16 Learning

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Understanding educational environments as they relate to Generation Z students is critical. Yet, it is equally important to explore the complex dimensionality of Generation Z as students in both K–12 and in higher education. What they bring to educational environments and how they prefer to learn ultimately shapes their experiences and expectations.

Information literacy in the digital world

With many search engines, websites, video platforms, and social media sites available, there are nearly infinite places where Generation Z students can get information. Because of this, for them, research is less about acquiring new knowledge and more about accessing a quick answer to complete an assignment.[1] Mark Bauerlin, professor and researcher, argues that their immense focus on peer-to-peer relationships in the digital world has come at the expense of developing higher learning.[2] He asserts that this generation needs to live more outside their online social networks reading and writing about critical issues rather than inside of them engaging in online dialogue, online gaming, and following pop culture.[3] But Gabriel Fuentes, a faculty member investigating Generation Z in the field of architecture, counters that there is a vast amount of information available in this "fast-paced and flattened world," making it challenging for Generation Z to navigate when educators use status quo educational techniques.[4] For those in Generation Z to engage in effective reading and writing today, they may need educational support and strategies that were not necessary when those in older generations got information primarily from encyclopedias, library books, and teachers.

And not only do those in Generation Z have to navigate this information overload, they are also likely to come across a great deal of misinformation. With Millennials, the focus was on helping them determine the credibility of the information they retrieved before consuming it as truth. Educators have had to spend time teaching students how to determine the legitimacy of sources appropriate for school as research shifts from books to Wikipedia and online databases to social media.[5] With Generation Z, though, we have to go one step

further – helping them unlearn misinformation. The time it takes to engage in unlearning might be comparable to the time it takes to help them learn. So, although the Internet is our playground, it is important for those in Generation Z to understand that not everything there is accurate, safe, and helpful.

Applied and practical learning

In 1938, Napoleon Hill wrote about the importance of applied learning in education,[6] a message that younger members of the G.I. Generation heading off to college could embrace. He said, "New leaders will become a necessity. This is especially true in the field of education. The leader in that field must, in the future, find ways and means of teaching people HOW TO APPLY the knowledge they receive in school."[7]

Fast-forward to today where the importance of applied learning also holds true with Generation Z. In our Generation Z Stories Study, we found that a higher number of Generation Z college students indicated that applied learning makes learning enjoyable for them, more than any other factor.[8] Those in Generation Z want to fill their toolboxes with real-world knowledge and skills that will help them when they enter the workforce.[9] Real-world knowledge- and skill-building are not just taking place in the classroom either. Seventy-nine percent believe that educational programs should integrate opportunities like internships that offer practical and applied learning.[10]

A study by Ologie on the catchphrases used by colleges for marketing found that Generation Z students' preferred language echoes their desire for applied learning. They didn't favor phrases like "premier institution" and "tight-knit community," but gravitated towards phrases such as "hands-on learning," "real-world experience," and "professional opportunity."[11]

It's not just Generation Z college students who want applied learning. More than three-quarters of both high school students and their teachers believe that hands-on learning is an effective teaching method, a higher number than any other pedagogy.[12] They also believe that students learn best when they have the opportunity for hands-on learning.[13]

" Learning becomes especially enjoyable to me when I can connect content we learned in class to things I care about or things that are pertinent to what's happening in the world at the time. "
– Member of Generation Z

In addition to experiential or project-based learning that has been around long before Generation Z was even born, one unique way that both K–12 institutions and colleges are addressing this need for applied learning is through the implementation of makerspaces on campus.[14] These spaces are often open facilities filled with tools and resources where students can create, invent, and turn their ideas into innovations.

Moving from group to self-learning

For generations, the standard classroom setup included desks in rows facing the front of the room so students could see the board and the teacher. But, the transition to peer-to-peer education and collaborative learning where students sit at tables or in pods with other students seemed to be more popular by the time Millennials were in school, fostering their collaborative and interpersonal spirit. But, only 49 percent of middle and high school students in Generation Z prefer learning that involves small group work.[15] This aligns with findings from our Generation Z Goes to College Study in which interpersonal learning was one of the least-preferred learning styles, with 25 percent indicating that it was not an effective learning method at all.[16]

> *" My ideal learning environment is in a quiet area, though not as quiet as the library. I like to know there are people around me as I am studying. "*
> *– Member of Generation Z*

While many Generation Z college students are not fans of interpersonal learning, it makes sense that their most preferred learning style is intrapersonal.[17] Our Generation Z Goes to College Study revealed that many of them like the notion of independent learning where they control the timing, pace, and environment.[18] With their self-identified characteristics of being determined, responsible, thoughtful, and self-reliant,[19] it seems to fit well that many of them enjoy working on their own. The preference of Generation Z college students for this type of self-directed learning is likely an effect of participating in independent educational activities in K–12. A study by Pew found that 94 percent of teachers of those in Generation Z indicated that it was very likely that their students go online to research information for assignments.[20] Whether they used technology for researching information, interacting with a learning app, or using Google Classroom, being able to search, surf, stream, and post content online is often single-user centric, which fosters a sense of independent learning.

