

Learning loss experience and control motive by Zillennial generation in Indonesia

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ABSTRACT

The development of the COVID-19 situation in Indonesia affected particularly education sector in Indonesia significantly when learning loss occurs. The majority of students forced to attend online learning during the pandemic era are Generation Z (Gen Z). Gen Z is viewed as a digital natives group that can adapt quickly to online learning, but independent online learning situations make Gen Z vulnerable to experiencing learning loss. It will be interesting to find out the process of controlling learning loss done by Gen Z as digital natives. This research used a qualitative method with a phenomenological approach. The main informant consisted of 32 students selected purposively with the criteria of those born in 2000-2008. Few in-depth interviews were conducted offline and the majority of them are conducted online. The finding of research shows particularly that the experience of Zillennial generation group (cohort) with online learning before the pandemic (Because-motives) and during the pandemic can equip them to control learning loss they feel conscious (In-order-to-motive). Another finding leads to the creation of three Gen Z *Typications* in online learning during the pandemic time including inconsistent, proactive, learning independence, and desperation *Typication*. Generation Z group exists as one generation consciously experiencing loss of learning during pandemic incidence.

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1. INTRODUCTION

The COVID-19 situation development in Indonesia affects the education sector significantly. All actors of education feel various limitations of the online learning process. The transfer of knowledge process organized maximally is expected to create a quality learning environment. Pandemic incidence leads to the shut of schools so more than 1,6 billion children are affected by the long-term consequence [1]. United Nations Educational, Scientific and Cultural Organization (UNESCO) feels fear of learning loss experienced by the students [2]. Various potential gaps or discrepancies occur in the learning process due to the forced change of learning from offline to online.

In this case, learning loss may occur when education advance is not felt in the educational unit, compared with that in previous years [3]. Even World Bank's study found that Indonesian students have experienced learning loss as indicated by the 11-point decrease in reading literacy in Programme For International Student Assessment (PISA) from March to July 2020, with an assumption of a pessimistic scenario that the school would shut up to October 2020, there will be a 21-point decrease in PISA [4]. Meanwhile, in its development, the situation of study from home continues when the delta variant of the virus spread in Indonesia on June 2021.

Some factors contribute to worsening the condition of learning loss: parents' economic condition, parents' preoccupation with working outside, and the demand for work from home felt by parents [5]. School closures have an impact on student learning loss, this tendency occurs in students who come from less fortunate households [6]. These will lead to limited access and facilitation found by the students, particularly Zillennial generation.

In relation to generation, data from the Indonesian demographic census in 2020 shows a total population of 270 million people, particularly the number of Generation Z born between 1997-2012 is has a higher percentage range, 27.94% or about 74.93 million people [7]. With the high generation number, it is interesting to see the learning loss condition the Gen Z experiences by identifying in-depth the experience making the Gen Z encounter learning loss and its control motive.

In online learning, time flexibility the Generation Z has is very varying. The generation called z or Zillennial gen has a high intensity in using gadgets [8]. Nevertheless, Generation Z has a variety of different working perspectives challenging institutionally [9]. The research related to learning loss conducted before the pandemic [10] found that some students experience learning loss in the summer. It means that in a short period of time, students can have a learning loss. Another relevant study tried to present various cases of innovation experience and successful teaching-learning in Generation Z [11]. The research seems to focus on the perspective of teachers' success in organizing the teaching-learning process for Generation Z. Meanwhile, this current research focuses primarily on the learning loss experience and control learning experienced by Gen Z during the pandemic.

Identifying the experience and the motive of controlling learning loss in Generation Z during the "study from home" program is very vital today to see the situation of learning direction in the future. It is important for the actors of education to identify the character of the generation and the social changes occurring. Therefore, considering the problems aforementioned, this research has the objective and novelty of analyzing the experience and the learning loss controlling motive from Zillennial generation's perspective in order to find out the characteristics of learning loss perceived by Zillennial generation during the pandemic.

The generation theory approach is used to see the learning loss experienced by Gen Z. theoretical approach builds on the idea that the generation group (cohort) is bonded to experience an event [12]. This theory was first put forward in [13] the existence of a generation is possible due to the five characteristics of society: society resulting from a new cultural process, disappearing previous generation, generation with limited participation, the need for cultural heritage transmission, and lastly, the continuous transition from one generation to the next. It is confirmed by the emergence of social generation groups based on shared events/historical experiences [14].

