

Promote a Hybrid Learning Environment for Generation Z Students



National Assessment and Accreditation Council (NAAC),
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Promote a Hybrid Learning Environment for Generation Z Students

- Presented By
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Factors

- Education
- Teacher
- Technology

Education

- Education is not the name of any degree or certificate that can be shown to others as a proof.....But
- Education is the name of our attitude, actions, language, behaviour and personality with others in real life.

Teacher

- Creator,
- Preserver,
- Destroyer and
- Absolute Lord himself
- Salutations to that Teacher

Technology in Education

- Completely changing the pedagogy.
- Playing significant role in the education sector.
- Revolutionary changes in the field of education, especially in the area of teaching-learning.

Generation- Z Students

- Dynamic
- Techno friendly
- Specific
- Access the information as per their need and learn on their own pace
- More interested to learn through simulation, animation and 3D visualisation
- Comfortable with online learning platform
- Personalized learning facilities to compete with future technological advancements.

Hybrid learning trends

- Social Media in learning
- Massive Open Online Course (MOOC)
- Collaborative Learning Platform
- M-Learning and e-Learning
- Learning with AR and VR (Augmented and Virtual reality)
- Gamification in Learning

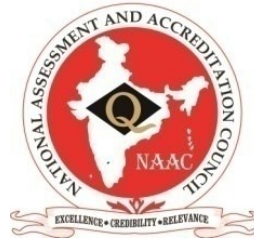
Personalised learning for gen-z

- Technology plays a crucial role in personalized learning. It is the way forward to transfer into a truly knowledge-based economy in the Global Village.
- The core philosophy of personalized learning recognizes that each student differs from the other in terms of intellect, abilities, pace of learning and interest.
- Personalized learning adapts the instruction methods, systems, tools and the overall environment to reach the educational goal of generation z students.

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Presented By

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Adviser

**National Assessment and Accreditation
Council (NAAC), Bengaluru, India**

NAAC Vision

"To make quality the defining element of higher education in India through a combination of self and external evaluation, promotion and sustenance initiatives".

NAAC Mission

- To arrange for periodic assessment and accreditation of institutions of higher education or units thereof, or specific academic programs or projects;
- To stimulate the academic environment for promotion of quality of teaching-learning and research in higher education institutions;
- To encourage self-evaluation, accountability autonomy and innovations in higher education;
- To undertake quality-related research studies, consultancy and training programs; and
- To collaborate with other stakeholders of higher education for quality evaluation, promotion and sustenance.

Value Framework

Guiding Elements for A&A Process

- Contributing to national development.
- Fostering global competencies among students.
- Inculcating value system among students.
- Promoting the use of technology.
- Quest for excellence.

The seven Criteria to serve as basis for assessment of HEIs are

1. Curricular Aspects
2. Teaching-Learning and Evaluation
3. Research, **Innovations** and Extension
4. Infrastructure and Learning Resources
5. Student Support and Progression
6. Governance, Leadership and Management
7. **Institutional Values** and Best Practices

UNITS OF ASSESSMENT

- Affiliated / Constituent colleges (UG Colleges, PG Colleges)
- Autonomous colleges
- Universities
- Health Science Universities
- Health Science Colleges (Medical, Dental, Nursing, Physiotherapy, Allied Health Sciences, Ayurveda, Yoga / Naturopathy, Unani, Siddha, Homeopathy)
- Dual mode Universities
- Open Universities
- Sanskrit Universities
- Teacher / Physical Education / Special Education Colleges

UNITS OF ASSESSMENT

- Institutional Accreditation only
- No Departmental Accreditation
- No Program Accreditation

**Promote a Hybrid Learning
Environment
for Generation Z Students**

Subtheme 2 is selected to prepare the proposal
*Advancing Generation Z Employability through New
Forms of Learning: quality assurance and recognition of
alternative credentials*

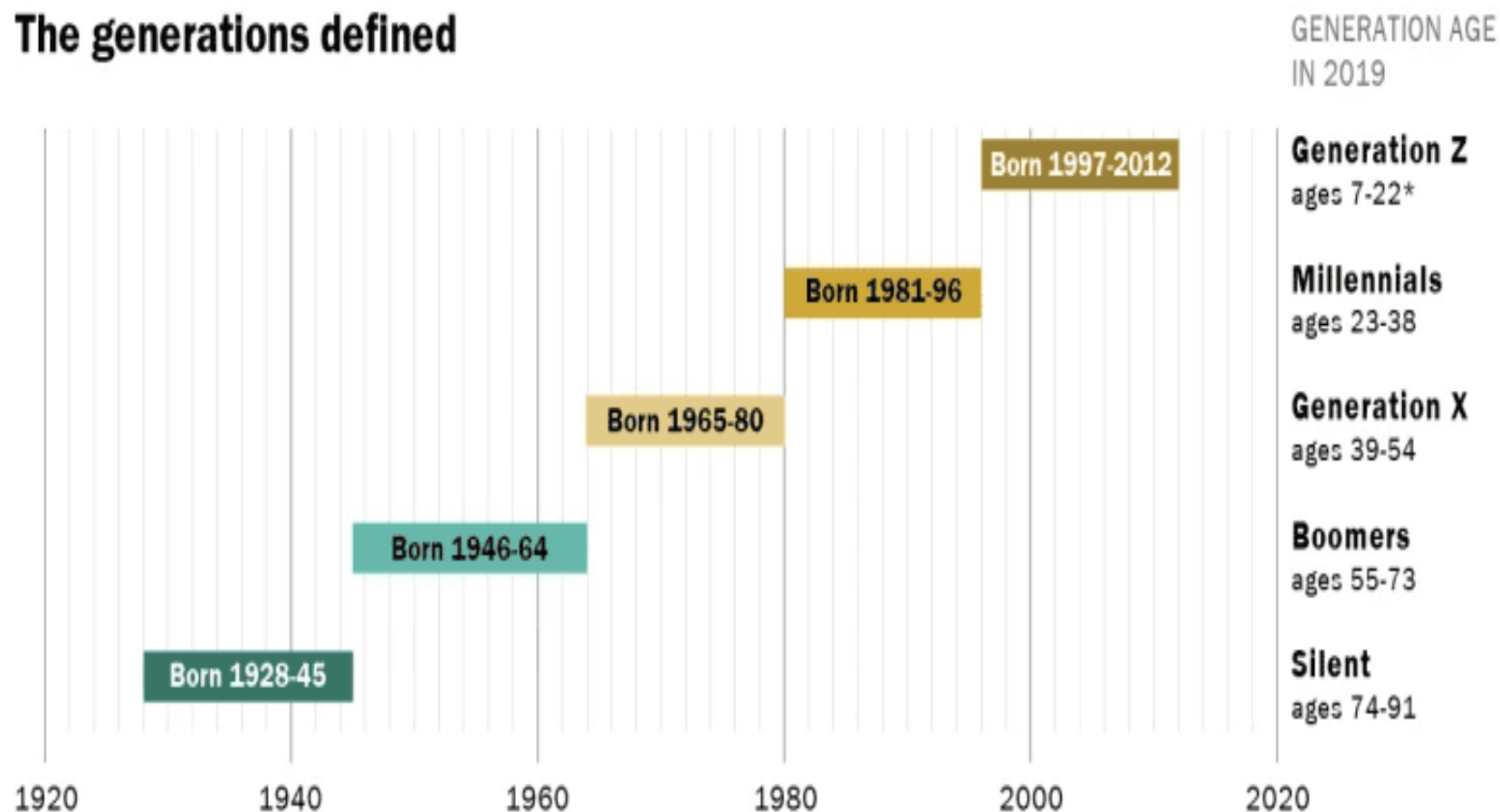
My Presentation . . .

