

# How to Develop Learning Styles to Encourage Gen Zers in Their Academic Performance and Workforce

Christine Paulina<sup>1</sup>, Endang Ernawati<sup>2\*</sup>

<sup>1,2</sup> Language Center, Faculty of Humanities,  
Bina Nusantara University  
Jakarta 11480, Indonesia  
christine\_paulina@binus.ac.id; ernaw@binus.edu;

\*Correspondence: ernaw@binus.edu

## ABSTRACT

*The research aimed to find out the support of information communication and technology (ICT) to encourage generation Z (Gen Zers) in their learning style in academic environment as well as a preparation for their competences to enter the workforce. The research applied a qualitative method with literature study style. The studied literature consisted of primary sources such as articles, scientific papers, and the secondary sources, such as books, and some other internet sources. The literatures were comprehended by reading, understanding, analyzing, and synthesizing them to produce new findings in the form of information from various studied sources. Data analysis was done by using content analysis method by selecting, comparing, and combining various information so that the relevant knowledge was found to clarify the learning style needed by generation Z. The results indicate that generation Z learners like to use social media in the learning process and to interact with friends and teachers. In a higher education context, technological tools are utilised for online learning. The combination of digital tools in teaching-learning process and a suitable materials for generation Z learners is also important as it will engage students in the learning process. In entering the future workforce, generation Z learners are equipped with knowledge, skills, and competencies in English to support them in finding jobs locally and regionally.*

**Keywords:** Learning Style; Academic Performance; Technological Tools; Generation Z

## INTRODUCTION

University as the higher education must be able to equip its students with skills needed for them. One skill needed for students to enter the future work force is mastering English. Even though English is the 2<sup>nd</sup> language in Indonesia, but it is still important as it will equip students to prepare them entering the future workplace. Learning process engage students as learners and teachers or educators. Nowadays, technological advances enable educators to be able to combine the use of online application and learning materials.

Generation is defined as a group of people who born and raised within a specific period of time. Each generation exhibits an unique characteristics as well as values (<https://genhq.com>, 2020)

Generation Z (born between year 1994-2002) has a distinct characteristic than the previous ones. Entering the digital era, one of the common question is how to integrate technology into teaching-learning activity. The challenges faced in the digital era is a students' issue as an impact of technology development. Generation Z tend to prefer to use technology information to search for information. Jain (2016) divided five generational cohort based on the year of birth and its value, they are: The traditionalists (1945 & before); Baby boomers (1946-1964); Generation X (1965-1981); Millennials (1982 to 2000); Centennials (2001 onwards +). The difference among

generation is shown in Table 1.

Table 1. Generational Cohort

<b>Traditionalists</b>	<b>Baby Boomers</b>	<b>Gen X</b>	<b>Millennials</b>	<b>Centennials</b>
1945 & before	1946 to 1964	1965 to 1981	1982 to 2000	2001 onwards
Conformers, dedication, sacrifice discipline, duty before pleasure, loyalty	Anti government, equal opportunities & rights, personal gratifications	Balance, diversity, entrepreneurial, fun, highly educated.	Self-confident, sociablilty, diversity, extreme fun, extremely techno savvy, extremely spiritual now!	Vigilant outlook, tempered expectations, less self absorbed, more self assured.

(Source: Janin, 2016. *Don't teach me, Let me learn! Millennial learning*)

Table I indicates the traditionalists cohort who are born between 1945 and before. The Traditionalists generation is known as “the silent generation”. The Traditionalists grew up during Great Depression and World War II in America. In one of another studies conducted by Jain (2016) has showed the Traditionalists characteristics: conformers, discipline, dedication, duty before pleasure, sacrifice, patience and loyalty. In the workplace, the Traditionalists tend to be a loyal employees and are considered as a hard workers. Many Traditionalist work for one company throughout their career. Other positive side of Traditionalists are discipline and dedication. They value authority in workplace. The negative side of Traditionalists is they often struggling to learn new things, especially technology.

Baby Boomers generation, are people who born between 1946 to 1964. They are considered as workaholics. The positive side of Baby Boomers generation is they are committed to their roles and they relish overtime in workforce. For Baby boomers, work is an adventure.

