



**VCU**

School of Pharmacy

# Expanding Clinical Opportunities

**Barbara J. Exum, PharmD**

Associate Professor, Pharmaceutics

Director, Center for Compounding Practice and Research

# Learning Objectives

- Define the habits and trends that vary from generation to generation.
- Discuss the need to adapt our messages, approaches, and processes to be aligned with their expectations.
- Identify ways that will ultimately expand clinical opportunities for the students.



Who *had* we  
been teaching  
AND hiring?

MILLENNIALS  
(22 through 37)



**VCU** Center for Compounding  
Practice and Research  
School of Pharmacy

Who are we  
teaching  
AND  
hiring?  
  
GEN Z  
(21 and Under)



[This Photo](#) by Unknown Author is licensed under [CC BY-NC-ND](#)



THEY HAVE GROWN UP WITH  
**MOBILE DEVICES.**

IN FACT, 2/3 WOULD  
**RATHER TEXT**  
THAN SPEAK TO SOMEONE  
ON THE PHONE.

THEY WON'T GO NEAR  
A RETAILER THAT  
**DOESN'T HAVE  
A WEBSITE.**

AS OPPOSED TO  
**MOBILE PHONES.**

**MEET GEN Z:**  
THE SOCIAL MEDIA-IMMERSED,  
ENTREPRENEURIAL  
ECONOMIC POWERHOUSE

amazon  
**AMAZON**  
HAS NEVER BEEN JUST A  
RIVER IN SOUTH AMERICA.

**85%**  
OWN SMARTPHONES.

WOMEN HAVE ALWAYS  
**OUTNUMBERED  
MEN**  
ON COLLEGE CAMPUSES.

MOST HAVE NEVER  
GONE TO A STORE TO  
**BUY MUSIC.**



ON AVERAGE THEY SEND  
**MORE THAN 100 TEXTS**  
PER DAY.

MORE THAN  90% ARE ON  
**SOCIAL MEDIA**  
DAILY.  
(MORE THAN 75% FROM A MOBILE DEVICE.)

# Differences between Millennials and Gen Zs

## Millennials

- *Millennials spent money boldly and with few boundaries*
- *Millennials grew up during a strong economy*
- *Millennials subscribed to everything social*
- *Millennials watched YouTube, Hulu and Netflix*
- *Millennials loved sports and adventure*
- *Millennials grew up with slightly longer attention spans*
- *Millennials would initiate text for communication*
- *Millennials enjoyed a life that revolved around them*

## Generation Z

- *57 percent of Generation Z prefers saving money to spending it.*
- *Generation Z is growing up in a time of recession, terrorism, violence, volatility and complexity.*
- *Generation Z does not wish to be tracked and prefers more private networks like Snapchat, Whisper, Secret, and Yik Yak.*
- *Generation Z creates content and interactive work.*
- *Generation Z sees sports as a health tool, not for play. Their games are inside. Teen obesity has tripled since 1970.*
- *Generation Z has an attention span of 8 seconds.*
- *Generation Z prefers communicating through images, icons and symbols.*
- *Generation Z plans on coping with multi-generational households and marriages (400 percent increase).*



**VCU**

School of Pharmacy  
Center for Compounding Practice  
and Research

# How to Engage Generation Z

Listen to them. They want to be heard

Desire frequent rewards and changed according to expectations and demands

Gen Z students already connect with people around the world secondary to technology

Gen Z students would like to attend college for the social connections and network

Gen Z students use technology to solve problems

Gen Z students want to shape their own journey with you as the guide

Information gathered 8/2017: [https://sites.google.com/a/uis.edu/colrs\\_cook/home/engaging-generation-z-students](https://sites.google.com/a/uis.edu/colrs_cook/home/engaging-generation-z-students)

# Success with Generation Z in the classroom

Materials should be colorful and filled with images – not text.

Appeal to Gen Z students on what the outcome of their education could offer them. Outcomes matter more than traditions and cost to them

Gen Z students turn to their peers more than higher ed experts during decision-making

Gen Z is not into “Helicopter Parenting”

Source: Information gathered 8/2017. <http://www.eduventures.com/2014/09/recruiting-gen-z/>



# Generation Z

## Trends in Education

- Less reliance on physical classroom.
- Realistic vs optimistic
- Debt avoiders, less impulsive
- Want training vs. general education



Source: Information gathered 8/2016 from [forbes.com](http://www.forbes.com) Generation Z: Rebels With A Cause: <http://www.forbes.com/sites/onmarketing/2013/05/28/generation-z-rebels-with-a-cause/#3b18d84a6aa1>



# A Growing Problem

## Gen Zers have a common secret

- They are not as comfortable with new technology as older generations would typically presume.