- Introduction
- Generation Z
- Distinguishing Traits of Generation Z
- Engaging & Connecting with Generation Z
- Our Study

Introduction

- A new generation has arrived.
- Gen Z will soon surpass Millennials as the most populous generation on earth, with more than one-third of the world's population counting themselves Gen Zers.

The generations defined

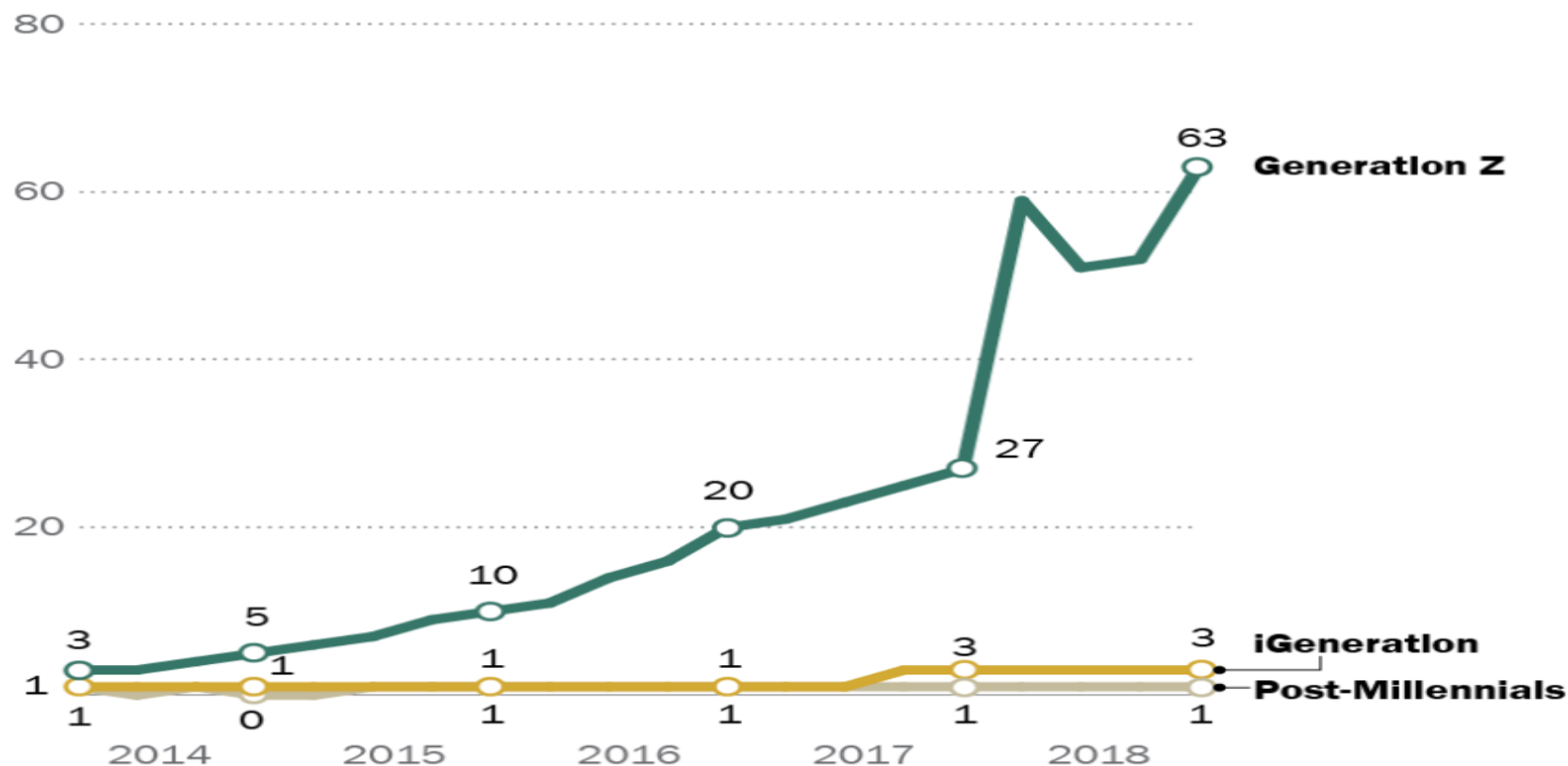


*No chronological endpoint has been set for this group. For this analysis, Generation Z is defined as those ages 7 to 22 in 2019.