Jain (2016) has noted the behavioral patterns of generation X, such as: balance, diversity, entrepreneurial, fun and highly educated. The circumstances in which each generation grow up shapes the views, the way of thinking, and behavioral characteristics. Generation X value on the work-life balance; Unlike the baby boomers generation who tend to be workaholics.

The next cohort is generation Y (born between 1982-2000) or known as “Millennials generation”. The use of technology is important for generation Y. In the teaching-learning context, Millennials generation prefer to use online application to assess information from online platform learning, such as: Coursera, Udemy, EdX, etc. This online platform courses is considered to be an effective approach learning strategies, especially for Millennial generations (Jain, 2016, p. 61).

Centennilas (born 2001). They tend to be a fast decision makers and a digital natives. In this era, technology has become more advanced than previous years. Baby boomers generation often struggle facing a quick changing technology; while the generation Y and generation Z are technology savvy (Cilliers, 2017).

As seen in table 1, the gap generation between lecturers and students in terms of age, lifestyle, and learning style is big. Each generation has its own uniqueness and characteristic that makes it different from previous generation.

Generation Y is known as the first Millennial. The influence of technology has had a great impact on each generation, especially generation Y.

Generation Y and generation Z are born in the era where technology advances than previous years. They have a wider access for accessing information or interacting through social media. Generation Z or sometimes referred to as digital natives think that internet and computer have become the integral part of their lifestyle. Generation Z is unique and different from the previous generation. Generation Z tis technology in accessing source of information and interacting through social media. In education sector, generation Z learners prefer to have more hands-on experience during the course (Loveland, 2017). For generation Z who have grown up during the internet explosion, laptop and smartphones are two inseparable items in daily lives. In addition, recent research has shown dramatic shifts in youth behaviors, attitudes and lifestyles – both positive and concerning – for those who came of age in this era (Dimock, 2019).

Generation Z has a distinct characteristics in terms of creativity, verbal abilities, attention to others and the

environment, their appreciation to process and frequency usage of internet usage (Budiman & Franky, 2021).

Another research concerning learning style was conducted by (Fesol et al., 2016). Their research's purpose was to identify the preferred learning style among technical students from different faculties in a public university in Malaysia. The research applied Neil Fleming's learning style model with the distribution of questionnaires to 184 respondents. The result showed that 72.8% of the respondents possessed visual and visual-related learning styles. Therefore, it is very important for educators to choose the most effective teaching method in order to support the differences in students' learning styles. Understanding learning styles will help educators maximize teaching materials to suit students' preferred learning styles in order to achieve high quality in the teaching and learning process.

Obradović, Mitrović and Pavićević (2017) composed an opinion that based on the birth of generation cohort, their basic characteristics, the historical events that shaped them by their influence, and their exposure to the impact of technology. It could be concluded that their views on professional development and education are different. The availability and development of technologies had contributed to the creation of knowledge and skill gap between these generations. They presented the similarities and differences in the characteristics of these generations, with a special emphasis on the generation of Millennials who will dominate 50% of the global workforce by the end of 2020.

In higher education level, the youngest generation Z are now entering higher education level; while the older generation Z are entering the workplace. University as the higher level education is now facing the challenges of bridging the gap between the older generation and generation Z as the first semester student. How ready universities are to bridge the gap between older generation and the college students ?

Based on the model of previous researchers, the research explores a learning method strategy for generation Z in learning English and possible recommendation for English educators in teaching English for generation Z. One main challenge is how to choose and to combine the online teaching application and learning material that meet the needs of generation Z.

The purpose of the research is to find out the challenges that is faced by lecturers in the digital era. This article only discusses two main points: (1). The changes in an education. (2). The challenges faced in digital era for both students and lecturers.

## METHODS

The research applies a qualitative method with literature study style. A literature review is a systematic way of collecting and synthesizing previous research (Snyder, 2019) to produce new findings in the form of descriptive data from various sources studied. There are two kind of literature sources. The primary sources is literature that based on research, such as articles, scientific paper, journals, and research reports. The secondary sources is books, monography, magazines, newspaper and indexes. The literatures are comprehended by reading, understanding, analyzing, and concluding the analysis results to produce new findings in the form of descriptive data from various sources studied.