<https://www.worklife.news/technology/myth-buster-young-workers-are-not-tech-savvy-in-the-workplace-and-its-a-growing-problem/> accessed 6/1/2023



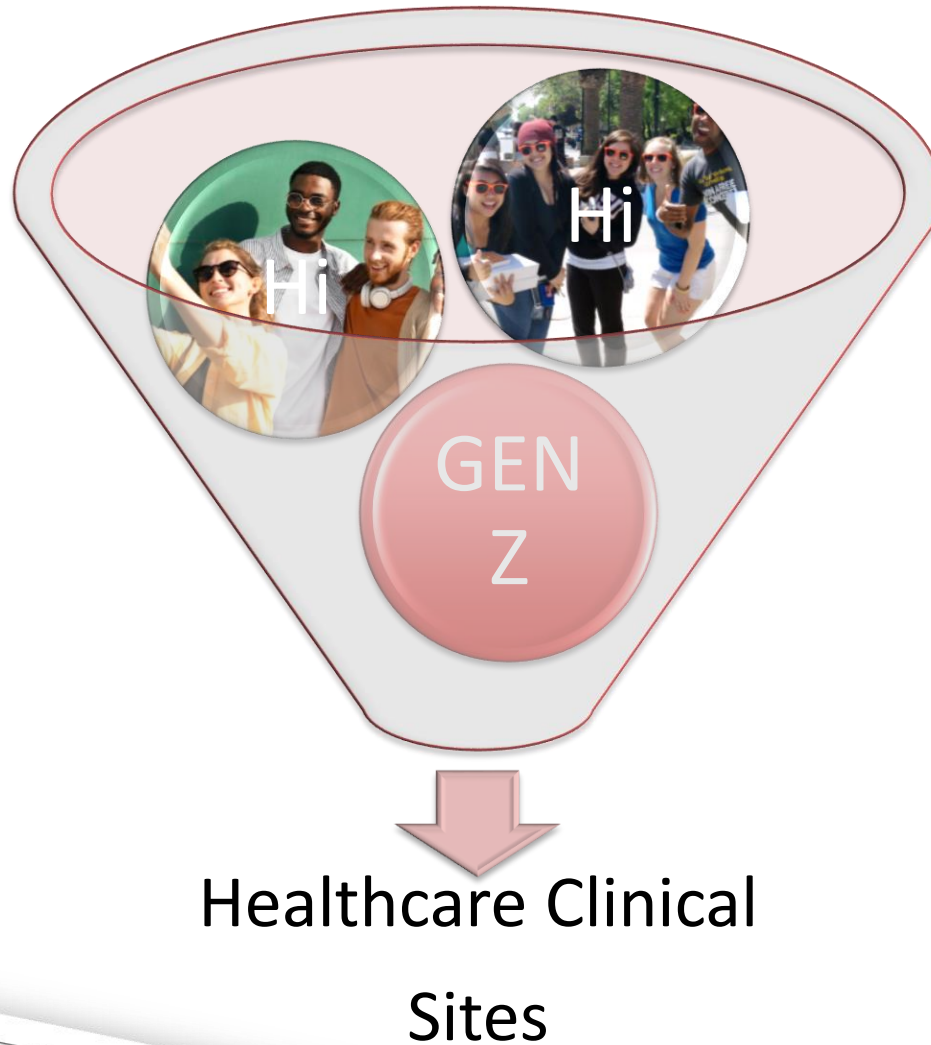
# What are workplace technologies?

- computers
- internet systems
- printers
- mobile devices
- software applications