The reinforcement of phenomenological theory is made to see the direction of learning loss controlling motive implemented by Generation Z. Phenomenological in this theory view [15], as a social creature, human beings have consciousness of daily life activities they undertake, indicating that they have a social consciousness. Identifying experience using Schutz's perspective makes us understand the social world well, either methodologically or epistemologically [16]. The result of current research is expected to be input to the formulation of strategic policy in minimizing the learning loss incidence during the pandemic in Generation Z and the preparation of policy in the future (post-pandemic) by knowing the characteristics of Gen Z's learning need.

2. RESEARCH METHOD

2.1. Research design

In this research, a qualitative method was used with Schutz's phenomenological approach [15], because it is appropriate to give a description of generation phenomena from Gen Z's life experience related to learning loss conditions perceived during the pandemic. Schutz's Phenomenological approach can connect scientific knowledge to daily activity providing experience and knowledge. Phenomenological vision attempts to comprehend an event and its relation to the people in a certain situation [17].

The procedure of collecting qualitative data was conducted through either offline or online in-depth interviews including video conference (Zoom or Google Meet), interviews via telephone, WhatsApp calls, WhatsApp text, or WhatsApp audio record to see in-depth the situation experienced by the informants. Participants were given an explanation of the purpose of extracting data in this study, it is important to do this before conducting any research [18]. Informants' consent was given verbally, via text messages, or by filling out a consent form that helped them truly understand that data and confidentiality will be guaranteed. Researchers make cloud interview guides with open-ended questions, so as not to direct informants and can open opinions and views [18]. The focus of the informant's questions looked at the experience of learning loss and control motives identified in Generation Z students when doing online learning. Therefore, the research was conducted from August to November 2021.

The identification of data was conducted on the three samplings of education levels existing in Indonesia: junior high school (born in 2006-2008), senior high school (born in 2003-2005), and high education (born in 2000-2002) recalling that data complexity is obtained from each education scope of Generation Z. Table 1 shows the main informant consisted of 32 students selected purposively with the criteria of those born in 2000-2008. The qualitative samples were taken from the majority of informants living in Java Island, Indonesia. The informant consisted of 32 students: 18 live in urban areas and 14 live in regency areas. Out of the figure, 20 are female and 12 are male, 9 studying at Junior High School, 12 are at Senior High School, and 11 are at university.

Following the data collection process, the next step is to see in-depth the data reduction from the result of the interview to make the analysis process run more easily. We verified the interview transcripts of the informants to ensure that their experiences and perspectives were captured accurately. The result of the research is then presented in a phenomenological analysis of learning loss experience and controlling motive related to the problems encountered by Zillennial generation students.

Table 1. Informant characteristics

Informant code	Gender	Year of birth	Age	Levels of education	Home area
Interviewee 1	F	2008	13	Junior secondary	Urban area
Interviewee 2	F	2008	13	Junior secondary	Urban area
Interviewee 3	F	2008	13	Junior secondary	Urban area
Interviewee 4	M	2008	13	Junior secondary	Urban area
Interviewee 5	F	2008	13	Junior secondary	Regency area
Interviewee 6	M	2004	17	Senior secondary	Urban area
Interviewee 7	M	2005	16	Senior secondary	Urban area
Interviewee 8	F	2004	17	Senior secondary	Regency area
Interviewee 9	M	2006	18	Senior secondary	Regency area
Interviewee 10	F	2002	19	Higher education	Regency area
Interviewee 11	F	2001	20	Higher education	Urban area
Interviewee 12	F	2004	17	Senior secondary	Regency area
Interviewee 13	F	2004	17	Senior secondary	Regency area
Interviewee 14	F	2002	19	Higher education	Urban area
Interviewee 15	M	2002	19	Higher education	Urban area
Interviewee 16	M	2004	17	Senior secondary	Urban area
Interviewee 17	M	2004	17	Senior secondary	Urban area
Interviewee 18	M	2003	18	Senior secondary	Urban area
Interviewee 19	M	2008	13	Junior secondary	Urban area
Interviewee 20	F	2005	16	Senior secondary	Urban area
Interviewee 21	F	2003	18	Senior secondary	Urban area
Interviewee 22	F	2004	17	Senior secondary	Urban area
Interviewee 23	F	2002	19	Higher education	Regency area
Interviewee 24	F	2002	19	Higher education	Regency area
Interviewee 25	F	2002	19	Higher education	Regency area
Interviewee 26	F	2001	20	Higher education	Regency area
Interviewee 27	F	2002	19	Higher education	Regency area
Interviewee 28	F	2000	21	Higher education	Regency area
Interviewee 29	M	2000	21	Higher education	Regency area
Interviewee 30	M	2008	13	Junior secondary	Urban area
Interviewee 31	F	2008	13	Junior secondary	Regency area
Interviewee 32	M	2008	13	Junior secondary	Urban area