PEW RESEARCH CENTER

Generation Z dominates online searches for information on the post-Millennial generation

Relative U.S. search volume of generation terms (Google Trends)



Note: Google Trends data are based on weekly query volume for a given query relative to the highest weekly volume of any queries being compared within the time period and geographic region examined. The maximum relative search volume in the period is 100. The trends above are quarterly averages of weekly relative search volume and include shortened versions of search terms (for example, "Generation Z" also includes "Gen Z"). Values do not reflect the absolute number of searches.

Source: Pew Research Center analysis of Google Trends (accessed Jan. 8, 2019).

Baby Boomers



14% have a written strategy for retirement

52% say they'll have to continue working after they retire

26% have a backup plan for retirement income if unable to work prior to planned retirement

36% expect social security to be their main source of income when they retire

41% are updating their skills so that they can continue working after they are 65

Generation X



Generation Y or Millenials



Generation Z



BABY BOOMER

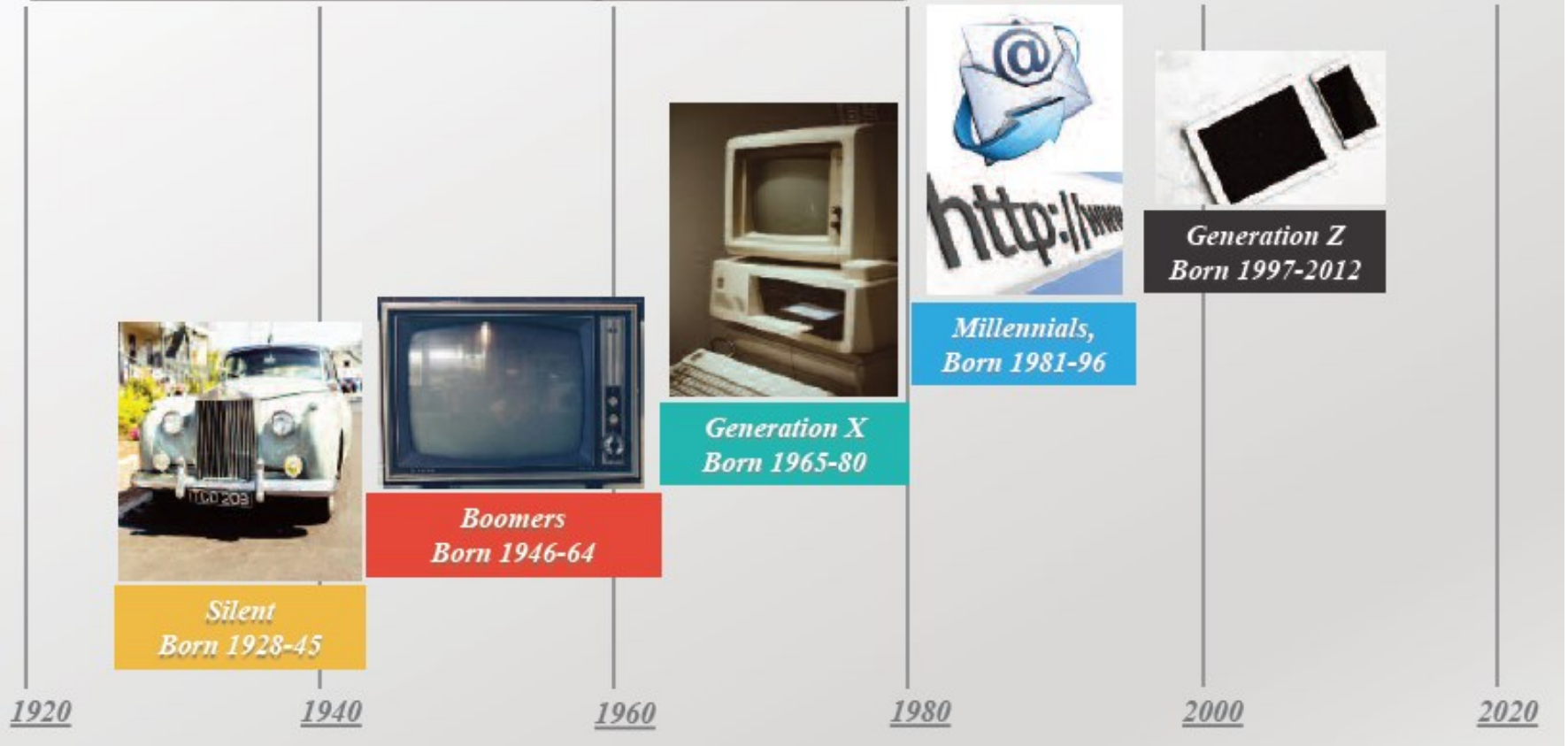
GEN X

GEN Y

GEN Z



Generations and Technological Advances



Let's Learn About Gen Z!

GENERATION Z

★ BORN 1995-2009 ★

ZEES GLOBAL GEN
GEN Z iGEN
DIGITAL INTEGRATORS
COTTON WOOL KIDS
CLICK 'N GO KIDS
UPAGERS SCREENAGERS
THE ZEDS BUBBLE WRAP GENERATION
TEENS TWEENS

Questions ??

- Generation Z is poised to transform the way we learn, buy, work, and live.
- How can our schools best prepare these individuals now, as students?
- And how can we take advantage of the opportunities their generation will usher in?

social
networking *for*
good




Who Is Generation Z?