In order to find out more deeper about the challenges and changes faced in digital era. The information are taken from the reliable sources, such as online journal, books or the research relate with the keyword search "generation Z" and "learning style". The data analysis technique is used is the content analysis method. The analysis is used to obtain valid inferences and can be re-examined based on the context (Krippendorff, 2013). The stages in this analysis consist of the process of selecting, comparing, combining, and sorting various meanings, so that relevant knowledge is found to clarify the learning style needed by Generation Z or Gen Zers.

## RESULT AND DISCUSSION

Entering new era means that we are entering new challenges as well as a new opportunities. In educational context, it focuses on the implementation of digital tools in pedagogical process in class. The role of digital tools takes the important part in teaching-learning process. As mentioned by Anggraeni in Hariharasudan & Kot's journal that technology-implemented upskilling in the teaching and learning process is known as Education 4.0, which is inspired by Industry 4.0 (Hariharasudan & Kot, 2018).

Promoting education 4.0 will enable learners to become an autonomous learners.

Language learner autonomy is a teaching / learning dynamic in which learners plan, implement, monitor and evaluate their own learning (Little & Dublin, 2020).

Implementing technology into schools' curriculum requires adequate digital knowledge from educators. In one of Anggraeni's research, she noticed three challenges in promoting education 4.0 in English for survival class (Anggraeni, 2018) described the three challenges as follows:

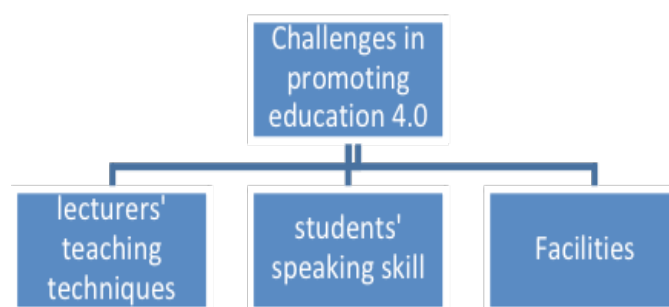


Figure 1. Diagram Three Challenges in Promoting Education 4.0 in English for Survival Class

The first challenge the educators faced regarding teaching techniques. Lecturers need to utilize different teaching techniques as it would support learners' engagement. The second challenge was students' speaking skill. The various background of learners' ability to speak English fluently. The third challenge was facilities, which covered the internet connections, smartphone, WhatsApp and Instagram. To promote education 4.0 in educational setting for English learners need a good teamwork between educators and learners and supporting facilities such as internet connections and online education platform.

Different generation has different learning style, different learning approach and strategies. For generation Z learners, the utilization of technology for teaching-learning process is more engaging and attractive.

The skills needed for 21<sup>st</sup> century learners are different from the previous generation. Generation Z is not a passive students as in traditional teaching-learning methods. One teaching-learning approach is constructivism. Constructivism focuses on the active learners' process with their environment. As noted by Suhendi, Puwarno & Chairani (2021) that constructivist learning can be formulated as the compilation of knowledge from concrete experiences, through collaborative activities, reflection and interpretation (Suhendi et al., 2021). In constructivism, educators or teachers believe that learners bring their own prior experience and knowledge. They are not seen as a blank paper waiting to be filled with knowledge from educators.

One way to combine the use of ICT and constructivism is by using mobile device. This method is known as the 'constructivist-mobile learning environment'. The constructivist-mobile learning environment supports learners to do collaboration, sharing knowledge/information, giving feedback among learners (Poláková & Klímová, 2019). In line with Polikova & Blanka 's statement, (Wang, 2017) noted that the use of mobile device in classroom provides positive outcomes for learners, namely: increase learners' motivation, encouraged learners to become an independent learners, improve learners' self-confidence, help learners to increase English vocabulary and provides out-of school learning experience.

(Klimova, 2019) In one of her research indicated the use of mobile device was effective in improving learners' performance in language learning. The findings revealed that learning foreign language trough smartphone have supported learners to achieve a higher learning outcomes than learners who did not use the special features designed by the researcher. The same result was indicated by the previous researcher done by Yaman in 2015 (Yaman et al., 2015) encouraged learners to utilize the mobile-device in increasing learners' vocabulary acquisition

rather than forbid them to use it in class activities.

