STEP 1

Understand Generation Z

s the world becomes more connected, educators everywhere are scrambling to find ways to adapt their teaching to keep up with their rapidly evolving world.

Some researchers who study societal trends have labeled this generation of students—those born after 2000—Generation Z. We've heard of Baby Boomers, Generation X, and Generation Y. All of those generations had to adapt and embrace a digital world, but the difference in Generation Z is that it is the first generation to be born into the digital age (Rothman, n. d.). Although Generation Z might adapt to a 20th century model, it is an unnatural fit, and our teaching and classroom design should be adjusted. Generation Z has spent its entire life with cell phones, computers, touch screens, and games. They have grown up in an anytime/anywhere world where varied information and entertainment options are always available at their fingertips, and they want this freedom of choice in all parts of their lives, including their lifestyles and learning styles. Educators know their students need global skills and technology, and the more educators learn about today's students the more they realize they need a new type of learning space.

This is not just an American initiative. Educators around the world are using their thinking space to transform their learning space.

The Beijing National Day School (BNDS) is one of China's premier public high schools. Its students come from throughout Beijing and every province in China, and they regularly achieve some of the highest scores in the world on College Board Advanced Placement tests and other American college readiness exams. Each year over 200 universities from North America, Europe, and Australia visit the school's campus on the west side of Beijing to recruit its students, who they recognize as being some of the finest in the world.

The international teaching staff at BNDS comes from 14 different countries. One of the teachers, Alejandra Rivera, is a native of Honduras and teaches business and economics. Rivera often incorporates global skills and the student use of technology into her curriculum. Students are often moving around the room, working together, and using their computers to demonstrate what they have learned. At times her current classroom feels too small for her activities. Like many other teachers, she dreams of having a better space that will allow her—and her Generation Z students—to be more creative.

The more years I teach, the more I realize how inadequate our classrooms are for implementing creative and innovative lesson plans for today's students. Aligned desks work great for lectures; however, we need to teach them skills that prepare them for jobs of the 21st century. I have learned that when I plan kinesthetic lessons, I get great results; kids remember more of the content being taught and they are more engaged rather than just preparing for a test.

The problem with planning kinesthetic lessons is actually having the right space for one. Currently, my classrooms are filled with 25 desks, and I have very little space left for moving them around. Rows and rows of desks do not lend themselves to collaborative learning or team-building activities.

If I could have a say how my ideal classroom would look, it would be huge, one that would allow me to create different areas so that we could move around according to the planned activities. I like to have big classrooms. In the past, when I have been lucky enough to have one, I have enjoyed greatly doing stations; this allows students to move around, maintains them engaged, and to go through different material in a fun, short way. I would like to have two big smart boards, one on each end of the classroom; two or more flip chart easels; microphones available so students get used to talking into them; and several plants spread around the classroom.

On one corner of the room, I would have a big rug, just like the one we used to sit on when in kindergarten. One is never too old for storytelling, even if now the topics are about economics or business studies. For example, we recently read Chapter 1 of the book Freakonomics, and the rug space would have been useful to sit there and discuss the reading in a more relaxed space that would allow the students to feel more comfortable sharing their ideas or asking questions about the reading.

I would like to have beanbag chairs spread around the room so students can sit and read near big windows that could be opened, and there would be walls with colorful art or posters, creating an environment that would create a better setting for reading.

As for the tables, I would like to have round tables that would encourage collaborative learning and would be great for discussion and teamwork projects. We do several group projects, and having round tables allows the kids to share their ideas with each other and collaborate in problem-solving activities. In my business class, when starting the unit of leadership, we did the Marshmallow Challenge and then we did a reflection on the leadership style that emerged in each member during the activity. Having them work in round tables would have been better.

I believe we should also have long working tables in a part of the classroom with baskets filled with tons of markers, colors, Legos, and art and craft materials. Creativity flows when given a creative setting. They should be allowed to be crafty in any of the projects that are assigned to them. We recently played economic charades, and I thought a flip chart easel would have worked perfectly. Another example was when they had to create a poster of an economic system (traditional, command, and market), and they had to describe the economic system, show how they could answer the three basic economic questions, explain the pros and cons, and show an example, all this using only 20 words. At first the kids were stressed out, and they said it was impossible, but they were creative and were able to allocate the scarcity of words properly, which was another topic they had already learned in economics—scarcity. I believe it's fun to give kids challenges of creating things; this enhances their critical-thinking skills and teaches them how to work in teams.