- Generation Z goes by many nicknames. Here are just a few:
 - The Silent Generation
 - The Internet generation
 - The iGeneration
 - Generation Now
 - The Google Generation
- Gen Z may seem like they are over-stimulated and impatient. Consider for a second the challenges they recognize in their future.
- For their entire lives, they've heard about:
 - The dangers of global warming
 - They have been subjected to terror alerts of varying colors
 - Watched their parents weather the recent economic crisis


DON'T MISTAKE THEM FOR MILLENNIALS


GENERATION Z

- 5 screens
 - Communicate with images
 - Create things
 - Future-Focused
 - Realists
 - Want to work for success
- 

VS

MILLENNIALS

- 2 screens
 - Communicate with text
 - Share things
 - Focused on the Present
 - Optimists
 - Want to be discovered
- 



**ADEPT
RESEARCHERS**
GEN Z KNOWS HOW
TO SELF-EDUCATE
AND FIND
INFORMATION



30% **watch lessons online.**



20% **read textbooks on tablets.**



30% **work with classmates online.**



50% **use YouTube/Social Media
for research assignments.**

Differences between Millennials and 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*
- *technology fluent*

Generation Z

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

Gen Z'ers-

- Less validation expectations
- More independent
- More entrepreneurial
- More communicative
- More competitive
- More motivated by security
- Driven by career/financial goals

Are Kids Different Today?

- They are more competent with technology
- They have shifted decisively to digital forms of communication: texting rather than talking
- They multitask in all areas of their lives

The 21st Century Learner

- 71% report **simultaneous use of mobile with either internet or TV**
- 69% report having **3+ windows active in one online session**
- Expectations that life follows **video games**
- Re-classification of Cheating
- **Neuroplasticity theory** - Brain's ability to adapt to new situations
- Unprecedented abilities to collect and process information

They are less narcissistic than Millennials, who often referred to as the "selfie" generation. A survey of 11,000 Gen Z-ers, found 69% would rather be smarter than better looking.

They are digitally super-connected.

Gen Z-ers multitask across at least five screens every day.

They spend 41% of their time outside of school with digital devices.

They are career driven and entrepreneurial. Among high school students, 72% want to start a business and 61% would rather be an entrepreneur than an employee.

They communicate with speed. Technology has made it, so they can communicate rapidly, but that often comes at the expense of clarity.

They seek quality. The products themselves are more important to Generation Z than the brands that produce them, and they will change brands easily in search of higher quality.

TIME
is more
valuable

EXPECTATIONS
of convenience
matter

The demand
for
MEANING
intensifies

Hunger for
OPTIONS
grows

The sense of
ENTITLEMENT
increases

Need for
**SPEED &
SPACE**
goes up

Seven Distinguishing Traits of Generation Z





Protected



A young girl with dark hair and striking blue eyes is the central focus, looking directly at the camera with a slight smile. She is wearing a white sleeveless top. In the background, another child in a yellow shirt is visible, holding a pencil over a piece of paper, suggesting a classroom or school environment. The scene is brightly lit with soft, natural light.

Social Advocates

A close-up portrait of a young man with a thoughtful expression, looking slightly to the right. The image is overlaid with a semi-transparent white box containing the word "Inclusive" in a bold, red, sans-serif font. The background is a soft, out-of-focus light gray.

Inclusive



Accomplished



Pressured

Engaging & Connecting with Generation Z

How should we connect with Generation Z?

Communicate

Communication with Generation Z should be visual and aimed towards diverse audiences.

Short

Keep communication/content short. Think "stackable content".

Feed Curiosity

Empower Generation Z by providing them control over choices of preference and settings.



Connect

Connect Generation Z to technology of various types.

Inspire

Generation Z needs to be inspired; reacting best when given social causes to rally behind.

Educate

Generation Z wants to build their expertise.

Research-Based Methods

Gen Z prefer a **variety of active learning methods.**

Many of the components of their ideal learning environment - **less lecture, use of multimedia, collaborating with peers** - are some of the same techniques research has shown to be effective.

Relevance

Our role **shifting from disseminating information to helping apply the information.**

One of the greatest challenges for us is to connect content to the current culture and **make learning outcomes and activities relevant.**

Rational

Gen Z was raised in a non-authoritarian manner and will comply with rules and policies when we provide them with a rationale.

Relaxed

- Gen Z prefers a **less formal learning environment**
- Gen Z want to be able to **informally interact** with adults and other youth.

Rapport

Gen Z is extremely relational.

They are used to having the adults in their lives show great interest in them.

They are more willing to pursue learning outcomes when we connect with them on a personal level.

How to Motivate These Students...

- **Create high-intensity relationships:** They react better to highly defined, small workgroups that have a strong peer leader. There must be an easy to identify chain of command when it comes to management
- **Generation Z students may need more training, especially in the area of interpersonal and communication skills. Focus on behaviors--show them the right skills and communication techniques.**
- **Provide lots of awards:** This generation has grown up used to rewards for even the smallest accomplishment. To encourage performance and growth, offer periodical rewards and continue redesigning the rewards to meet the changing expectations.
- **Generation Z students thrive on opportunity.** If you want to keep them interested and motivated, show them a dream opportunity is possible.

The Generations Currently Touring Your Campus

No matter what you call them (iGeneration, Digital Natives, Centennials),

you must know that the next generation of prospective students are creeping up on us.

• Generation Z:

TEACHING AND RELATING TO THE
NEXT GENERATION

Introductory Thoughts

- ▶ Do you teach first-year students differently than other students?
 - ▶ If so, how? Why?

Generation

- ▶ Have you seen a difference in students entering the University?
 - Z:
 - ▶ If so, what are those differences?
 - ▶ When have you see a change?

