KOREA REVIEW OF INTERNATIONAL STUDIES
ISSN - 1226-4741

INTEGRATING LEARNING CONTEXT AND CHARACTERISTICS OF GEN Z & GEN α

Dr. S Kumaraperumal

Associate Professor, Rajalakshmi School of Business, Kuthambakkam post, Chennai. Email: klenzmaark@gmail.com

Dr. M Pradeepa

Assistant Professor (Sr), School of Information Technology and Engineering, Vellore Institute of Technology, Vellore. Email: Pradeepa.m@vit.ac.in

Dr. M Karthikeyan

Assistant Professor, Department of Commerce and Business Administration, Vel Tech Rangarajan Dr. Sagunthala R&D Institute of Science and Technology, Avadi, Chennai. Email: mvkarthikwin@gmail.com

Dr. A Ravisankar

Professor, Department of Management studies, Erode Sengunthar Engineering College-Autonomous, Erode. Email: a.ravisankaresec@gmail.com

Abstract

A major source of knowledge is Education; however, the changes in Information and Communication Technology (ICT) induced high levels of complexity in the education industry and rapid changes in learners' attitudes and explore more alternatives in pedagogy. Changes in economic structure, rapid advances in technology, and exposure to the advancements alter the values, ethics, attitude, activities, and other behaviours of each cohort that force changes in all aspects of life that includes education. For this study, the cohort of Gen Z and Gen α is considered due to their active involvement in the educational context.

Keywords: *Gen Z, Gen α, Generation cohort, Information and Communication Technology*

1. INTRODUCTION

As quoted by Alvin Toffler (1990), Learning becomes a lifelong and consistent updating of skills and knowledge that are vital in the knowledge economy. A major source of knowledge is Education; however, the changes in Information and Communication Technology (ICT) induced high levels of complexity in the education industry and rapid changes in learners' attitudes and explore more alternatives in pedagogy.

Scholars discussed generational grouping with different names based on core attributes that dominated during the period. A cohort of people who were born from the year 1925 to1942 labelled as Silent (Strauss & Howe 1991), baby boomers from the year 1946 to 1964 (Timmermann 2007), Gen Xers from the year 1960 to 1980 (Zemke et al. 2000), Generation Y or Millennial from the year 1978 to 1989 (Martin & Tulgan 2006; Hernandez-de-Menendez et al. 2020) Gen Z from the year 1994 to 2010 (Bohlich & Axmann 2020) and Gen α from the year 2010 to till date (Bencksik, 2016).

Changes in economic structure, rapid advances in technology, and exposure to the advancements alter the values, ethics, attitude, activities, and other behaviours of each cohort that force changes in all aspects of life that includes education. For this study, the cohort of Gen Z and Gen Alpha (α) is considered due to their active involvement in educational service in the current and near future as a student, parents, teachers, and educational service providers.

2. CONTEXT AND CHARACTERISTICS OF DIFFERENT COHORTS

Gen Z is quicker in getting information through their parallel processing and multi-tasking skills. They intend to look at a picture than text and they work better when are networked. They bloom when instant gratification and frequent rewards and prefer random access and games to systematic work. Gen Z habituate to the twitch speed, multi-tasking, random access, graphic first, active, connected, fun, fantasy, quick-payoff world of their video games and internet (Prensky 2001). Rothman (2016) cites some of the scholars who claim that structure of the brain is different to Gen Z from earlier generations of learners. The claim is not genetic aspects but the exploration of the brain in knowledge acquisition and skill development due to changes in a learning context. The exposure of the brain is highly sophisticated, complex and more intense visual imagery. This leads to more exposure right brain and more practice and development for the brain part which is responsible for visual adaptations. Hence, the preferred mode of learning is more inclined towards visual learning than lecture and discussion (auditory).

Gen α, the elder of this cohort are entering into teens, and a majority are tween (aged between 8-12) as mentioned by McCrindle (2020). This cohort is experiencing high-level screen-based living that includes entertainment, interaction, purchase, education, leisure, medicine, sports and financial transaction. Gen α is experienced from an early stage of their life and without screen exposure their life will be under lived. As McCraindle (2020) described they are “Screen-agers” and they are interacting with advanced devices before they start talking. Gen α is app-based life, longer screen time, short attention span and higher digital knowledge, gender equality and long learning span, and delayed earning power due to longer stay in education (McCrindle, 2020). A combination of these factors drives the formation of Gen α Characteristics.