# What are digital technologies?

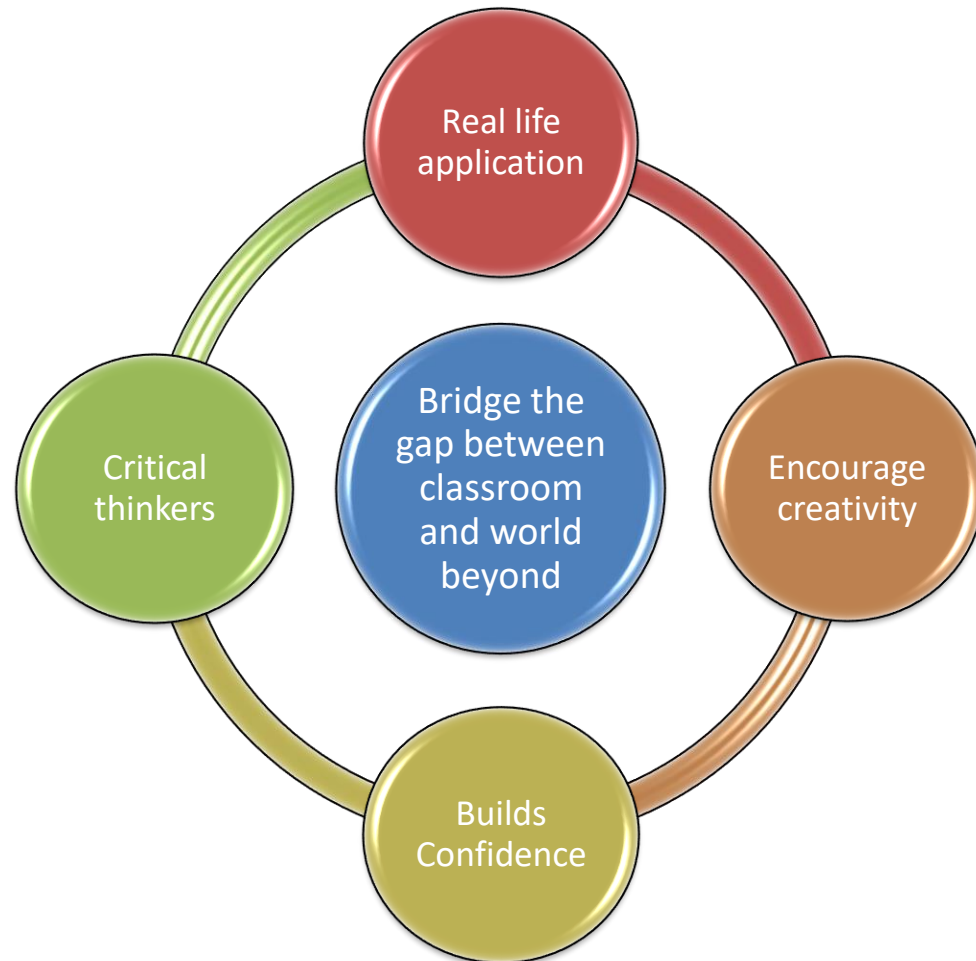
- electronic tools
- systems
- devices
- resources that generate, store or process data
  - social media
  - online games
  - multimedia
  - mobile phones.