In a separate room of the school, I would love to have a room with a stage, like the TEDTalk stage, so students can have an accessible but formal stage to work on their presentation skills. A room with a big screen placed above the speaker, monitor with slides and timer for the speaker, some decoration, good lighting, and a recording system so students are able to record and see themselves present and work on weaknesses. I would also like a rolling mirror wall so students can roll it in front of them and see themselves and work on their mannerisms. This would be great for my business class, where we work hard on their presentation skills. (A. Rivera, personal communication, April 11, 2015)

Stages and Legos? Storytelling rugs and beanbag chairs? Some educators might say it's impossible to create such a space in their high school. Others might not fully understand Rivera's perspective on teaching 21st century students.

But some schools are already creating these types of learning spaces built around the needs of Generation Z. We can call them *Z Spaces*, which are classrooms, hallways, conference rooms, presentation rooms, or any other space in a school designed to meet the learning needs of Generation Z. They will look different and function in a different manner. Teachers like Rivera are embracing these Z Spaces. We need more Alejandra Riveras in the world, and we need schools that can help her to implement her vision.

The Beijing National Day School is responding—it is currently undergoing an extensive renovation that will make its teaching environment among the world's finest. Its administration understands the world has changed, and its students' needs are changing. The administration is applying a universal rule of teaching: *know your students*.

That rule is especially pertinent today as our students have evolved from receivers of information to interactive participants in their learning. But as educators, we are often so busy keeping up with the changes in education and our government mandates that we have trouble keeping up with the societal changes occurring around us. As we redesign our learning space, it is imperative that we understand the students who will be using it.

Debra Jasper is the CEO of Mindset Digital, and she has a firm understanding of the challenge before us. Prior to forming her company, she was an award-winning investigative reporter and directed the Kiplinger Program in Public Affairs Journalism at The Ohio State University. She has studied the trends shaping our society, especially those related to social media, and today she travels the world helping Fortune 500 executives to shift their thinking to understand their clients who live in a digital world. She encourages educators to think differently, too.

In today's social world, it's easy to get a message out. Think Twitter, Instagram, Snapchat, Pinterest, Vine, Periscope—there are more channels than ever. What's hard is getting a message in, getting hyperdistracted students to tune in to what you have to say. To capture attention, teachers today have to stay up to speed on the latest technologies and approaches.

Savvy teachers and administrators know they can't just ignore all of this anymore. Students need to learn not only how to use new platforms but how to use them safely and effectively. Today's educators get that there are two ROIs. The first is the return on investment in teaching students how to use technologies. And the second is the risk of ignoring—educators can't just ignore social media platforms where one out of seven people on earth are spending their time.

Today's attention span is 8 seconds on average. Eight seconds. That doesn't mean students won't tune in longer. Clearly, many of them will play video games or text their friends for hours. The 8-second attention span simply means that all of us are making snap decisions about whether your content is worth our time.

That means teachers today must not only adopt new technologies and approaches but also understand that social media is changing everything else they do. Their classroom presentations need to contain more visuals and less text, for example (in our 1-hour keynote presentations, for example, we typically show more than 350 highly visual slides). And teachers' notes to students and parents must be shorter and more skimmable. All of their communications—whether they are communicating to students, parents, administrators, or even their own colleagues—must be clear, to the point, and relevant.

You first need to help students adopt a new mindset before they will want to learn a new skill set. So schools across the country need to understand that social media has dramatically changed student expectations. They are looking to learn in environments that are more informal, engaging, and real-time. After all, there are no education rules that say you have to be boring.

At the same time, we emphasize that casual does not mean careless. It simply means more personable, entertaining, and fun.

Teachers who learn how to shift away from creating old-school, "blackboard" type content and into producing lively, informative classroom presentations that take advantage of Twitter, Vine videos, Periscope, and other technologies will better understand how to both inform and entertain. And today, if you want students to tune in, you must engage them first. There are no captive audiences, even in the classroom. (D. Jasper, personal communication, May 24, 2015)

As Jasper points out, today's generation of young people has different expectations.

Those of us teaching this generation had to immigrate into the digital world, but today's students are natives who have been shaped by it. So, shouldn't we shape our learning space around Generation Z? As we shift our thinking in what we teach and how we teach to create these Z Spaces, let's consider the characteristics and needs of the young people of Generation Z.

THE IMPORTANCE OF (ELL PHONES

First, Generation Z students tend to be connected to their peers 24/7, and they panic when they don't have access to their devices. A cell phone is more than a tool for making phone calls: it is a storage area for texts and a vital repository for the phone numbers that form a students' social hub. In their minds, to lose a phone or to lose connectivity is to be cast adrift socially. Our high schools are filled with stories of normally mild-mannered students who have acted irrationally when their cell phones are confiscated, stolen, or lost. They've always had access to a cell phone, and to carry one is as natural as Baby Boomers carrying wallets. They are not necessarily addicted to their devices but addicted to the connection. Unlike their predecessors, many students today do not wear wristwatches. When they need to check the time, they look at their cell phones. They are the most important objects they carry each day, more important than any text-book or binder.