2.1 Learning environment

The learning environment consists of many factors and interaction among the factors leads to a higher level of complexity in understanding the influence of individual factors. However, changes in factors are very much dynamic and any findings may not be considered the best fit for every situation. Key factors for effective learning may be instructor factors, student and parent factors, educational service provider factors, and other factors (Grasha 1996). Instructor's factors consist of gender, personality, educational competence, and motivating factors, etc…, students' factors consist of learning style, family support, peer group, learning time, and personality, etc…, parents' factors consist of the level of involvement, experience, family and friends influence, size of family, income level, educational qualification, etc…, service providers’ factors program, leadership, structure, legal aspects, physical facility, brand image, competition, etc…, others may consist of culture, technology, market requirement, economic, globalization, etc….

Enormous changes in a cohort of generations’ values, beliefs, and decision-making style with a structural understanding of the human brain and its link with a relevant functional area of learning

and complex environmental aspects forced people to worry about the effective pedagogical approach.

Gen Z and Gen α cohorts are entering the workforce, but a majority of the cohort members are still obtaining their knowledge in educational institutes ranging from higher education to pre-kindergarten. They are confident, multitasking, spontaneous, creative, energetic restless, networking, and can-do attitude.

According to Sweeney (2006), current students strongly prefer learning by doing by interacting, multiplayer gaming, and social networks that have been possible through Information and Communication Technology (ICT) which provides a platform for trial and error learning and they understood when, where, and how to collaborate with other people more effectively. Multitasking enables an increase in the speed of learning in turn improves their competency in handling a complex situation that possesses multifactor involvement and interdependencies and provides them more time for other tasks. Gen Z develop more network which has been facilitated by ICT even when they are not connected to the internet. The information have been shared, once they get into a connection. They get those new network members and information and remain in constant touch wherever and whenever and communicate more often using instantaneous messaging, texting, and mobile as well as more traditional communication channels and also increase the speed by shorthand, coding or abbreviation. Education providers can fit these multitasking, networking, tech adaptable skills, and other factors in their strategy crafting and execution to ease the learning.

Human brain structure information provides many options to educational providers to use a variety of techniques and tools in the teaching-learning process. UNESCO report highlights different teaching and learning techniques and their fortunate things. Some of the techniques are small group teaching/discussion, seminars and tutorials, computer-based learning, problem-based learning, case-based learning, Preparing for teaching, Teaching and learning in groups, Explaining, Group dynamics, Managing the group, and Lectures. The findings of Murphy & Lammers (2002) confirm that lecturing continues as the most ubiquitous technique; however, the level of usage is reducing. The reasons may be a wide range of research and discussion on other techniques. Lecturing can be as effective or as ineffective as other techniques. In lecturing, transmitting knowledge and correct solutions are paramount that the learning is trainer-designed and trainer-led where the instructor is proverbial and stimulates the left brain more often than the right brain which is encouraged by exam-based evaluation system which is the single dimensional and testing limited ability of the student that is not a good fit for Gen Z' characters.

However, in generative or adaptive learning teacher act as a facilitator of active learning by students who seek out solutions for themselves. Through this process, they link their existing knowledge with emerging ideas and create new knowledge where students are not applying knowledge in a structured way. In this technique, both the left and right sides of the brain are engaged in the learning process. The speed and variety of learning have multiplied by new technologies and shared with the Gen Z network and critically analyzed by a network peer group from a multidimensional angle and provide greater value and satisfaction to students.

Fenn et al. (2008) regard public Virtual Worlds as a trend in information technology that will become increasingly influential over the next decade. Currently, Web 2.0 progressed from the novel World Wide Web; Virtual Worlds widen many aspects of Web 2.0 into a 3D Web-based environment.

As a technology that is diverse from other Web-based functions, one attractive definition of Virtual Worlds is online environments that have game-like engagement and social media functionality without rules. The rich, 3D virtual environment that Second Life offers has a built-in programming language (Linden Scripting Language, LSL) that offers a stimulating and intrinsically motivating context for students to learn to program.

Second Life enhances the learning occurrence by providing more lifelike and industry-applicable learning. The conduit into 'real life' understanding is made much smaller by way of virtual experience. Virtual in this perception is not to be confused with imitation. By the very nature of Second Life's throwing yourself into the environment, the variables and possibilities available make it more than a replicated environment. In Second Life, complex parameters and variables exist similar to those in real-life contexts. Virtual Worlds are of particular pedagogical relevance because in such an environment students are the potential to discover, contribute, realize new knowledge, and develop industry-applicable skills. (Dreher et al. 2009).