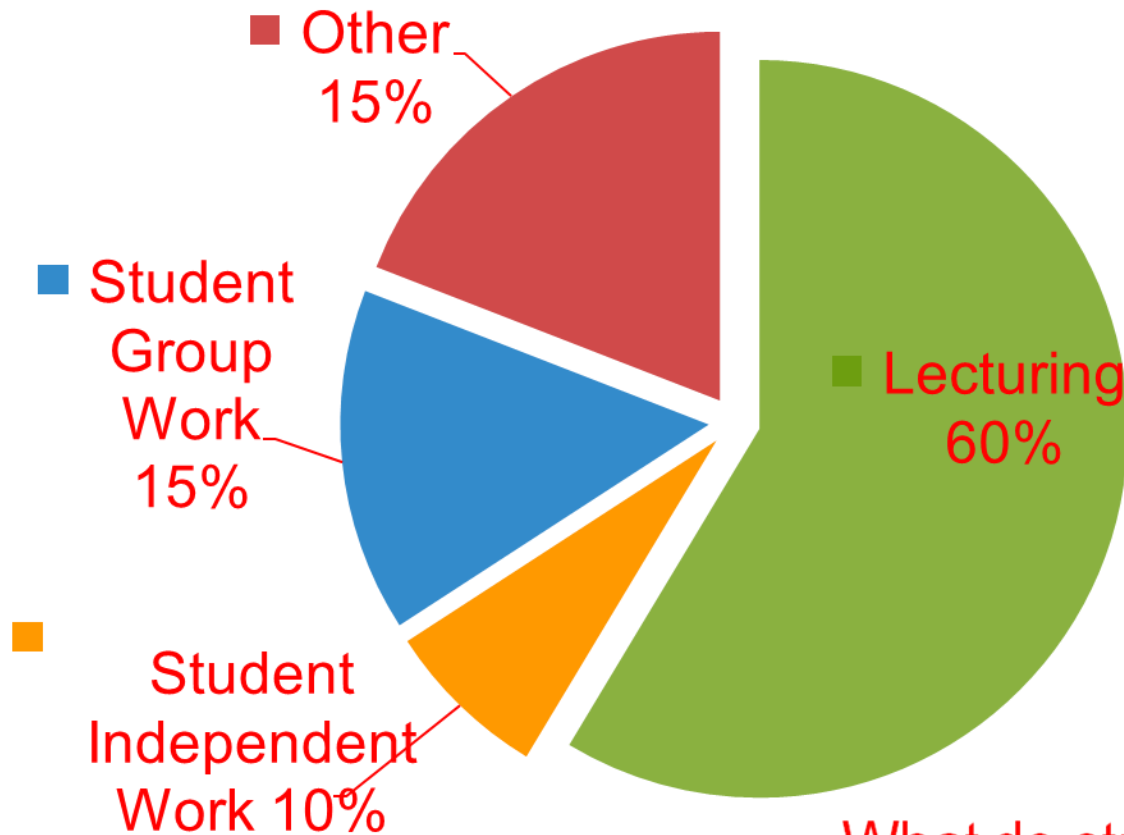
Our Students

- Surfers and scanners - not readers and digesters
- Expect constant and immediate feedback
- Want directness over subtlety
- Technologically savvy but crave personal contact
- Always hurried - know what they want
- Want to learn

Our Faculty

- Healthiest and wealthiest of generations to date
- Redefine traditional values
- Hard-working
- Passionate (can change the world)
- Believe in hierarchy - may find it difficult to adapt to more flexible arrangements

How Faculty Spend In-Class Time



What do students retain?

Lecturing

- Research has shown that it is impossible for students to absorb all of the information in a lecture (limited short term memory)
- We need every student to learn - not just a few
- More effective approach - get students actively thinking and learning

Student's Expectations

- Want **solid knowledge base** and real-world applications
- Want **clear and organized** presentation of material
- Want to be **stimulated, active and participatory**
- Want to know why (how does this activity, reading connect to my future career?)
- Want faculty to be **enthusiastic**, helpful and engaged
- Expect "**customer service**"
- Want face-to-face contact but accept boundaries

Faculty's Challenges

- Time
 - Keeping up with their field
 - Dealing with students with varied backgrounds and skill levels

Strategies

- We must understand learners
- Accept differences among students and between students and faculty
- Engage students in setting goals and expectations
- Be flexible, creative and try not to be surprised by anything that happens in the classroom!

Strategies

- Problem-based learning
- Student-centered instruction
(Adult learning/Adult education)
- Competency-based (outcomes-based)
instruction



Student-Centered Learning

- Substitute **active learning** projects and experiences for lectures
- Hold students responsible for material not yet covered
- Assign **open-ended questions** and problems
- Use **simulations**, **role-playing**
- Use self-paced or **cooperative (team) learning**

Student Challenges

- Students feel that teachers have changed the rules
 - Teachers not teaching
 - Paying tuition for what?
- **Team based learning** - some do not want to work in groups
 - Do all members contribute equally?
 - Too difficult to schedule, coordinate
 - Some dominate, others hide

Faculty Challenges



- Fear - stop lecturing & lose control
- Won't cover all of the material
- Will students do the work?
- Fair assessment of group and team work
- Repercussions of student dissatisfaction (lower ratings, etc)