3. RESULTS AND DISCUSSION

3.1. Results

3.1.1. Positive and negative perspectives of Generation Z during online learning

The current study will discuss the situation of learning loss and control motives resulting from online learning experiences experienced by Gen Z. The results of several interviews presented have represented the key findings obtained by the authors from the informants so that not all in-depth interviews are described in this paper. Learning online can be said as an event experienced by the majority of Generation Z today. Considering the situation, it can be seen that Generation Z born between 2000-2008 with varying education levels have no significant difference in the learning loss experience during online learning. The majority of data obtained shows that Generation Z uses an offline (past) learning perspective to see the basic perspective to see the different experiences they have in online learning. It can be seen from the elaboration of positive and negative aspects of the study-from-home program implemented since March 2020. A student born in 2004 sees the pandemic learning event either positively or negatively.

“Online learning during the pandemic has both positive and negative aspects. Its positive aspect is related to more time we can spend with family, and we can do the test in a more relaxed situation. But its negative aspect is related to limited time we have to assemble with our friends, so that we have inadequate time to socialize with our friends, sometimes we do not know our classmates, and we find difficulty in capturing the learning material.” (Interviewee 12)

From the citation, it can be seen there is a similar positive response to online learning mobilization in which Generation Z thinks that online learning is favorably viewed from time flexibility and information and communications technology (ICT) literacy development. In the same vein another informant said:

“My comment on online learning during the pandemic time is that it teaches us to utilize technology, particularly educational technology. How to communicate well and to apply ICT literacy well, but on the other hand this online learning is inseparable from some grievances we have, including incapability of seeing friends directly, of discussing with each other directly, and inadequate guidance from lecturer.” (Interviewee 27)

“I think online learning is flexible to the students, e.g., students can search for learning material anywhere through YouTube or Instagram. Honestly, I prefer this online learning method, because I can find more materials rather than referring to textbook only.” (Interviewee 21)

Specifically, the negative response is expressed to some problems with facilities and learning access related to signals, learning practice assigned by teachers, material acceptance, and other home activity burdens that according to Generation Z can lead to learning loss. The result of the interview with informants shows:

“It is less effective because most students do not listen to the teacher’s explanation because they are stuck into the cellular phone and often open other applications beyond the learning application.” (Interviewee 2)

“It is boring, as it contains many pressures like a task, and it makes students stressed because they should keep at home.” (Interviewee 8)

“Learning at home cannot run quietly, because we should help parent willy-nilly so that our learning is sometimes disturbed.” (Interviewee 31)

So, from the finding of the research, it can be seen that the Generation Z student group (cohort) can understand online learning events in-depth by seeing either their positive or negative effect based on the experience they have in the past (before the pandemic) when they study using face-to-face learning and compared it with long-distance learning during the pandemic.

3.1.2. The control of problematic learning loss by Gen Z

Another constraint is found related to the problems with the too-long use of technology in online learning, leading to learning loss. It may occur when students cannot manage their time well during online learning. It means that online learning may affect Generation Z’s health both physically and mentally. An informant said:

“Sometimes my concentration lowers along with the mood, it likely because I should watch the gadget (cellular phone or laptop) screen continuously, it makes my eyes sick, and my concentration lower.” (Interviewee 21)

“I think studying using online learning method makes me less focused because we really need entertainment, but because we can go outside, we just watch online entertainment like watching a movie, chatting with friends online, opening social media, and updating information on a smartphone, we should manage our time and learning activities.” (Interviewee 30)

“I focus poorly on attending the lecturing, I have more playing time, and I prefer wasting time by opening social media like Instagram, TikTok, and YouTube.” (Interviewee 28)

Although consciously some Generation Z feel learning loss when online learning, they have various controlling solutions in exploring knowledge. They prefer to look for information from various alternative platforms when they want to know anything. It is confirmed by an informant:

“We should manage learning time and objective well, the constraint appearing is related to the difficulty in comprehending the material delivered by the lecturers, I understand that lecturers usually have given references for a certain course, but I try to read the reference books slowly, despite they are written in English, I try to understand it gradually. Sometimes I watch YouTube

find the materials relevant to the lecturers' explanation, I study it thoroughly and if I have not understood it yet, I will search for information from the internet.” (Interviewee 11).