# Introducing



# Why are Clinical Sites Important?

Real life  
skills needed  
for future  
success



**VCU**

School of Pharmacy  
Center for Compounding Practice  
and Research



# Educators

Clinical Site  
Expectations



Align with student  
future goals



Interest in  
empowering  
student success



**VCU**

School of Pharmacy  
Center for Compounding Practice  
and Research

# Healthcare Clinical Sites

Expectations

- Detailed learning plan
- Specific foundational skills



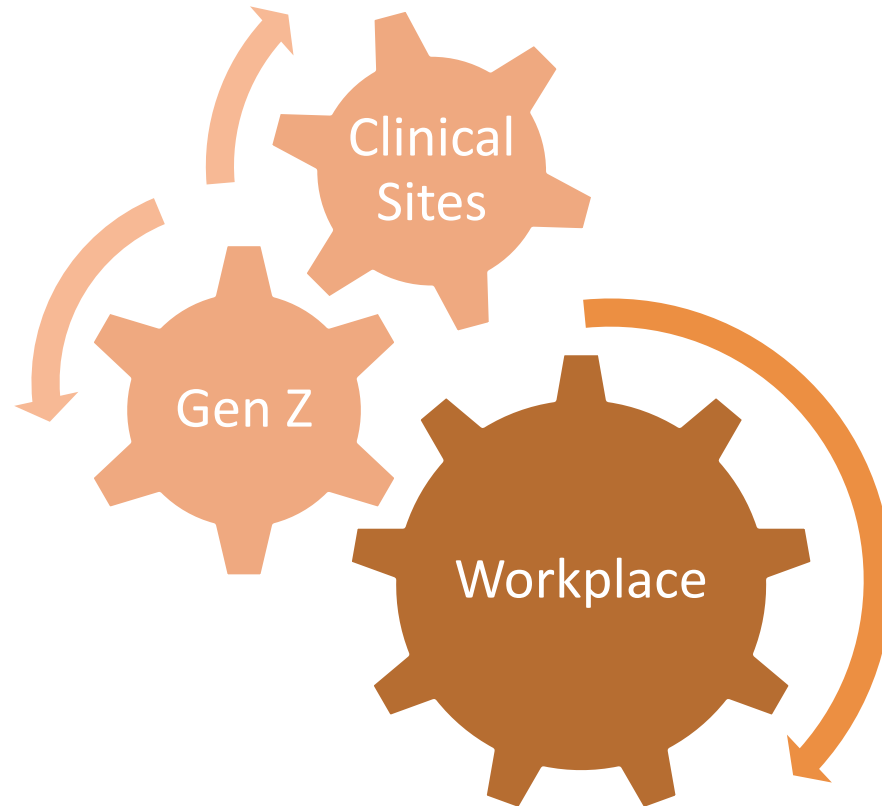
# Healthcare Clinical Sites

## Benefits

- Meet Gen Z
- Benefit from their manpower
- Provide leadership opportunities



# Mutually Beneficial



**VCU**

School of Pharmacy  
Center for Compounding Practice  
and Research

# The Time is Now

## CLINICAL SITE

Healthcare  
industry staffing  
crisis

## STUDENT TRAINEES

Real life  
experience in the  
workplace



**VCU**

School of Pharmacy  
Center for Compounding Practice  
and Research

# Building and Expanding Relationships with Healthcare Organizations

Target appropriate employers

Work with employer on structuring clinical site training that will benefit all

Select students that who are interested in the clinical site and meet selection criteria

Facilitate employers' interviews of student candidate and encourage employer input

Prepare students for their clinical sites

Ensure adequate supervision is provided during the clinical site



# Building and Expanding Relationships with Healthcare Organizations

Provide for structured student reflection

Obtain evaluations of the activity from students and employers.

Compile, document, and share results of these evaluations with key stakeholders

Provide structured opportunities for students to share how their clinical site training aligned with their coursework, future education, and career plans.

Recognize your host employers, workplace supervisors, and students.