Generation gap between generation Z learners and faculty members in universities have created a big problem in terms of learning styles and learning method. One technique to solve the gap between faculty members and generation Z learners, in terms of learning style and learning method is by utilizing technological tools in the teaching-learning process. Why technology is important in learning English, especially for younger learners ? because the growth of internet has opened a new opportunity for educators and learners to access information and knowledge freely.

Technologies were created to help the work of educators and to equip learners' skill, knowledge and competencies in a more entertainment way. How can technology help empower educators in teaching-learning process ? the use of technology can minimize the gap between the post-millennial generation learners and the previous generation. The combination of methodology used in teaching-learning process will give a maximum impact to the learners tis is used appropriately. In line with this statement, (Hariharasudan & Kot, 2018) added that such technology-supported teaching and learning experience are the core concepts of Education 4.0 ((2018).

The term Technology Enhanced Language Learning (TELL) as Dudeney & hockly (2007) has noted, appeared in 1990s in response to the growing possibilities offered by the internet and communications technology (ICT). The use of ICT could support students to practice four main basic skills – speaking, listening, reading and writing. The use of ICT in English learning process help learners to be more creative and engaging. The use of Information Technology (IT) especially in learning English has helped students to improve students' skills. Schools or universities have provided its students with computers, projectors and a language laboratory to practice English. The use of computers, compact disc (CD) and projector have been used in class or a language laboratory to help students practice listening, reading and grammar. The implementation of technology in language learning has supported learners to achieve higher and better result. Some suggestion from Internet has changed the way students acquire information and socialize. The data indicated that 59 percent of generation Z, 14-23 year olds, access Youtube for learning and information. 55 percent believe Youtube contributed to their education and only 47 percent prefer textbooks as a learning tool 66% of generation Z spends more time visited video sharing websites and 53%played online games (Pearson, 2018).

Social media as a part of gen Z-ers life could be used as a powerful education tools to give a positive impact on education sector. The definition of social media is not limited to a web-based service where people could exchange information only (Kamel, 2015) broaden the definition of a website into a computer-mediated tools and applications that give space to create, share or exchange information, ideas, pictures and videos virtually and without barriers. In addition, Alalwan et al study found out three findings regarding the use of social media for collaboration and communication among learners and how its influence learners performance at higher education. The research indicated three main findings: first, the use of social media for collaboration and communication and its influence on the students' performance at higher education supported a positive atmosphere for enhancing collaboration learning and improve learners motivation to communicate for online learning. The components used were: Blogs, Facebook and YouTube. Second, the institution has to support learners to use social media for collaboration learning and join online courses provided by the lecturers. Third, the availability of resources for learners to utilize social media for collaboration learning (Alalwan et al., 2019)

English is a skill that needed for future workforce. As a non-native English speakers, Indonesians prefer to use bahasa Indonesia as a mother tongue in daily acitivity. Therefore, faculty members and educators have to be more creative in planning the language lesson curriculum for generation Z learners. One method is by using technological tools and social media. The expectation from this method is that it would give opportunity for learners to use English in their daily life (Aziz et al., 2019).

Technology plays an important part for generation Z. Computers, laptop and internet have become the inseparable parts for generation Z. Electronic learning (E-learning) now has become the choice for learning, especially for 21<sup>st</sup> century learners. The term E-learning refers to the use of information technology that enables learners to access all sources of knowledge and information (Arkorful & Abaidoo, 2015).

Giunta (2017) in one of her research found that majority of generation Z were comfortable with technology. The surveyed learners showed that learners spent 2-7 horus per day online. Generation Z grew up in the unique time of history. They spent most of their time texting, posting, streaming, surfing the internet. Moreover,

Giunta (2017) stated that generation Z as the 'self-educators'because majority of them learn new things through Youtube videos. They grew up with touch-screens.