Competencies

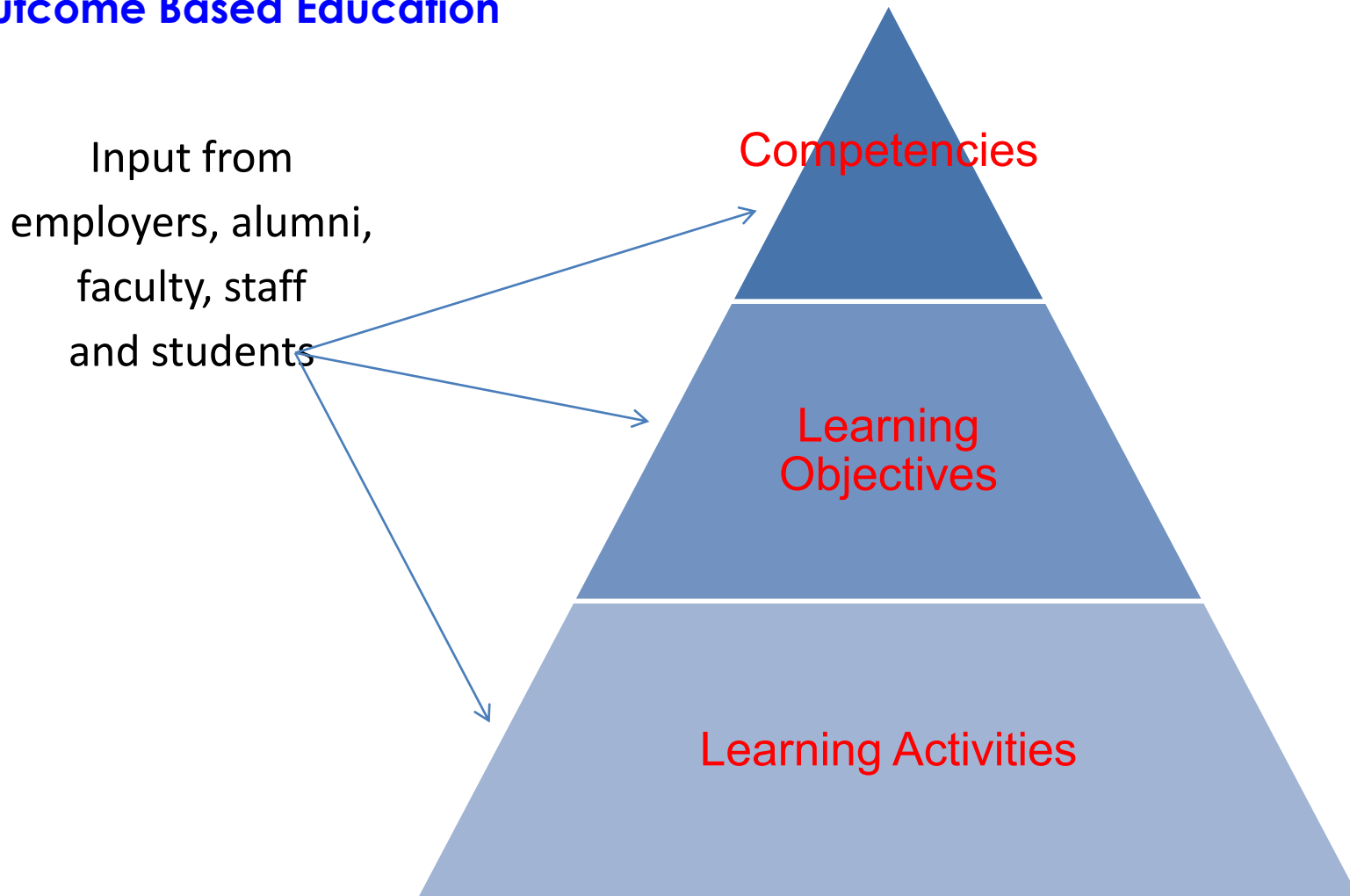
- Defined by the needs of the workforce and are the essential **knowledge, skills and attitudes** (KSA's) required to achieve an acceptable level of performance
- Achieved through **formal training in the classroom and through hands-on field work** (e.g., capstone experience, practicum)

Competencies

- Each competency is supported by multiple learning objectives.
- Learning objectives for the core competencies generally fall in lower-middle cognitive domains of Bloom's Taxonomy (knowledge, comprehension, application, analysis)
- Concentration-specific and cross-cutting (or interdisciplinary) objectives are more complex and include synthesis and evaluation

Competencies

Outcome Based Education



Gen Z

- Stays connected all the time.
- Adopts technology at high levels
- Visual perspective.
- technology-enhanced learning

Are We Ready to Teach
Generation Z?

Are We Ready to Teach Generation Z?

- Most Generation Z students expect all teaching and learning resources to be available on online portals,
- allowing access to course materials on their electronic devices anytime, anywhere.
- In order to meet the educational demands of Generation Z,
 - universities and colleges must equip their facilities with digital textbooks, digital projectors, interactive whiteboards, and associated mobile device apps.

- The need to use appropriate teaching method cannot be overemphasized. The need is succinctly captured in the study by