# Approaches to Preparatory Coursework

Rigorous curriculum that emphasizes real-world skills and knowledge

Project-based

Competency-based

Interdisciplinary learner



**VCU**

School of Pharmacy  
Center for Compounding Practice  
and Research

# How to Motivate the Students

Create high intensity relationships

Provide more training in the area of interpersonal and communication skills

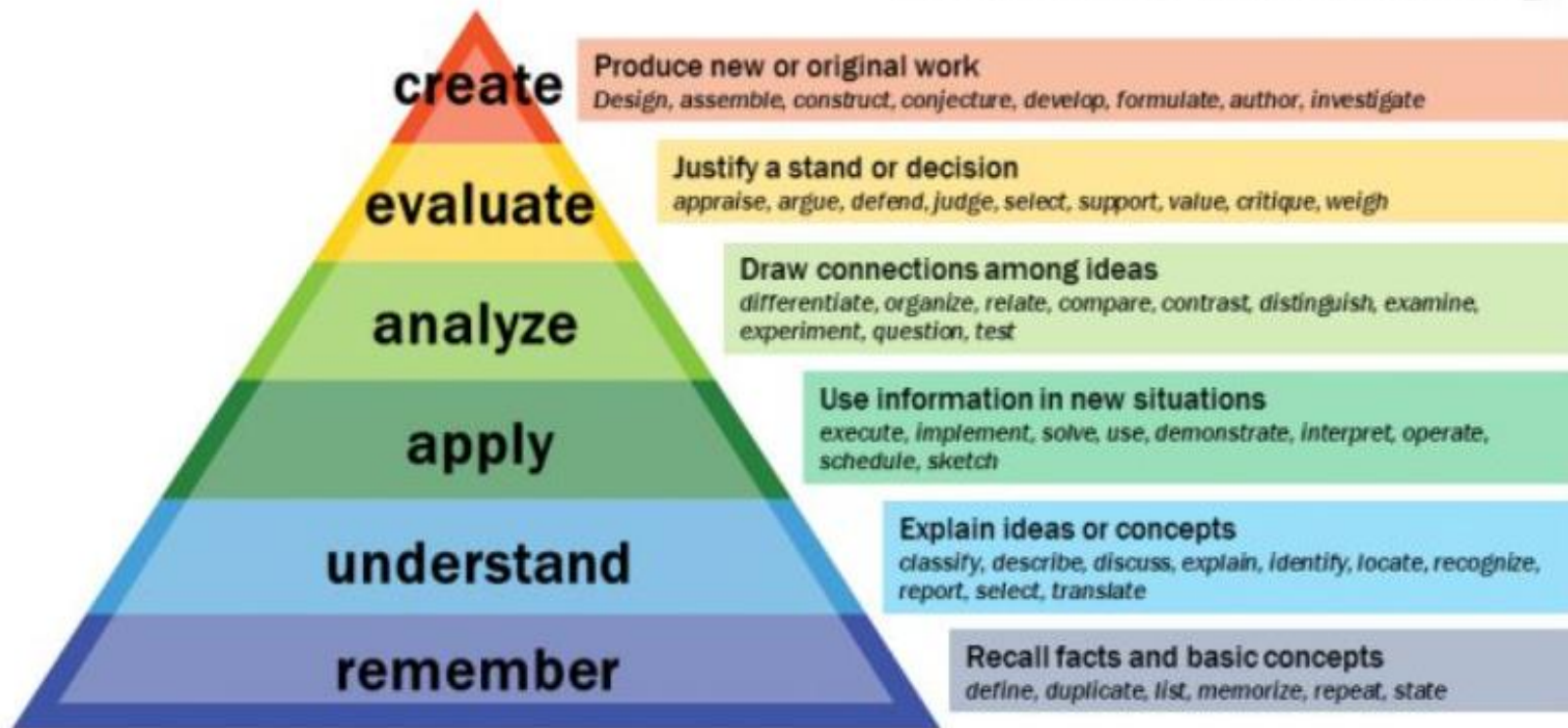
Incorporate dream opportunities

Design performance rewards

Discuss alternative pathways to achieving career goals

# What level of Bloom's are you teaching to?

## Bloom's Taxonomy



Vanderbilt University Center for Teaching

Anderson LW, Krathwohl DR, Bloom BS, Bloom BS (Benjamin S. *A Taxonomy for Learning, Teaching, and Assessing : a Revision of Bloom's Taxonomy of Educational Objectives* / Editors, Lorin W. Anderson, David Krathwohl ; Contributors, Peter W. Airasian ... [et Al.]. Complete ed. Longman; 2001.

# What teaching tools are you currently using?

## Available Teaching Tools Addressing Higher Level Blooms

### Understand & Apply



Active Self-Quizzing

[Study Stack](#)

[Quizlet](#)

### Apply/Analyze/Evaluate



In-class Simulations

Practice real scenarios

Research resources



**VCU**

School of Pharmacy  
Center for Compounding Practice  
and Research

# Applying Your Knowledge

## Using a case and showing progression

<i>3 minutes into the case</i>	<i>Patient begins to turn cyanotic around the lips and oxygen saturation slowly drops from 88% to 82% if oxygen is not administered via non-rebreather mask</i>	
<i>5 minutes into the case</i>	<i>BP decreases, HR increases, and patient begins to become altered if epinephrine is not administered</i>	
<i>Epinephrine is given by intramuscular injection (check-and-inject kit) for suspected anaphylaxis</i>	<i>Patients heart rate increases to 160s, respiratory rate improves to 22, and wheezing begins to improve; patient looks more comfortable with less tachypnea; work of breathing improves</i>	<i>Patient starts to speak in full sentences again without having to take deep breaths, says "Thank you! I'm beginning to feel much better."</i>

***As students work the case, you can progress it.***





# Group and Highlight Differences

Example: Review of Epinephrine

## Adult Patients

- Oxygen
- Auto-Injector or Check and Inject Method
- **Over 25 kg (55 lbs): 0.3 mg** of 1 mg in 1 mL epinephrine (1:1000) administered IM in lateral thighs
- If in 5 mins not resolved → potential second dose

## Pediatric Patients

- Oxygen
- Auto-Injector or Check and Inject Method
- **Under 25 kg (55 lbs): 0.15 mg** of 1 mg in 1 mL epinephrine (1:1000) administered IM in lateral thighs
- If in 5 mins not resolved → potential second dose



# Final Thoughts – Clinical Sites

Advisory Board

Market your program to clinical sites.

What makes your students different?

How are you preparing them differently?

Have expert knowledge about profession



# Final Thoughts - Preparation

Career focused and Realistic

Globally minded and altruistic

Choices to be made & Customizable

Social media natives

Digital



**VCU**

School of Pharmacy  
Center for Compounding Practice  
and Research

# Questions Anyone ...



©2018, VCU School of Pharmacy, CCPR