“When a constraint is found in online learning, I am always panic excessively. However, I should be able to control it by thinking clearly, because there will always be solution to each constraint.” (Interviewee 1)

The potencies in the technology era sometimes lead to the change in the effectiveness of technology used by some Generation Z. Some students experience learning loss because they cannot manage their time using gadgets so they develop physical and mental fatigue. But it can be seen in some Generation Z that can manage time for better learning objectives.

The finding shows that the proximity of Generation Z to technology creates interest in digital leisure time, as indicated by the increased duration of watching gadget screens to access digital content like movies on smartphones, the willingness to get the latest information from influencers, and the imperative to keep watching latest information on the relation in social media. Generation Z does so to remove saturation. Some informants said:

“Online learning is flexible because we can utilize leisure time by watching Korean drama and communicating with friends when they feel bored.” (Interviewee 2)

“Sometimes I am happy but some other times I am not happy because online learning gives us more leisure time. So, I can prepare for learning or comply with the task not too rigidly, I will feel fresher when I can manage time well at home to learn and to have entertainment, even online.” (Interviewee 32)

However, the effective management of leisure time felt by the students is affected by good attention, communication, and a learning ecosystem with parents who tend to be able to manage their leisure time more positively, as confirmed by an informant:

“Sometimes if I have leisure time, I like reading book and helping my mother and learning something new along with my elder brother at home.” (Interviewee 24)

“Study from home (learning at home) gives us discretion to manage our time as we want, although we sometimes find difficulty in learning the material ourselves. Nevertheless, it has some advantage (plus), despite my parent's question about my activity, and they always direct me to study, to take a rest, to eat, to do physical exercise to anticipate the tiredness due to online learning.” (Interviewee 17)

The majority of learning loss occurs in students who cannot manage their leisure time well. Meanwhile, students who get positive attention and direction from teachers or parents think that they can do online learning activities positively.

3.1.3. The constraints Generation Z found in a long-term online situation

Generation Z also faces the problem of social needs. The students from Generation Z still should be connected by social bonds. Some tasks and material difficulties will be easier if they can be discussed with peers directly. Such conditions can lead to the stressful situation faced by the students. It is confirmed by some informants:

“The disadvantage of online learning is that we cannot see our friends at school, and I understand poorly the material taught.” (Interviewee 4)

“Online learning makes us have no friend and offline learning is better because we can see our friends directly.” (Interviewee 19)

“This online learning is inseparable from the grievances I found such as inability of seeing friends, of discussing directly, and inadequate guidance from the lecturer.” (Interviewee 27)

Another finding shows the worsening situation of social interaction needs to be experienced by Generation Z during a prolonged pandemic when educational practice occurs in individual students' houses. The limited need for social interaction during the pandemic restricts the students' opportunity of discussing or merely solve the problem and find a solution with their peers, teachers, and community. An informant said:

“We interact inadequately with our friends, so the communication is inadequate between our friends and us, thereby building relation poorly.” (Interviewee 11)

It means that Generation Z experiences learning loss because it still needs social life directly in various activities, including the learning process. It is intended to make them not bored, to help them solve their learning difficulty, and to find a different experience.

3.1.4. Learning loss occurs in Generation Z with varying economic backgrounds

In relation to economic conditions, it can be shown that the shut of the school provides different situations to those with the varying socio-economic background. In this case, the economic gap or problem between those in the upper, medium, and lower classes lead to a learning loss situation with different problem characteristics for each of the economic classes. The students with parents from the upper middle economic class has learning loss problem related to the effectiveness of technology use and utilization that can disturb the learning concentration. However, students with parents from the middle-lower economic class tend to have problems resulting from the limited fulfillment of economic needs, including the constraint in buying additional internet quota that should help parents, communication problems with family, and inadequate facilities. It can be seen from the informants with middle-lower (Interviewee 13 and Interviewee 18) and upper-middle (Interviewee 14) classes:

“This my smartphone, it sometimes has low performance, easily used-up battery and easily hot if it is used to do online learning, so I study lazily. I have no laptop, my parents have not bought me yet, if I cannot do online activity, I will help my parents work.” (Interviewee 18)

“Sometimes we have no internet quota, so we are confused how to fill the list of attendance, how to do the task and we do not know whether or not our family have internet quota to give us free hotspot. Sometimes the signal is bad.” (Interviewee 3)

“We focus inadequately in online learning, moreover we use smartphone and it has more than one application or not only learning application but also other applications and it may distract our attention to social media or, so when we originally intend to study, instead we focus on other things, and our concentration is disturbed, that is why the online learning is ineffective.” (Interviewee 14)

Learning loss problem occurs in students coming from the family with varying economic class backgrounds, but students coming from lower economic classes tend to have a more complex problem. Learning loss experienced by Generation Z during the pandemic proves the less maximum access, facility, and quality of online learning.

3.2. Discussion

The analysis process is conducted using Alfred Schutz’s phenomenological theory viewing that there are two factors underlying an individual’s action: meaning and motive. There are two types of meaning: subjective and objective. Meanwhile, there are two types of motives: firstly, because-motives “Weil-motives” related to action leading to the past due to certain reason, and secondly, in order to motives “um-zu-motives”, related to the action leading to the future. The motive aspect will explain the learning loss controlling situation occurring in Generation Z consciously. Then, the experience aspect is viewed from the learning loss event encountered by the students, in this case, Generation Z, and analyzed using the generation theory approach to see the tendency of the generation group based on shared situations and conditions encountered, long-distance learning during the pandemic.

3.2.1. The consciousness of learning loss incidence in Generation Z (Weil-motives)

The experience with face-to-face learning before the pandemic makes Generation Z experience learning loss consciously during online learning. It can be seen from the “Weil-motives” analysis process conducted. Generation Z understands well either positively or positively the long-distance learning experience leading to learning loss by comparing the previous classical learning condition. The learning loss experienced by Generation Z is indicated, among others, with the positive aspect of online learning like the comfort of learning at home and learning time flexibility before the pandemic can be maximized by students and make them focus poorly on the learning process.

Because motives “Weil-motives” occurs very obviously when the Generation Z group with online learning experience during the pandemic perceives the same predisposition related to the learning loss condition due to saturation problem, physical and mental fatigue, loneliness feeling, and the less supporting learning situation, different from the previous classical learning. Learning loss is a concept defined as the presence of a less maximal process in learning implementation academically [19]. From the result of

research, Generation Z originally adapt quickly to online learning situations because indeed they have been accustomed to interaction in cyberspace and feel learning loss due to varying conditions and situations.

It means that a pandemic situation lasting for a long time eventually leads to changes in various activities, characters, and other habits. Generation Z tending to be more active in social media beyond academic activities previously now allocates more time to learning online and searching for information on the learning need. It implies that academic need and the desire for digital access to anything beyond the academic field tend to be high. In this case, viewed from generation theory, Generation Z is one of the cohort characteristics with the same experience in one online learning generation group. Generation Z with complex connectivity needs (not only online academic access) is forced to experience learning loss because the too long duration of watching screen results in physical fatigue and mental health problem like stress.

In addition, in online learning inadequate face-to-face contact occurs between students and teachers, a significant decrease occurs when the interaction process between a student and another cannot do directly, and personal time management problems appear [20]. If these problems are left without a solution, this Learning Loss can impact the quality of human resources born during the years during the COVID-19 pandemic [21]. Generation Z needs strong bonds from caretaking, teaching, and counseling and declines authoritarian relations [22]. Therefore, from the result of analysis on “Weil-motives” using phenomenological analysis, the past event before online learning experienced by Generation Z makes them comfortable with direct help obtained cross-generation when they find some difficulties. It indeed indicates that Generation Z tends to belong to the generation group that should be connected to others for self-development purposes. Table 2 shows the experience of Gen Z realizing the learning loss experienced before and during the pandemic.