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Generation Z students are connected. Our students interact with a multitude of online sites, and this is the mode they often use to communicate and to think. They might call each other on the phone, but they will often tweet or use some other form of social media to quickly send their thoughts to a friend—often in fewer than 140 characters.

THE INFLUENCE OF GAMING

Gaming has shaped their brains and learning. Generation Z students are used to solving problems, sometimes alone and sometimes online with others. The parts of their brains that process images have become more developed than those of previous generations, which means they respond positively to imagery, bright colors, and movement. When presented with a visual problem, they want to figure it out as they would a video game. In a video game they are given constant feedback, and when they conquer a step they are rewarded by moving on to the next level. Some of them have grown up being connected to other young people from around the world through online gaming, either as teammates in pursuit of the same gaming goals or as competitors. This has forced them to be digital problem solvers.

WORKING IN SMALL GROUPS

Because of their constant connectivity, Generation Z students are used to interacting with small groups (Rothman), and this connectivity makes it easier for them to find times and places to meet in person, such as the local Starbucks, where they can sit, talk, study, game, check messages, tweet, text, and watch streaming videos and TV shows all at the same time. As we redesign our space, let's allow them to have areas to work in small groups, to spread out, and choose seating in an environment that fits their personality and task. These students can carry pens, pencils, and binders, but writing by hand on paper is less natural than typing. They will need spaces where they can sit comfortably and use a tablet or laptop. This space can be in a classroom, in a small conference room, or in a hallway. If we walk down any hallway in many schools today, we will see students sitting outside of classrooms in student desks they've carried into the hallway or they will be sitting on the floor. The hallways have often been turned into impromptu learning spaces; it's time they were actively designed to be learning spaces. A few pieces of furniture placed in key hallways can provide viable options to support small-group learning.

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IT'S ALL ABOUT THE INTERNET

When Generation Z students want to figure something out, they turn to Google, YouTube, Vine, or the Comedy Channel. They're not going to go to the media center to find a book. Instead they'd rather watch a video, and they want the information delivered quickly and in small meaningful chunks. They will spend an average of 8 seconds scanning a page for links or fast-forwarding through a video (Rothman). The students of Generation Z don't believe in e-mail; they'd rather text, tweet, Snapchat, or message someone. E-mails are too long and take too much time to compose and read.

MEMORIZATION AND MOTIVATION

Students today can memorize information for our tests, but they know they will be using their cell phones and tablets to Google information when they are outside of school. Memorization is only done in school to achieve a grade, which calls into question the role of memorization in a 21st century classroom. All students need to have a core set of factual understandings on which to build and apply knowledge, but where is the line between building that set and asking students to memorize information they could just as easily Google?

The deepest learning often occurs when the content is meaningful and not just when the content is memorized to achieve an external reward. Ideally, we could work with our students to have them prove to us in some other creative manner that they have mastered concepts. Consequently, this calls into question the use of grades in 21st century classrooms. We must ask if it is more effective to have students work to achieve grades or to achieve knowledge—sometimes they coincide and sometimes they do not.

And if we can build a system where students are motivated by the curriculum and the type of assessment they are using, will they want to be in class more and be there on time? At the secondary level, what should be the role of bells in calling students to class and dismissing them? Are they still needed? Can students make it to class on time because they wish to learn and are not responding to a bell? This is a discussion for each staff and one that can be had with students. There are no easy answers.

THE IMPORTANCE OF RELATIONSHIPS

As we reexamine our philosophy, practices, and learning space to teach Generation Z, we must also remember that it has commonalities with other generations we have taught. These students still need friends and a sense of belonging. Though they might be connected to a wide circle through social

media, we must give them opportunities to interface and form personal bonds with their peers and teachers. Regardless of their online learning activities or their ability to function online independently, they still need access to high-quality, motivated, professional educators who care about them and their progress. It's possible the freedoms to which they must be exposed in their learning will necessitate more guidance than ever from educators. They are used to multitasking, but this doesn't necessarily mean they can complete complicated tasks when doing so, and Generation Z has more questions about its future jobs than any other generation, because so many of those jobs do not exist yet. Our students need us more than ever.

BEGIN TAKING STEPS-NOW!

Another educator who sees the potential of the Z Space being created at the Beijing National Day School is Santosh Madhavan. He has successfully taught physics to young people for over 30 years and knows he must continue to evolve with his students. For example, in his classroom today he has his students download apps onto their cell phones to use in labs. However, when his students complete the labs they often bump into each other and struggle to be heard over the conversations of their peers and the noise of the apps. He knows his kinesthetic teaching could be more effective if he had a variety of spaces to use.

Madhavan asks some fair questions about why our schools look alike and if we really need to keep building the same types of space.