Even though the majority of the research articles and data collections are from Western countries, the suitability of analysis may not look like as best fit for the Indian scenario. However, globalization and ICT reduced the gap, particularly for Gen Z and Gen α. Educational stakeholders who are striving for pedagogical excellence need to craft their strategies in consideration of changing elements of environmental factors, changes in students' values, styles, behaviour, personalities, and interest and providing a good learning environment can maximize their monetary and non-monetary benefits and upgrade the society that expects multidimensional approach for solving the highly complex situations. As said by Daniel Pink “We need to teach our kids for their futures... not our pasts."

2.2 ICT and Education

Western countries' emergence as knowledge economy from industrial economy (Laudon & Laudon 2001), globalization, and dynamic changes in ICT facilitate the business process integration with ICT in all activities of the business irrespective of business nature, size, geographic location, culture, etc... Many industries are won over the competition by adopting latest information and communication technology. When every industry is leveraging from dramatic advancement of ICT, the capacity of the virtual world is under-utilized by educational service providers (Dreher et al. 2009). As said by Dr John Rose (Cited in Business line 2005) a staff member of UNESCO, ICT has and will continue to be, an essential tool for the improvement of education. He also highlighted the success of higher education through Web-based teaching. Currently, many universities in India and other countries are using ICT to provide high-quality education, either entirely virtually or in combination with face-to-face teaching, either on the Internet or through local campus intranets (Business Line 2005).

"Digital native" students, the recent generations students whose development is characterized by engagement in digital media, and communications technology (Prensky 2001; Palfrey & Gasser 2008) and keep on side by side with current technological advancements such as Virtual Worlds due to their inherent interest in the field, but also because doing so enhances their employable skills. Dreher et al. (2009) provide other promising Virtual Worlds such as two beta worlds for use in educational background, Project Wonderland and Croquet (The Croquet Consortium). They regard that Virtual Worlds increase the possible pedagogical applications beyond Web 2.0, because they provide new communication channels, opportunities for collaboration, and new and empowering

technology with which to discover practical, engaging, and innovative pedagogical applications, not only in distance learning environments but also in normal regular classrooms.

The constructionist educational method claims that when students as active participants in the learning process with teachers as facilitators, and emphasizes the utility of a socially demonstrable learning process enhances the outcomes which are publicly viewable and are shared/communicated with others (Ackermann 2004). To implement this approach, Driscoli (2000) provided some prime guidelines such as

(a) The learning situation must be personally significant to the lives and prospects of the individual students;

(b) The learning is supposed to be explorative;

(c) The student is supposed to be given a chance to both take part in groups and exhibit his or her knowledge independently; and

(d) The instructor should steer and make easy learning without spoon-feeding students.

These guidelines can be effectively implemented when integrating ICT into education where the sky is the limit to leverage the benefits that go beyond the classroom walls and stimulate students to equip with interest and involvement.

3. CONCLUSION

The future of learning, the context of learning, the attitude of learners and the diversity of learning models are encountering huge changes. Trilling & Fadel (2009) expects three prime changes in learning to match the 21st-century requirements. The first requirement is learning and innovation skills that include proficiency in diverse competence, mastering critical thinking and problem-solving, collaborative and disseminating skills and novel thinking and innovation. The second requirement is digital literacy and the third requirement is career and life skills including leadership, initiative, sociocultural flexibility and adaptability. According to the emerging requirements, the classrooms will change significantly.

The educational scenario will be radically changed by Virtual Reality (VR) & Augmented Reality (AR), assignments and evaluations need to be changed to flexible and diverse learning styles and leverage the opportunities of different Learning Management Sytems (LMS). (Dunwill, 2016). A paradigm shift in learning is expected due to advanced technologies like VR &AR, Artificial Intelligence and 3D Simulation.

To match the change in curriculum, continuous updating of skills and knowledge by the learners and facilitators, access to resources, assessment flexibility and adaptability are vital. Learners are no longer dependent on providers to gain knowledge and competencies. The design of the educational programs is to provide what the learner should know instead of what the teacher knows. (Escotet, M. Á., 2023). The enrichment of data availability and the advancement of search engines customize the learners to explore, construct, apply, and disseminate learning possibilities. Facilitating these exploring ways of learning is vital for educational providers' sustainability in the market.

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