> *" Usually I like it quiet. I like to be around others, though. "*
> *– Member of Generation Z*

But, Generation Z students are not looking to learn in isolated settings with no human interaction. Many of Generation Z college students are social learners[21] and like to learn next to, but not with, others. This is likely why they may not resonate as much with fully online courses. Hybrid classrooms, on the other hand, allow those in Generation Z to engage in self-directed, independent learning leading up to a handful of in-person sessions with an instructor and other learners where they can have face-to-face connection. Thus, Generation Z students might enjoy flipped classrooms where students work on assignments before coming to class.[22] In doing so, they could engage in independent learning

experiences beforehand and then participate in hands-on applied learning with their peers during class time. This notion of flipped learning is not just for colleges, though. Researchers at the Thomas B. Fordham Institute suggest flipped learning for high schools as well.[23]

Learning in an era of curated identities

Generation Z is the first generation to grow up in an entirely digital era, where their identities were already commented on, shaped by, and "liked" online by the time their eager Generation X parents could post their baby pictures. It makes sense then that those in Generation Z are cautious and private when online,[24] wanting to take control of how others see them – essentially managing their reputation and personal brand. This desire for reputation management could come into play in the classroom when Generation Z students are asked to raise their hands to answer a question or share a comment. Some may feel intimidated or nervous to speak up in front of the class for fear of being wrong. Maintaining a reputation for silence might seem more positive to them than running the risk of not being seen as smart by their peers and even the instructor. By wanting to be sure of their thoughts, ideas, and responses before sharing them with others, those in Generation Z might feel compelled to come to class prepared to participate.

> " *I don't enjoy speaking my thoughts. I like to think everything through first and organize my thoughts and present when I know I am on the right track.* "
> – Member of Generation Z

On the other hand, however, this fear of being vulnerable might affect their self-esteem and propensity to take risks in their learning. Given that they are less physically risky and are fearful of emotional distress,[25] it would not be surprising for them to also be less apt to take academic risks in front of others. Because of this, a flipped classroom where they can complete assignments ahead of time might give Generation Z students the opportunity to become more knowledgeable and confident about class content before being asked to participate in discussions and activities during class. Enhanced confidence could result in more class engagement and/or less dislike of group learning because they are not intimidated or nervous to suggest a wrong answer in front of others.

> " *My ideal learning environment would be in a small group [with] individual attention to the students and where I could get help from the instructor without feeling intimidated by them.* "
> – Member of Generation Z

Show me first and then let me try

Sixty-two percent of Generation Z high school students and 66 percent of teachers believe that watching others complete a task is an effective learning method.[26] Those in Generation Z like seeing sample exemplary work, participating in practice sessions, watching demonstrations, and working through example problems with the instructor so they are clear about the expectations of an assignment and feel comfortable attempting to complete it.[27] This may seem like hand-holding, but with Generation Z's high level of responsibility,[28] many of them just likely want to make sure they are doing the assignment correctly.

> *"I like it when I can see an example of what I'm supposed to do. Depending on the task, this could be step-by-step instructions or simply an example of the end result. I would have someone talk me through the process while simultaneously showing me where I'm supposed to be."*
> *– Member of Generation Z*

Video-based learning

One way in which Generation Z students can capitalize on their desire for learning by watching others is through the use of video-based learning. While those in the G.I. Generation didn't necessarily have videos in their classrooms, watching films in class seems to date back several generations. Those films were often on a reel or tape that the instructor acquired to show in class. For Gen Xers and Millennials, watching educational movies or films during school often occurred on special occasions or rainy days. For Generation Z, video-based learning is not only widespread and accessible, learning and acquiring new information is one of this generation's primary uses for video-based content.[29] Generation Z students can access nearly any recording they want, either through a streaming service or a simple Internet search. And while it may seem that many of them fill their time watching silly videos, it is still quite easy for them to seek out videos for their own learning. And they do. We found that nearly 90 percent of Generation Z college students go to YouTube to learn new knowledge.[30] And, a study by Barnes & Noble found that 80 percent of Generation Z high school teens believe YouTube is a helpful learning tool.[31]

But, not every generation, even recent ones, see video-based learning as poignant as those in Generation Z do. Take cooking, for example. How we have learned to make a particular dish has evolved over time. For centuries, recipes were often passed down from generation to generation through demonstrations and oral instruction. Then, with the ability to write, recipes could be documented in a cookbook. With the advent of the Internet, there was an

explosion of written recipes, where, in some cases, a simple Internet search could yield 500 ways to make the same dish. Now, with sites that allow everyday users to upload their own videos online, it is easy to actually watch someone cook nearly any recipe that exists, with the ability to rewind and pause to ensure that no steps are missed. Despite the thousands of cooking videos available online, reading a recipe (albeit from the Internet rather than a cookbook) might still seem more comfortable for older generations because following a written recipe is how many of them learned to cook. But that isn't the case for those in Generation Z who enjoy video-based learning. While their Generation X parents might prefer to read an enchilada recipe, those in Generation Z might just turn on YouTube or a Tasty video to watch someone properly roll the tortillas before baking them.

