What Kind(S) Of Activity Motivates Gen-Z Students Best In E-Learning?

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Abstract:

The existence of e-learning has raised huge opportunities that anyone can learn anything, anywhere, anytime. It develops even rapidly as the pandemic of COVID-19 occured in around 2020 where students started doing their individual learning often. Many educational institutions tried to provide fun learning environment consisting materials and activities in which students could still feel facilitated and motivated in learning. This kind of environment of online activities boosts productivity among those whose learning process is still in need. Therefore, the output of a person finishing their learning through e-learning depends on what activity they engage with. Gen-Z is known for those who were born between mid-1990 to early 2000. Gen-Z is identified as the generation of Mobile and App Native as they were born where internet has already been mature. They are also open to things including educational ones such as e-learning. They are known for their fast learning process. Eventhough many research mention how e-learning leads to students' understanding, there is no particular research that discusses specific activities that interest and foster gen-Z in studying using e-learning. This research showed that quiz becomes the most exciting activity for gen-Z students, while material delivery through pdf files reveals to be the least motivating one. Based on this finding, it is expected that learning designers can adjust their online activities, especially in e-learning, to meet the characteristics of students as users of e-learning. It influences the choice of procedure, interesting topics, and interactions between students and teachers. The more students are engaged with the learning materials well, the more understanding they will possess.

Keywords*: e-learning, Gen-Z students, motivation, online activities, students' characteristics*

INTRODUCTION

The existence of e-learning has raised huge opportunities that anyone can learn anything, anywhere, anytime. This innovation enables students to keep learning and employees to maintain their performance in their self-pace (asynchronous) or instructor-led (synchronous) which lead them to rich experiences [1]. E-learning is not a new product yet its development has been interesting to discuss as many features are recently more sophisticated and its users have more various purposes. The study conducted by [2] in [3] even mentions that this kind of environment of online activities boosts productivity among those whose learning process is still in need. It can be said that the output of a person finishing their learning through e-learning depends on what activity they engage with. Many research on e-learning activities has been

established, like one conducted by [4] about students and medical professionals who learn through e-learning. One similar research written by [5] also discusses how activities in e-learning such as fill-in-the-blank assignment, video, and multiple-choice quizzes build students' learning experiences. The utilization of gamification has been integrated as well in e-learning as shown in [6]. The idea is proven by [7], explaining that teachers can create activities in e-learning based on what skills or values they want their students to master.

Gen-Z is known for those who were born between mid-1990 to early 2000. In their research, [8] mentions that Gen-Z is identified as the generation of Mobile and App Native as they were born where internet has already been mature. Supporting the data, [9] even mentions that based on the data of Indonesian Association of Internet Service Providers in 2022, more than 90% of social media users in Indonesia are aged between 13-24 yesrs old, which are categorized as Gen-Z. That is why they are open-minded to things including educational ones such as e-learning. Eventhough many research mention how e-learning leads to students' understanding, there is no particular research that discusses specific activities that interest and foster gen-Z in studying using e-learning. Related to this, [10] mentions that Gen-Z is more intelligent as they have more access to sources and able to learn and use it quickly. In e-learning, as students learn the materials by themselves, it is possible that they may experience boredom due to monotonous activities. Many research have shown that e-learning is a suitable leaning media for facilitating students, especially Gen-Z who are known as the digital native. However, there has been no sufficient data showing what kinds of activities interest them most. It is not clearly mentioned in which activity(s) Gen-Z students are motivated in involving themselves in e-learning, despite the material delivery strategy. Meanwhile, if developers have this information, they would be able to create various activities on e-learning to keep Gen-Z students' motivated in learning.