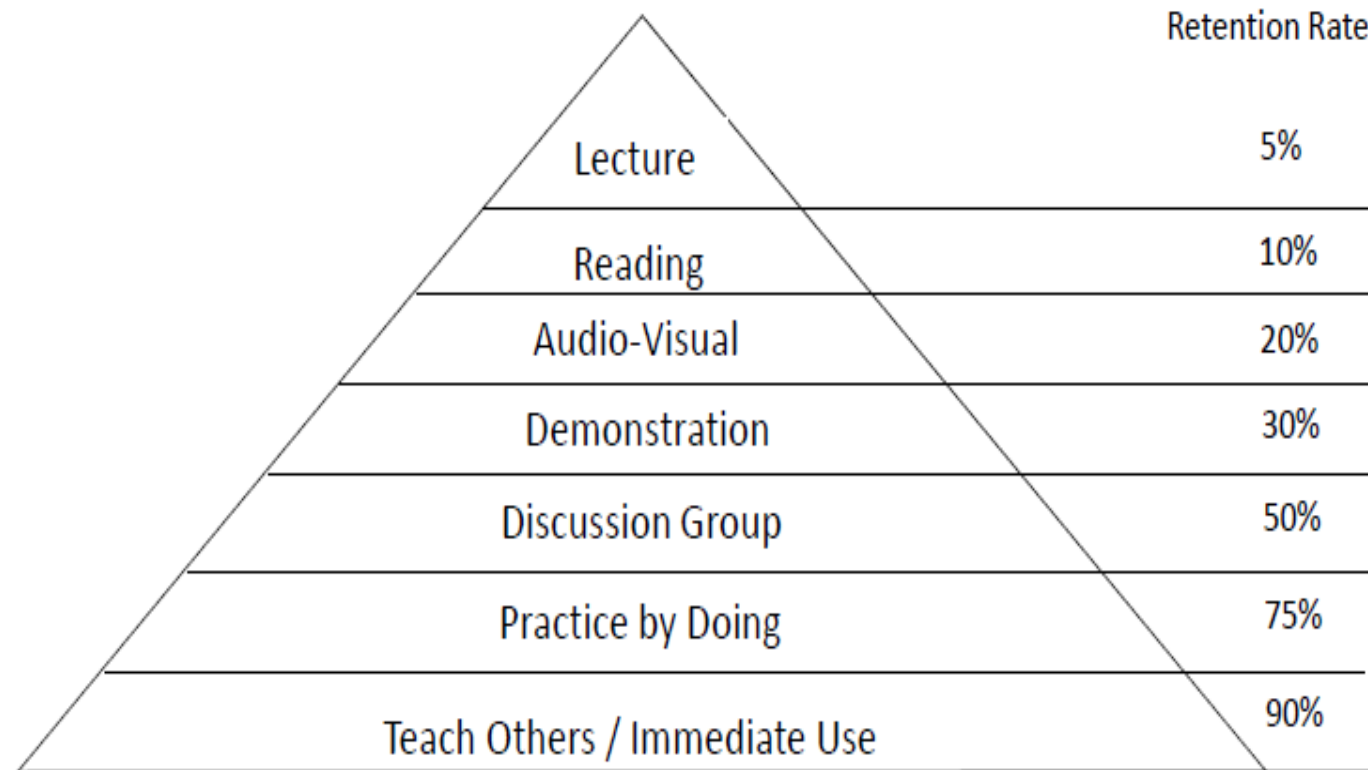


Fig. 2: Teaching Methods and Retention Rate (Singhal et al; 1997)

Our Study

- Study was conducted among the Engineering students from Computer Science & Engineering Discipline.
- Participants were from final year engineering students.
- Three Hundred students from the researcher university were participated in the study.

Objectives of learner centered approach

The objectives are tri-fold:

1. To engage the generation Z students in enhancing the competency and skills or graduate attributes.
2. To identify the different strategies for teaching and learning such as activity based strategies, technology based applications, inquiry and research models and thinking skills strategies.
3. To assess the challenges faced by digital immigrant teachers in practicing varied teaching and learning strategies.

Mode of Survey - Face to face and online

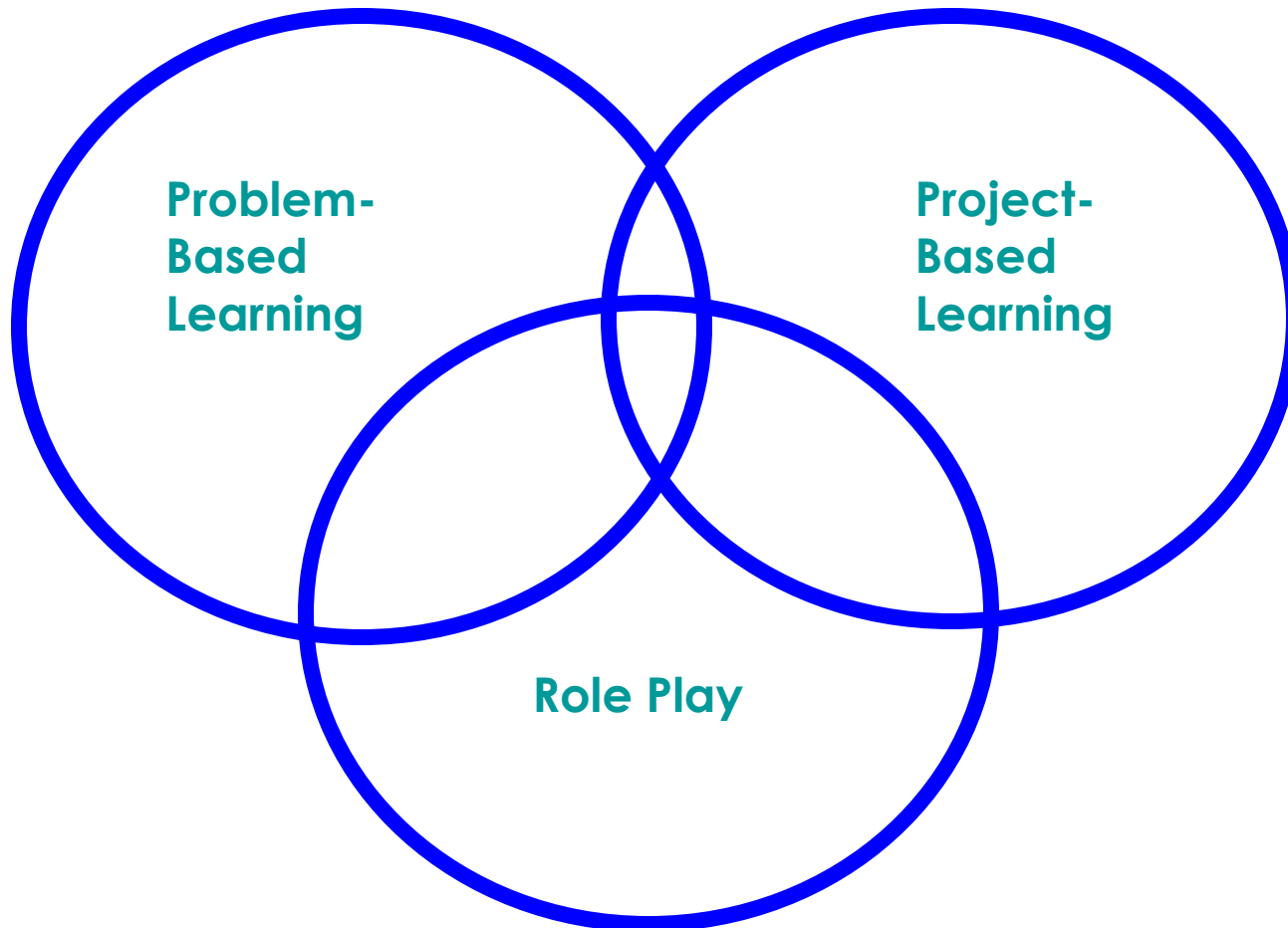
Methodology

Hybrid Learning Environment

To enhance the students' knowledge, competency and can engage them well using the learning forms

- Problem-Based Learning
- Project-Based Learning
- Role Play

PBL: Problem? Project? Performance? Role Play ?