Putri (2020) in one of her research indicated the use of technological tools in teaching-learning process could help increase students' motivation and enables students to work collaboratively. Her research was done in 2020 where her research aimed to investigate the utilization of technological tools in implementing the research-based teaching method in English for Academic Writing Course. The narrative research design was implemented to reach the conclusion of this research. 66 (sixty-six) students were observed. Lecturer's reflective journal and portfolios were analyzed. An online interview was conducted to confirm the initial findings. There were six technological tools and applications utilized during the preparation process. Instruction, and practice process, as well as in the assessment and transfer process. Through a structured reflection based on Gibb's model of reflection, the result shows that the students' motivation is increased during the use of technology. Technology also enables students to work collaboratively. Nevertheless, preparation and briefings are needed to be done before the class begins. Like the classic problem of technology implementation, internet access becomes the main challenge in conducting Technology-Enhanced Learning (TEL) in the class.

Poláková and Klimová's research which was done in 2019 showed that the use of mobile phone in English-language learners was beneficial. The application used in this research was kahoot!. This was indicated by the response from learners that they were satisfied with Kahoot!. The study showed that learners felt more enjoyable learning English through kahoot! Rather than using the traditional method. The study also revealed that the use of Kahoot! Is beneficial to improve learners' English vocabulary (Poláková & Klímová, 2019). In line with Poláková & Klimová's research concerning the use of mobile application application in English learning, the finding of Wang's result showed that the use of mobile phone in English learning encouraged their motivation to learn to support them to be independent learners (Wang, 2017). Lagoda et.al conducted a research aimed to analyze the influence of information and communication technologies on the process of learning English. The findings indicated that the use of ICT in English learning class (foreign language classes) provided opportunities for learners to develop their communicative, informative and educational competences (Lemeshchenko-Lagoda et al., 2020).

Teaching generation Z could be challenging for educators, especially in higher education context. Young and adult learners still need motivation to support students' motivation for learning and to help students achieve their goals in learning. By integrating the technological tools into curriculum, it is expected to bridge the gap generation between the old generation and the generation Z learners. Corporan, Nagata, Garcia & Martin carried out a research concerning the perception of teachers on collaborative tools knowledge level mediation by ICT and their experience with students. The research aimed to assess perception on the competences on technological tools, especially for secondary school teachers with their students. The participants were: teachers and students in Dominican Republic. Two main aspects to be analyzed were the level of knowledge of educators on technological tools and the collaborative experience the educators have been carried out with their students. The findings showed the level of knowledge of educators regarding the use of ICT was between medium and low score. Regarding the collaborative work experience, the result showed only 48% teachers have developed some collaborative work in their teaching-learning process; while 52% stated not performed any collaborative experience in teaching-learning process. Furthermore, 96% teachers stated the use of ICT were useful for promoting collaborative projects with learners. Based on this research, it could be concluded that teachers who have adequate knowledge in ICT would apply collaborative work in teaching-learning process (2020).

As educators who are accustomed to teach using a conventional method, it is encouraged to make changes and all necessary adjustments needed since it would help learners to increase their motivation and to help them to achieve their educational achievement, especially in teaching foreign languages. As (ПЕЧЕНИЗЬКА (Губарева) & ЗАВАЛЬНА, 2020) mentioned, there are some features that should be introduced in foreign language class, there are: visualization of the material, using gadgets during training, involving students to the search for up-to-date authentic material needed for learning foreign languages and developing reflection and self-examination skills in students.

Educators need to equip themselves with knowledge and skills needed for industrial revolution 4.0. Industrial 4.0 has had a great significant impact in human's lives.

Since covid-19 outbreak, the need of the utilization of Information Communication Technology arises. Hence, the digital competencies for educators is needed to maximize the pedagogical process. Entering education 4.0. what are the educators characteristics? (Ramírez-Montoya et al., 2021) found out that the profile of education 4.0 teacher can have great significance in different areas. In addition, Montoya et.al mentioned noted that one competencies that must be possessed by educators 4.0 is the ability to use technologies and applies new tools that facilitate learning through virtually, artificial intelligence, digital technologies, and educational applications

(Ramírez-Montoya et al., 2021).