Table 2. Learning loss consciousness experienced by Gen Z (Because-motives)

Weil-motives Learning loss consciousness	Before pandemic	During pandemic
Bored	The socialization process is resolved	Gen Z feel lonely because they feel that social need is important
Fatigue	Time has been organized by a system	Low-quality time flexibility
Difficulty	Teachers and peers can help	Parents are present to pay attention only

3.2.2. The control of learning loss in digital natives’ group (In order to motives)

In the analysis of “In Order to Motives” as a digital natives group, most Gen Z perceives that online learning makes them accustomed to learning independently to maximize the primary objective of learning, to master the learning material. The difficulty Gen Z finds in independent learning and the learning loss condition experience can encourage some of them to make a decision with good learning independence, but in various situations, the comfort of the learning ecosystem at home should be supportive. There is a positive effect of online learning, related to the improvement of independence, one of which is the invention of new children's learning methods [23]. The positive impact of distance learning is the flexibility and independence of learning providing opportunities for students to be able to determine the process and level of learning [24]. In teaching and learning activities, especially in learning activities from home, a student's self-awareness is needed to develop the learning process. According to Alghamdi [25], during the pandemic students will use the experience to see the future of education, this is related to increased learning independence, learning approaches, and strategies that can increase self-learning dedication. It indicates that the students of Generation Z students realize that when they are faced with independent learning for a long period of online learning, some of them experience learning loss if they cannot manage self-learning. However, some of them were also able to improve the quality of their learning, even though conditions were favorable.

In the process of minimizing the learning loss incidence, some Generation Z can create learning independence but need good direction. The success of learning readiness depends on the distance learning process that encourages motivation and awareness of the situation faced by students [26]. The previous study explained that it is very important to pay attention to the characteristics, motivations, and learning preferences of Generation Z in order to attract their attention to learning [27]. It means that Gen Z that has an online learning experience will get a positive supply for the learning process development of the next generation and the future online learning situation. Nevertheless, the result also shows some characters of Gen Z tend to find difficulty in managing their learning activity when teachers, parents, and friends do not pay attention to them.

In the analysis of “In Order to Motives”, Generation Z feels the need to keep connected to various quick accesses to knowledge for learning development at home. It is because Z Generation sees themselves as world citizen [9]. Digital natives have been a characteristic of Generation Z. Digital natives group has put smartphones to be the main information source, to organize, find entertainment, and be connected globally

[28], despite the vulnerability if online information management by students is not guided well. The learning loss experienced by Gen Z can be seen from the control motive shown in Table 3.

Table 3. The motive of learning loss control in Gen Z (In-order-to-motives)

In-order-to-motives Learning loss control	Form of control	Primary objectives
Personal motivation	Gen Z should be able to motivate themselves	To minimize laziness and to improve competitiveness
Others' support system	Gen Z highly needs attention from surrounding people	To avoid the self from difficulty and constraints during the study from home
Technology, facility, and access utilization	Gen Z is able to explore online learning needs independently with the help	To improve online learning not only relying on the information from the classical learning process

In analysis development, Schutz's *Typication* approach is used based on shared actor types and actions, and the social personality of Gen Z in relation to the online learning process experienced. It is accomplished by identifying the criteria from the statement of Gen Z about the online learning experience. The author found that the *Typication* of Zillennial generation students belongs to three groups, based on the compatibility of criteria. They are explained:

a) *Typication* of Gen Z inconsistent in online learning

Gen Z belonging to this *Typication* tends to do online learning activities inconsistently: including inconsistent management of leisure time, inconsistent management of learning activity, and inconsistent technology use like smartphones, student anxiety, and or depression. Despite high time flexibility, the process of exploring academic activity cannot be the primary objective of online learning during the pandemic. It can be seen from various situations close to the ineffective leisure time utilization in terms of academic need; therefore, the actors of education influential in Gen Z's learning process should direct and give good role models. The vulnerability will be getting worse if leisure time is not utilized well and results in a learning loss. Intense and transparent communication and interaction between family members are required during the study [29]. It can be achieved through some strategies to put Gen Z into a comfortable learning ecosystem.

It is because there is a predisposition to attend the learning by doing other activities at the same time when video conference learning is implemented [30]. It is in line with research, that teachers can observe factors that may affect student achievement and success during distance learning such as learning anxiety which can cause inconsistency [31]. Therefore, a process is required to give direction and recommendation and to give Gen Z a consciousness of responsibility for utilizing time more effectively. The ability to manage time flexibility among the students regularly and positively can minimize learning loss Incidence.

b) *Typication* of Gen Z proactive in having learning independence

Some data shows that with some convenient accessibility and facility of online learning, Gen Z faces different challenges. Gen Z with proactive character can minimize learning loss occurring by utilizing various digital learning sources well. The proactive Gen Z has an objective of improving interaction in social media to build relationships to anticipate their saturation and loneliness, and even to find academic information sources. In fact, the very individual distance learning process during the pandemic determines students' learning styles and preferences, this makes students have an adaptive approach to utilizing the digitalization era to obtain information and knowledge online [32].