Watching a video versus reading printed material (or even a website) taps into a different learning mode, reflecting more of consumption of information rather than interpretation. And, those in the business of educational technology are leveraging that consumption approach with Generation Z students. Rather than publishing e-books, which are essentially books to be read, Pearson has recently released choose your own adventure education subscriptions, mirroring a Netflix-type approach to digitized content, putting interactive information, videos, and animation in a manner to be "consumed" and not "read."[32] Perhaps consumption feels less rigorous or overwhelming for those in Generation Z, hence their ability to binge-watch an entire season of a series in one weekend. Or maybe because of the nearly 50 percent decrease in attention spans over the last 10 years,[33] entertaining snippets that blend multimedia rather than the one-dimensional format of printed text may be more alluring to those in Generation Z.

Digital distractions or learning aids?

Growing up in a digital age with early exposure to technology has likely fostered the desire of those in Generation Z to use personal devices in college classrooms. The same students who were encouraged, and maybe even required, to use a Chromebook in high school are now bringing their own laptops to their college classrooms. There are mixed sentiments from college instructors about students using digital devices like laptops and tablets during class.[34] Research has shown two competing findings and viewpoints. On the one hand, there is a relationship between students who use digital devices in the classroom and lower test scores,[35,36] indicating that these devices might be more distracting than helpful for learning. At the K–12 level, however, a study by online study guide platform, Quizlet, found that 70 percent of Generation Z students believe that intentional use of technology during class contributes to quicker learning than using traditional methods.[37] It is likely that the intentionality of the technology integration determines how helpful or distracting technology in the classroom can be for Generation Z students.

Learning environments

Given that those in Generation Z identify as intrapersonal, yet social, learners,[38] what they look for in an ideal learning environment reflects the way they like to learn.

First, this generation looks at all spaces to be adaptable, "blurring and balancing the boundaries between working, socializing, learning, shopping, eating, discovering, and more so spaces are distinguished by etiquette, not by function."[39] Further, due to their desire for applied and experiential learning,[40] having flexible learning spaces is key. Being able to move furniture from independent seating to group discussion and then off to the side allows the space for instruction to be fluid and adaptable.

> " My ideal learning environment is 'in a large space with others who are quiet and everyone has their own table or space to work and little distractions, and I will occasionally listen to music from earbuds.' "
> – Member of Generation Z

In addition to flexible and mixed-use space, Generation Z college students, in particular, prefer quiet learning environments where students can tune out with headphones or earbuds either listening to music or even white noise.[41] But, their social nature means that they like to be in close proximity with other students to learn, as long as those students are serious about their learning and aren't distracting.[42]

Passionate and caring educators

It is also important to acknowledge that educators play an important role for those in Generation Z. For example, Generation Z high school students prefer teachers who are genuinely excited about teaching their subject matter.[43] That excitement can help pique their curiosity and interest in particular content. In addition, a study by Ologie found that 61 percent of high school students reported that their teachers or counselors were influential in their college selection process.[44] These students look to their teachers as individuals whose opinions they trust and respect. But they don't just want subject matter experts who can share their knowledge.

> " Learning is enjoyable to me when I have a teacher who is loving the subject that they are teaching, challenging me to see beyond just the information and I am learning at least one new thing each time I'm in the classroom. "
> – Member of Generation Z

Generation Z high school students also look to their teachers for emotional support.[45] A study by the Thomas B. Fordham Institute found that in determining archetypes for high school students that 15 percent fall into the category of Teacher Responder, placing great value on the relationships they create with their teachers.[46] These students thrive the most when they believe their teachers are invested in their personal and academic development.[47]

We found in both of our studies that college students feel much the same way. For many of them, they see their instructors as facilitators who aid in learning instead of experts who impart their wisdom to their students.[48] And, they want their instructors to be storytellers, sharing their real-life experiences and bringing the content to life. But their instructors are more than just facilitators and storytellers. Because many of them want to feel cared about by the educators in their lives, it is no surprise that they also see them as caretakers.[49]

> ❝ *My ideal learning environment is 'with an instructor who is both highly knowledgeable of the subject and deeply passionate for teaching students, and about the students themselves.'* ❞
> *– Member of Generation Z*

Conclusion

Many in Generation Z are lifetime learners and have been facilitating their own self-education since they could swipe a tablet. But, their preferences for learning, especially intrapersonal, self-paced, and applied, go beyond simply the access they have to today's technology. How they approach learning is likely reflective of a larger educational context and characteristics specific to this cohort. So as we uncover more about who Generation Z is, the more we can make sense of and leverage the capacities of this generation in and out of school.

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