Two qualities of educators 4.0 based on Tran & Lee’s research: key qualities and main qualities. The key qualities are: interpersonal skills, technology skills, study skills and personal style. The main qualities are: technology skills, instructional skills, lifelong learning skills and personal style (Cuong & Le, 2020).

Nine fundamental digital skills that educators must possess in 21<sup>st</sup> century as shown in table 2:

Table 2. Fundamental Digital Skills for 21<sup>st</sup> Century

Skill	Application:
Record and edit audio clips	Soundcloud.com; audioboom.Com; vocaroo.com; clyp.it
Create interactive video content	Youtube video editor; wevideo.Com; magisgto.com; animoto.com
Create infographics & poster	Pikochart.com; canva.com; drawings.google.com; thinglink.Com
Create PLNs, connect, discover new content & grow professionally	Twitter.com; facebook.com; plus.Google.com; linkedin.com
Use blogs & wikis to create participatory spaces for students	Blogger.com; wordpress.com; edublogs.org; wikispaces.com
Create engaging presentations	Docs.google.com/presentation; haikudeck.com; zoho.com/docs/show.html; prezi.com
Create digital portfolios	Web.seesaw.me; silk.co; sites.Google.com; weebly.com
Curate, organize and share digital resources	Diigo.com; scoop.it; educlipper.Net; edshelf.com
Create digital quizzes	Flipquiz.me; riddle.com; quizale.Com; testmoz.com

*(Source: Kharbah, 2016. 9 Fundamental Digital Skills for 21st Century Teachers Educational Technology and Mobile Learning)*

There are digital tools that is useful for learning English, namely: computers and laptops. As mentioned by (Lemeshchenko-Lagoda et al., 2020), the use of computers and laptops have become learning tools that can visualize a variety of information. They affect all components of the training system: goals, content, methods and organizational forms of training, teaching aids, which makes it possible to solve complex pedagogical tasks, namely: the development of intellectual, creative potential, analytical thinking and self-realization. The other digital tools for teaching-learning process is interactive whiteboard. The benefit of using interactive whiteboards is that it could provide students with slides, videos and information (Lemeshchenko-Lagoda et al., 2020).

Socrative, padlet, mentimeter, google forms, kahootz, flipgrid are some online teaching medium for online learning process. According to Mendoza (2018), kahootz is a game-based learning and trivia platform. Mendoza explained five (5) benefits using kahootz in teaching-learning process. First, Kahoot can be used in various fields. Second, Kahoot is fun and it is an interesting way for learners to be involved in learning process. Third, Kahoot is simple to use. Fourth, Kahoot is free. Everyone can use it and players do not need to create new account. Socrative is an online assessment tools that educators and learners to assess the understanding of learners through questions and quizzes.

Padlet is a website that provides users with a digital canvas (Zakime, n.d.). Padlet is effective for developing learners’ collaborative skills. Padlet is easy-to-use tools for learners and educators. There are eight different layouts of padlet. Each layout has different function. Educators or learners can choose which layout is suit for each course. Padlet allows learners and educators to display pictures, link, video, audio and other information.

Padlet is a platform where educators and learners share ideas and opinion together. Padlet creates an opportunity for learners to be a creative and collaborative learners. The mixed learning style between the conventional approach and the use of Information Technology gives the new opportunity for learners to be more attractive and engaging. Youtube is another an online platform which is very popular among generation Z learners. Generation Z are more adept in using technology. Resta and laferriere (2007) have mentioned the four instructional motives on how the technology as a way to introduce collaborative learning. Inma Beltran-Martin elaborated the four instructional motives based on Resta and Laferriere (2007), as presented in Figure 2.

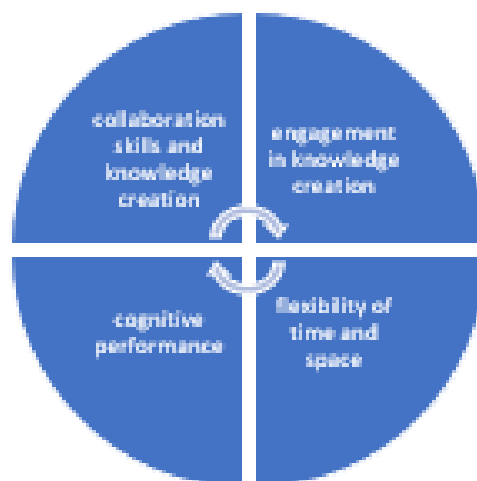


Figure 2. Instructional motives for the use of technology in collaborative learning.  
 Source: Inma Beltran-Martin based on Resta and Laferriere (2007).

