors, at least to a point. Ideally, Gen Z students are seeking instructional models that combine world-class online learning environments with in-person engagement. A survey of more than 3,000 students in the United States and Canada revealed nearly 80% of respondents said their online courses lacked the interrelationships of face-to-face classes. Seemiller et al. (2021) found that Gen Z students wanted instructors who are personable and "take the time to create relationships with them" (p. 13). A key element of teaching and engaging Gen Z students online should involve the use of humor. Unfortunately, instructors often underrate or sidestep the importance of their "digital personality." They lack a "teaching presence" that extends beyond the managerial and technical aspects of their interactions with students. Such an oversight is especially detrimental when seeking to make connections with the modern student who uses humor as a coping mechanism to confront current social issues and looming threats, both real and perceived. If one can make them chuckle, then one may get their attention.

A key element of teaching and engaging Gen Z students online should involve the use of humor. Unfortunately, instructors often underrate or sidestep the importance of their "digital personality."

A professor can begin to encourage these chuckles during the first days of a course. According to Huss (2022) using "Top Ten" lists (i.e., Ten Funniest Things about Your Physics Professor) are extremely useful for simultaneously communicating class expectations and a professor's affability. Acknowledging that one teaches a notorious "dread" course can calm the apprehension of students while suggesting the material might be enjoyable as well as useful (think "sadistics" rather than "statistics"). Introducing new topics or units through video clips, cartoons, comic strips, or even simple emojis can provide the comedic and visual "enticement" needed to pull students into the content in a humorous way. This approach is perhaps the strategy most professors can turn to who are initially uncomfortable with humor or do not consider themselves to be naturally "funny." Anyone can locate a pertinent subject-related cartoon that reinforces a class objective in a lighthearted manner. Humor can

be used with syllabi (memes, tongue-in-cheek course prerequisites, etc.), resources, and course assignments. Tests and quizzes can utilize humorous multiple-choice distractors, use of student names in questions, and even the branding of the instrument itself ("Quizeroo" versus "Exam"). Professors should seek any angle to instill self-confidence and create rapport with online students.

Mayer's (2020) personalization principle stresses the value of a conversational, rather than formal, tone with instructional multimedia. Weekly podcasts provide opportunities for adding wit to standard classroom lectures. Screen-capturing tools like ScreenPal and *Techsmith Capture* allow instructors to easily provide voice-over to PowerPoint content, images, or student work so that humor can be added to any applicable presentation. Further, newer versions of PowerPoint now have this capacity built in to the program. Sharing the "human" side of a professor's personality with anecdotes and well-chosen stories can reduce the inherent inequity of the status and power relationship with the students (Korobkin, 1988). Professors can discuss goofy mistakes they made when they were college students or brag about a recipe for making an eggplant and marshmallow smoothie. Similarly, it has been found that when self-deprecating humor is used in online courses, students have more interest and appreciation in the course (LoSchiavo & Shatz, 2005). To resonate with Gen Z students, professors need to think as entertainers do because they are competing for the student brain with an onrush of extremely compelling and arguably addictive elements. Students view humor as a sign of relatability and caring in their instructors, and this type of social emotional learning is critical for Gen Z.

Synchronous or Asynchronous?

A professor's arsenal of strategies for creating a classroom community are contingent, of course, upon whether the class is taught synchronously or asynchronously. There is obviously greater opportunity for peer-to-peer and student-professor interaction in a synchronous class session. Providing more class discussion in lieu of rambling lectures is a simple and familiar approach. Using break out rooms for test reviews and sharing ideas is another option that resonates well with Gen Z students and their desire to connect, question, and problem solve. Other options include Facebook, WhatsApp, Twitter, Snapchat, concept mapping or infographics, flipped classroom with hybrid instruction, storytelling, virtual learning environments, gaming (Kahoot!, Socrative, Jeopardy), blogs, simulations, role-playing, case study, jigsaw classroom, smartphone applications, and QR codes (Vizcaya-Moreno & Perez-Canavares, 2020).

Conrad and Donaldson (2004) recommended a scaffolded approach to developing interaction among classmates in a web-based class. A professor might begin by serving as a social negotiator and provide activities that encourage students to get to know one another while easing into the expectations of class discussion. The process continues as the instructor promotes collaboration by providing paired activities that are followed by group activities, projects, or debates. Ultimately the students can initiate their own presentations and mini-teaching opportunities with minimal intervention by the professor.

Asynchronous classes of the 24/7 variety are a bit more challenging to incorporate with meaningful student engagement, due to students accessing the course

at different times, but are still very ripe for thoughtful possibilities. It can be extremely valuable to include collaborative writing and peer review. Consider incorporating peer review activities for proposals, outlines, and drafts being assigned throughout a course. Have students work together to edit an assignment in Google Docs. Interactive collaboration and sharing tools like Voice Thread can be a welcome relief from traditional discussion boards and allow students to make comments by text, phone, or microphone while hearing or viewing the comments of classmates. On the lighter side, allowing students a digital space to socialize and share ideas can be facilitated through apps like Flip.