Educational institutions are slow to react to changes. The inertia of the system has a whole host of reasons but is often the inability for the decision makers to foresee changes. Educators involved with designing schools should get ahead of the curve by adopting a new perspective in assigning space for classroom use. Fundamentally, it is sound to ask oneself, do we keep doing the same thing over and over again? In the future, are students going to sit at desks to hear teachers lecture? At the very least, should we not be thinking about how education will evolve in the light of freely available powerful handheld and wearable digital devices and how that would affect the use of space in schools? (Madhavan, personal interview, May 1, 2015)

To repeat what Madhavan asks, do we keep doing the same thing over and over again?

As the Chinese philosopher Lao Tzu said, "A journey of a thousand miles begins with a single step." It's time to begin taking steps to create space for our Generation Z students.

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PROFESSIONAL DEVELOPMENT IDEAS TO UNDERSTAND GENERATION Z

Collaborate

- Discuss the school's cell phone policy and determine if it is adequate for working with Generation Z.
- Ask your students which social media sites they use and how they use them.
- Poll your students about their online gaming habits and ask about the most difficult problem they have solved in one stage of their favorite game.
- Ask your students which site they go to online when they need a fast answer to a question.
- Ask your fellow educators and your students how much material should be memorized today and how that material should be chosen.
- Ask your students what motivates them outside of school. Discuss the positive and negative effect of grades with your students.
- Turn the bells off for one day and discuss the results with your colleagues and students.
- Start discussing with students the concept of using different kinds of furniture in classrooms. Begin to open up their minds to being partners in helping you to choose chairs, desks, and other types of furniture of the new learning space.

Think Critically

• Read books, look at websites, or watch videos about the characteristics of Generation Z.

Here are some recommended books.

- Teaching the Digital Generation: No More Cookie-Cutter High Schools, Frank Kelly, Ted McCain, and Ian Jukes
- o A Whole New Mind, Daniel Pink
- o Digital Leadership: Changing Paradigm for Changing Times, Eric Sheninger
- o Creative Confidence, Chip and Dan Heath
- Corwin Connected Educators series

- Watch these videos and discuss their major points.
 - o Sir Ken Robinson, Do Schools Kill Creativity? TEDTalk
 - o Sir Ken Robinson, Bring on the Learning Revolution TEDTalk
 - o Salman Khan, Let's Use Video to Reinvent Education TEDTalk
 - o Ramsey Mussallam, 3 Rules to Spark Learning TEDTalk

Create

- Ask your students to help you create ways to use social media in the school to share information or give assignments.
- Create social media guidelines for students and staff.

Communicate

• Use social media to share the results of your discussions about Generation Z with your community.

Stretch to the Future

Meet periodically and discuss trends being exhibited by students.

Continue to research it to see what others are thinking.



Research

Study three sources of research (e.g., books, articles, blogs, videos) about Generation Z. List what each source says about Generation Z and discuss the commonalities.

What does this source say about Generation Z? What does this source say about Generation Z? What does this source say about Generation Z?	
	say

Analysis of Current Practices

Analyze your current practices and determine which ones are conducive to teaching Generation Z and which ones need to be adjusted as you prepare to design a new type of learning space. Some of the practices are listed for you. Feel free to add to the list.

PRACTICES THAT FIT THE LEARNING STYLES THAT WILL BENEFIT GENERATION Z	IS THIS PRACTICE ALREADY OCCURRING IN YOUR CLASSROOM?	WHAT CAN YOU DO TO ADJUST THE PRACTICE?	DO YOU HAVE OTHER IDEAS OR SUGGESTIONS?
Cell phone policy	· ``		
Use of social media	J'AC		
Group work		Win	
Online research			207
24/7 learning			6

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PRACTICES THAT FIT THE LEARNING STYLES THAT WILL BENEFIT GENERATION Z	IS THIS PRACTICE ALREADY OCCURRING IN YOUR CLASSROOM?	WHAT CAN YOU DO TO ADJUST THE PRACTICE?	DO YOU HAVE OTHER IDEAS OR SUGGESTIONS?
Student choice in working space			
Student options in the curriculum and assessment	•		
Bell schedule	7//		
Blended learning opportunities		Win	
			2
			6

Transitioning to the New Space

The move into the new space is more than a physical move; it is also a mental move for all parties. Begin to make the transition to the new space before the space is actually used.

Start asking your students what features they want in the new learning space. Ask them about paint colors, furniture preferences, natural lighting, and what can be done with the space to make it both efficient and fun.
If an architect is involved in the space redesign, what discussions have you had with the architect to share ideas about Generation Z?
Begin a dialogue with students about how they will be able to use the new space efficiently, ethically, and in a mature manner.
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Other ideas:

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