As seen in figure 2, four instructional motives for the use of technology in collaborative learning are: first, technology helps learners by increasing collaborative learners and knowledge creation. Second, technology help to develop learners cognitive performance. Third, technology enables teaching-learning process to do an online collaborative learning among learners. Fourth, technology creates an opportunity for learners to be more engaged in learning process (Beltrán-Martín, 2019).

The use of padlet in English learning enhances collaboration, exploring ideas among learners. How can educators use padlet effectively to improve learners English skills ?. One study conducted by Lestari & Kurniawan (2018) in Kediri, East Java use padlet to enhance learners writing skills. The study conducted on 2014-2015 academic years to the third semester students of English Department, Uniska – Kediri. The emphasizes of the study is on the writing skills, especially on the descriptive text by the first semester English learners of the 2014-2015 academic years. The result shos that the use of padlet improved students writing achievement that was indicated by the result of each cycle. On the first cycle , learners had difficulties in accessing padlet for learning process and some grammatical errors. On the second cycle, learners writing achievement had improved. The role of educators plays an important part in this stage. The support, motivation from educators gave a positive attitude toward learners participation in learning process (Lestari & Kurniawan, 2018). In this study, the researchers applied team pair share method and use padlet as a digital tool to grab the attention of generation Z learners. Among many variations of digital tools, padlet is on of the tools that enables learners to be creative and active in giving opinions or ideas (Lestari & Kurniawan, 2018).

The advantages of using padlet in teaching-learning process are: a. padlet is easy to use for learners and educators. B. online collaboration between learners and educators. C. multimedia. All medias (videos, link, text, pictures/photos) can be uploaded on the wall. D. mobile. Padlet can be accessed in laptop or smartphone (Zhi & Su, 2016)

Formative and summative assessment are important part in teaching-learning process. Formative assessment is part of the learning itself. It measures the understanding of students during teaching-learning process; while the summative assessment evaluates students at the end of a course.

Different from padlet, there are several online tools that can be used as an online assessment tools, such as: kahoot, socrative, or quizziz. These online applications help educators to perform online assessment in real time. One of the online assessment is socrative. Socrative enables educators to do an online assessment for learners.



Socrative is a formative assessment application that helps educators to assess learners' understanding through various types of questions and quizzes. The advantage of using socrative as an online assessment is that it can be done in class or virtual class in real time and educators could assess the progress of each learner.

Technology has shifted the way educators do the assessment. The online assessment provides the real-time feedback. Educators can apply different ways to achieve the summative and formative assessment.

One study conducted by Maesaroh, Faridi and Bharati (2020) examined the effectiveness of Socrative and kahoot in learning English for the 8<sup>th</sup> grade students in Cirebon West Java. Learners came from different background, skills, interests and also experiences. The focus of their study was on the grammar for junior high school students. There were two online applications used as a comparative approach in the research: first, was socrative and second was Kahoot. The implementation of two online applications, socrative and Kahoot were effective tools in helping the low achievers and high achievers learn English grammar (2020).

A research conducted by Kayla & Balta (2016) emphasized on the attitudes of English language learners toward socrative. The findings showed that the students' attitudes were assessed through four questions of each survey. The result provided a positive feedback. There were 86% participants found socrative easy to use; 78% participants improved participants engagement; 78% participants did not perceive disadvantages; only 55% participants said that they wanted to use more in the next semester. Furthermore, the female participants had a more positive attitude outlook than the male participants. Based on this research, it could be concluded that participants had the positive attitude toward socrative.