Such a condition is perfected by the Generation Z response utilizing the internet to reinforce knowledge during online learning. It means that although Gen Z experiences learning loss consciously during online learning, they are in the "transitional" situation of a proactive generation group seeing that information technology can create online learning independence in order to minimize learning loss during the pandemic. Socio-economically, indeed the majority of members of this *Typication* are experienced by Generation Z students coming from the have family due to supporting accessibility.

c) *Typication* of Gen Z desperate with poor condition

Another problem arises from Gen Z who comes from the lower-middle economic class, corresponding to their respective family condition. Generation Z thinks that the financial crisis experienced by parents can affect their behavior, and the wider income gap and the shrinkage of the middle class have affected Generation Z [33]. A variety of family pressures and parents who work too much are the factors leading to the learning loss experienced by Generation Z students during the pandemic, because of the stressful problems encountered by the low economic class parents. These difficulties can in turn result in a learning loss situation.

Essentially, learning loss situation occurs in all low socio-economic class backgrounds, because the primary objective of online learning forces them to be close to the incapability of fulfilling various needs of online learning such as facility and infrastructure, close communication with others, and internet and technology access. The students of Generation Z belonging to this *Typication* are in a poor condition that needs support from everyone. Although basically, they have the good cognitive ability, the limited economic condition results in a complex learning loss effect. The findings about the *Typication* of Gen Z can be concluded in Table 4.

Table 4. *Typication* and predisposition of Generation Z group during online learning

<i>Typication</i> of Gen Z	The predisposition of generation (cohort) Z Group
Inconsistent	Learning experience before the pandemic makes Gen Z perceive some conveniences they cannot get in online learning during the pandemic. Gen Z in this group should be connected cross-generation as they need support, guidance, and direction in order to manage the learning process effectively. It is because learning loss potency may occur easily in this group with full consciousness.
Proactive and learning independently	Various difficulties found during online learning are considered challenges. The proactive Gen Z group will tend to be responsible for their knowledge development that in turn will create learning independence. This characteristic can potentially be role model in post-pandemic learning.
Desperate	Gen Z in this condition should get full attention after the end of online learning. They need complex support not only from cognitive reinforcement but also economic and social motivation, facility, and psychological support. It is intended to restore their learning spirit and self-confidence. All educational actors should participate in ensuring that this generation has been in positive situation.

4. CONCLUSION

The experience of Zillennial generation group (cohort) can equip them to control the learning loss consciously during online or distance learning during the pandemic time. The awareness of different learning situations before the pandemic with any supporting convenience experienced by Gen Z gives them different basic experiences in online learning, dependent on their own socio-economic backgrounds. However, some Gen Z has the potency to see difficulty, constraint, and obstacles when they perceive learning loss as the motivation to develop their competence. It can be seen from the finding of Gen Z *Typication* during online learning, including inconsistent, proactive, learning independently, and desperate. Gen Z with inconsistent *Typication* needs a systematically structured bond in the learning process experienced (all economic backgrounds). Gen Z with proactive *Typication* potentially creates very effective learning independence (tending to be on a mid-high socio-economic level), while Gen Z with desperate *Typication* due to the limitations encountered during online learning (tending to occur on a low socio-economic level) needs immediate support from many related parties in the education realm.

Learning loss is not a new problem and may occur in all classes with various social, economic, geographic, and other backgrounds. Learning loss during the pandemic time can be worse when students can utilize time as well as possible, despite the availability of facilities and infrastructure. Learning loss can be worse when students of Generation Z get minimum attention, external support, and self-motivation. The limitation of current research occurs because it sees Gen Z born in 2000-2008 only from junior high school, senior high school, and university levels who experience online learning events at home. It gives further researchers an opportunity to see other aspects more in-depth, including economic, geographic, and gender aspects and characteristics of each educational institution using different research methods. The recommendations of this study provide empirical information for learning development during the pandemic to determine post-pandemic learning strategies.

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