Adams and Wilson (2020) pointed out that most asynchronous attempts to build classroom synergy rely on students processing readings or assignments on their own and sharing those summative understandings with peers. They suggested using a collaborative annotation tool such as Perusall, NowComment, or Hypothes.is to focus on during-reading discussion, which differs, of course, from after-reading discussion in that students are actively processing the texts and the concepts while the text is being read. In this scenario, students interact dozens of times through comments and questions on each reading. Adams and Wilson found that peer-to-peer interactions outpaced the compulsory text interactions, indicating that students were indeed viewing the exercise as a community enterprise as opposed to merely something they did that was detached from their classmates. The instructor also has an opportunity to connect with students by sharing annotations or commenting directly on student annotations.

Gen Z and the Need for Independence

Having said all of that, the complexity of the Gen Z student once again comes into play because, despite the stated need for peer interactions, these students are also fiercely independent. The daily presence of YouTube has convinced Gen Z they can do, create, or fix almost anything, and this had led to an independent streak that often collides with the pervasive "work with others" mentality of Millennials. As an online instructor, one can acknowledge the "do it yourself" approach of Gen Z students by allowing student-informed learning, meaning assignments and projects can be customized and personalized. Insisting that every submitted paper looks alike and that projects follow a template will simply clash with the Gen Z orientation and lead to disharmony.

Reaching Out to Gen Z Students

Aside from the structuring of the course content and class-related interaction, it is also critical that professors find ways to connect with and motivate online students on a more personal level, inasmuch as hallway conversation and impromptu in-person small talk will not be a factor. Direct email can be used to initiate communication with students to simply ask how they are doing and whether they have any questions or concerns. A communication app like Remind allows text messages to be sent in real time to an entire class, a small group, or just a single person. A professor's LMS typically has an online recorder that can be employed for generating and sending out audio messages. Likewise, creating "pep talk" videos for the students (either individual or whole group) is another option, as well as providing regular virtual office

hours at times convenient for the student. Send an e-greeting if a student or a student's family member has been ill. Be prepared to share campus resources with students who are struggling academically or with mental health concerns. In other words, do not be a nameless, faceless instructor whose only function is to post PowerPoints and assigned readings.

It is clear that Gen Z students want their professor to be a regular presence in their online experience. They desire that professors be interactive and engaging as opposed to managerial and mechanical. 47% want to hear from their online professor several times a week and 42% want to hear from the professor daily (Huss & Eastep, 2013). A quick "beginning of the week" video in which the content and expectations for the upcoming module are covered, along with a Thursday or Friday "check in," are extremely helpful. Apps like Loom and Mote are excellent for such purposes. Gen Z students also desire a quick response from their online professor when it comes to email. 42% indicate 24 hours or less for an email response should be the norm (Huss & Eastep, 2013). Ironically, most Gen Z students tend to work on an assignment at the eleventh hour (LiveWebTutors.com, 2018), meaning late nights and weekends, which are the exact times when many instructors have a "do not contact me" policy.

Where SoTL Has Led

Interacting effectively with Gen Z students underscores the importance of SoTL, which encourages us to ask questions about how students learn and how they can learn more effectively. SoTL offers professors the tools to become more effective at sharing the object of their passion as faculty continue to hone their craft as teachers, but also as they move into expanding areas of scholarship and examine the realities within their own online classrooms (Draeger, 2013).

Contemplating the needs and preferences of Gen Z has allowed us to bring several recommendations to the University for inclusion in our strategic plan, which is currently undergoing revision. Developing formal and informal teaching academies for distance learning throughout our College of Education as well as a consistent rubric for evaluating the overall quality of online courses are two immediate propositions. Other strategies include designing more online courses or programs in collaboration with instructional designers to emphasize innovative hands-on simulations, animations, educational gaming, consistent student/faculty communication to effectively engage students, and a more deliberate attempt to appraise learner success and feedback regarding online program delivery and overall student experience. In addition, comprehensive professional development in the areas of design, development, and delivery will assist all instructors in gaining "fluency with teaching and learning with technology, not just with technology itself" (Jacobsen et al., 2002, p. 44). Instructors should be given an opportunity to pilot their newly developed Gen Z structures using fellow instructors as students. During this phase, instructors will receive feedback on how the attempts to connect, facilitate, and provide relevant context were perceived in the online delivery. When such feedback has been received and the courses revised where necessary, the next logical step will be to debut some of the modules with volunteer Gen Z students, likely from a prior offering.

Conclusion

Preparing our online classrooms for the continuing influx of Gen Z students requires thoughtful anticipation of this diverse group and the willingness to plan accordingly. Professors must be committed to making inclusion and course design a priority. Gen Z students require a delicate balance between interaction and independence. They are expecting that course materials will be mobile and that video, not text, will be a professor's primary method of instructional delivery. They are more likely to be intrigued with a platform that mimics the social media with which they are accustomed. They seek professors who are personable, humorous, and attentive to their needs. The willingness to make an online class more "humanized" and stress-free is a decision that the instructor makes, but it involves time, practice, and ideas to implement it effectively. Higher education can either adopt philosophies and practices that educate, mobilize, empower, and prepare Generation Z, or miss the opportunity to significantly influence the great minds of our next generation (Seemiller & Grace, 2017).

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"How can linear progress and constant self-improvement be the only stories there are to tell about teaching and learning? We might want SoTL articles to reflect more kinds of experiences that instructors have than the experience of always working toward redemption. What about solutions that require trade-offs, ones that are only temporary, or problems that have no solutions or resist even effective management" (p. 8)?

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