Socrative is applied to evaluate students' ability. Google Forms is also utilized in establishing tests for students. When it comes to more technical materials to be tested, google forms is suitable to be utilized. This application is mainly utilized when students have to practice their writing skills in paraphrasing, citation writing, reference writing and summarizing. In the in-class activity in the classroom, students should utilize the six tools and web-based applications according to their needs. For example: padlet is utilized for brainstorming, discussing and evaluation session; while kahoot and socrative are utilized for the assessment and transfer process. These applications bring a positive attitude and improved students' motivation in having an assessment. The applications also facilitate the educators to save the test result and see the students' scores directly (Fesol et al., 2016).

Another method of teaching are blended learning and flipped learning. Blended learning is a combination between face-to-face meeting and online resources. Flipped learning emphasizes on students' active learning before entering the class. According to Fulton (2012), there are some advantages of flipped classroom. Those are students can access lecture videos whenever and wherever they want, and it provides students to learn at their own speed.

Learners involvement during teaching-learning process is important. Flipped classroom gives an opportunity for each learner to be more engage in the process. Classroom engagement as Handelsman, Briggs, Sullivan & Towler (2005) mentioned is one of the most important factor to create an effective learning environment was considered as an indicator of student achievement. The implementation of flipped classroom method was explained by Ayçiçek and Yelken (2018) who concerned with teaching English. The research aimed to determine the effect of flipped classroom model on students' classroom was one way to get learners more engaged in learning process. With guidance from educators, learners were able to perform the class' activities better. This model also enabled learners to develop learners' high-thinking skill. Preparing the content material for generation Z learners is challenging, especially for educators. They need to choose one or two online media platforms that suits the learning outcomes of each course. The learning objectives (LO) of each course must be conducted before learning starts to inform learners about the objective of the course, the overview the course and also the teaching-learning strategy for learners. The content of material can be uploaded in the form of PDF, PPT, Microsoft word or link related to the content of the material. Videos or films can also be included as the additional material of the course.

## CONCLUSION

The new era of education has begun. Different generation has distinct characteristics. Generation Z learners is unique in terms of lifestyle, age and learning style. For generation Z learners, technology is part of their daily lives. Generation Z learners prefer to use social media to interact with friends, teachers and surf the internet to acquire information and knowledge. Generation Z learners have different characteristic from previous generation. In higher education context, the generation gap between generation Z learners and the previous generation is big in terms of age, lifestyle and learning style. To bridge the generation gap between generation Z learners and the old generation in a higher education context is by utilizing technological tools for online learning.

Entering the future workforce, educators need to equip generation Z learners with skills, competencies and knowledge needed to prepare generation Z learners entering the future workforce. English is one skills needed to broaden learners' knowledge, to build relationship with people and opens the opportunity of geeting a good job in multinational or international companies. A different learning style is needed, especially for generation Z learners to give a maximum result.

Two techniques used are blended learning and flipped learning, where it gives more opportunities for learners to be more engaged and active in pedagogical process. Blended and flipped learning are considered as one of the effective method for learning.

The combination of digital tools in teaching-learning process and a suitable materials for generation Z learners is also important as it will engage students in the learning process. Since this course will implement flipped and blended learning, the chosen application should enable students to access the application everyhwer and anywhere. Nowadays, there are many digital applications for educational purposes, such as: padlet, socrative, quizziz, kahootz!. Each of this online application has different functions. Padlet enables learners to do a collaboration project, or to brainstorm ideas between each learner. Socrative and quizziz act as an online assessment. They provide multiple questions for learners to answer it in a real time. Utilizing digital applications for educational purposes is enjoyable and more engaging.

Trainings as well as workshops are needed for educators to enhance educators' skills and competencies in the utilizing digital tools for teaching-learning process. Fundamental skills for educators are important to be developed as it will equip them with all competencies needed for the teaching process, such as: how to use padlet or quizziz in teaching-learning process and how to develop the new material for gen Z ers.

Preparing the material for generation Z learners is challenging, especially for the educators. Educators need to review the material, suit the learning outcomes with each course and choose which online education will be used in each course. By understanding generation Z learners unique characteristic, it would help educators to re-think in arranging the suitable curriculum and materials for generation Z learners.

The implication of the research concerns with the educators who plays important role in guiding and motiviong generation Z learners in an online teaching environment. They should develop their competencies in communication skills to their students because they do not meet them directly in which they can read their non-verbal communication. The use of ICT should also be in line with the teaching process.

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