Problem-based learning and project-based learning

- **Problem-based learning** gives more emphasis on knowledge acquisition and project-based learning focuses on the final results and gives emphasis on application of the knowledge acquired.
- In **problem-based method** the teacher or facilitator scaffolds student learning through the use of questioning strategies.

Problem-Based Learning

- Students are placed in the active role of problem-solvers confronted with situations like the kind of problems they are likely to encounter in the future.
- Develops in learners, thinking strategies, effective problem solving skills, self-directed learning, effective collaboration skills and intrinsic motivation.
- In a large class, it is difficult to adopt problem-based learning alone; it should be used in conjunction with team-based learning.
- This approach entails that within a group different variables are given to each team member.
- This enables each member to work independently but later, they get together to collate their results to observe the results.

Definition of PBL

An instructional **student-centered approach** which uses carefully constructed clinical problems as a context for students to:

- define their learning needs,
- conduct self-directed enquiry,
- integrate theory and practice, and
- apply knowledge and skills to develop a solution to a defined problem.

Problem-based learning and project-based learning

- On the other hand, Project-based learning is a discovery-based learning method intended to guide students to become experts in a field of study.
- This helps them to be capable of identifying the problems and analyzing to get the solutions.
- Even though the benefits of these two methods are reported by several researchers, the practice is still far from being generally practiced in classrooms.

How do I get started with PBL?

Develop problems that:

- Capture students' interest by relating to real-world issues.
- Draw on students' previous learning and experience.
- Integrate content objectives with problem-solving skills.
- Require a cooperative, multi-staged method to solve.
- Necessitate that students do some independent research to gather all information relevant to the problem.

Design assessment tools that:

- Account for *process* (e.g. research, collaboration) as well as content skills.
- Are closely tied to course learning objectives.
- Balance individual and group performance.

Why do Project-Based Learning?

Your ideas....

Research suggests:

- 1) Increases long-term retention
- 2) Better engages students and teachers
- 3) Develops critical thinking skills

"Project-based learning increases long-term retention, improves problem-solving and collaboration skills, and improves students' attitudes towards learning."

- Strobel, 2009

The Conditions for PBL

- A strong teacher-student **relationship**
- **Rigorous** standards
- Opportunity for student involvement to insure **relevance**

Under these conditions you will also promote **resiliency** in students and help build a culture of engagement in your classroom and school.

PBL builds 21st Century Skills!

Ways of thinking. Creativity, critical thinking, problem-solving, decision-making and learning

Ways of working. Communication and collaboration

Tools for working. Information and communications technology and information literacy

Skills for living in the world. Citizenship, life and career, and personal and social responsibility

Role play

- Role play helps the students in developing **teamwork and communication skills**.
- Role-play is a case-based method which helps in development of **personal and interpersonal skills**.
- Role play helps the students to understand difficult engineering and technological concepts easily.
- It promotes **interactive learning** and **inter-group learning**.
- Usually the role play in teaching is conducted to **enhance learning outcomes** among the students.
- The teacher however, needs to think critically and creatively and establish a classroom environment that is conducive to thinking and creating.

Role Play Strengths

- Develop Teamwork
- Interpersonal Skills
- Communication skills
- Conflict resolution
- Developing insights
- Group decision making

Role Survey - Survey

- (The presenter has conducted a role play by selecting a unit from the subject *Computer Architecture*, using *6 students to a group of 60 students* and found that their learning level pertaining to the concepts covered under the unit was more than 95 %.)
- 6 Students Participated in Roleplay
- Remaining students observing the play

Creation of proper learning environment

- Specific IT applications that could be suitable for Generation Z are as follows:
- a variety of **digital resources** that provide a number of options,
- integration of **modern virtual learning platforms** ensuring various forms of communication and
- interaction into **educational environment**,
- use of **collaborative work tools**, use of a **variety of latest apps**

Our Study ...

Study has been conducted

- To evaluate and analyze the Multiple intelligence of the learner's skills through different tests.
- To know the present students perceptions in term of their level of confidence for successful and joyful learning without any difficulties faced.

- The teachers were asked to practice Problem based , project based and role-play approaches in the classroom for a semester.

Innovative about the session

- Conducted a **cross-sectional study** and collected the data from the teachers who have practiced the said methods .
- Presenter possesses a rich experience on behavioral and learning pattern of digital natives.
- To share merits and outcomes observed during the research study conducted on the proposed area while practicing the said methods.
- Pre and post outcomes results, challenges and issues to be discussed

Involvement of the Audience

The session is composed of three levels.

- First, a **brainstorming** session was conducted to create awareness on the learning patterns of Generation Z students.
- Second, the methods practiced by the presenter and its outcomes was shown via **audio-visual aid**.
- This threw some light on the implementation of appropriate evaluation strategies and **measuring the learning outcomes**,
- inspiring learners to accept change and ownership, generating resources and teacher support material based on **Bloom's taxonomy, Gardner's multiple intelligence and other contemporary pedagogic perspectives**.
- At the end of the session, a **quiz** was conducted among the audience to assess the learning level

Outcomes and benefits to participants

A. Digital Native students

B. Digital Immigrant teachers and
Institutions

Outcomes and benefits to participants

A. Digital Native students

- Enables the students in gaining necessitate knowledge, skills and competencies.
- Enhances the High-order thinking skills of Generation Z students.
- Prepares the digital native students to be fit for employability.

Outcomes and benefits to participants

B. Digital Immigrant teachers and Institutions

The outcomes are as follows:

- Useful in improving the quality of classroom teaching and learning methods.
- Helpful to the institutions to enhance the students' learning experiences and thus work towards improving the pedagogical practices.
- The institutions will be able to identify how well the academic learning experiences and teaching and learning practices prepare the students to acquire the necessary skills and competencies.



*Thank
You*

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NAAC