Looking at this data, there is a gap that motivates the researcher to explore more on this topic. Through this research, the author focused on the implementation of e-learning by Gen-Z students, especially on the activities that keep them learning. Therefore, the discussion on this research would deeply dig in how Gen-Z students see e-learning as their learning platform where they can interact with their teacher, friends, and learning material itself. Their characteristics in learning will be shown through their attitude in responding to activities on e-learning that affect their learning motivation. This research aims to provide information of what kinds of activities that best motivate Gen-Z students from e-learning. Hence, it is expected that the result will be beneficial for institutions, especially e-learning developers as a reference of designing motivating e-learning, so that Gen-Z students can still be facilitated in their learning through various ways of activities the teacher provides.

METHOD

This is a quantitative study using survey as the data gathering technique. A questionnaire was implemented to discover some kinds of activities from e-learning that motivated Gen-Z students best in learning. There were 45 items of questions, consisting of 40 closed-ended questions and 5 open-ended questions. Each activity in e-learning was marked as one variable which then was elaborated to five questions in a form of likert scale from 1-5, in which 1 is the least point and 5 is the maximum point. The rest five open-ended questions aimed to collect students' perspectives on the activities and how those affected students' motivation in e-learning. These five questions also enabled students to freely give their answers or suggestion toward how they interract with e-learning so far.

This questionnaire was distributed purposively to 30 undergraduate students who experienced using Learning Management System-based e-learning on their learning process. Moreover, they are students born within 1997-2012 who were categorized as Gen-Z. The data collected was then analyzed using descriptive statistics analysis to figure out the most motivating activity from e-learning for students. Additionally, to strengthen the data, elaboration of students' answer on the essay part was analyzed manually to provide evaluation and insight to the e-learning maker and developer in designing motivating learning materials.

RESULTS AND DISCUSSION

There were 8 variables named as X1 until X8 in which each variable stood for each activity in e-learning. The detail of each variable and its activity represented is shown in table 1.1 below.

Table 1.1 Variables details

X1	Material delivery through infographics
X2	Material delivery through videos
X3	Material delivery through pdf files / e-book
X4	Material delivery through URL (link)
X5	Quiz
X6	Discussion forum
X7	Individual assignment
X8	Personal feedback

The data collected through the questionnaire is shown in the table 1.2

Table 1.2 Result of descriptive statistics analysis

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
X1	30	19.00	24.00	21.5667	1.43078
X2	30	21.00	25.00	23.0000	1.28654
X3	30	19.00	24.00	20.8667	1.07425
X4	30	19.00	24.00	21.1000	1.37339
X5	30	21.00	25.00	23.4667	1.13664
X6	30	19.00	24.00	20.8333	1.20583
X7	30	21.00	24.00	21.8667	.97320
X8	30	20.00	24.00	21.9667	1.29943
Valid N (listwise)	30				

Based on the data collected, the author may conclude that the most motivating activity from e-learning for Gen-Z students is shown by X5, namely quiz with the highest mean of 23,4667 and the deviation standard of 1,13664 which is relatively small. Continuing the data, the next motivating activity is material delivery through videos (X2), personal feedback (X8), individual assignments (X7), infographics (X1), material delivery through URL (X4), material delivery through pdf file / e-book (X3), and the least motivating activity from e-learning is discussion forum (X6).

The top 3 activities that motivated students to learn from e-learning were quiz, videos, and personal feedback. This result showed that what [10] mentioned in his research was true that Gen-Z is most likely to learn easily through exciting visuals and competitive activities. This finding clearly explains that gen-Z students are most motivated in doing quizzes on e-learning and the difference of their score is relatively low. It is strengthened by the students' elaboration that they felt more challenged when they were given some questions to answer based on the materials they received. By doing so, they would be able to know their competence level and how they could keep up with the learning objective. They could also compete their score with their friends and that was what made them do the quiz seriously. The study by [11] also mentioned that adaptive testing is effective for improving students' motivation as its difficulty changes based on the materials they are learning. That is why giving quizzes is a suitable method for keeping students learning. On the other hand, though some students mentioned they need different forms of quizzes (not only multiple choices), meaning they are ready to learn more, some researchers afraid that students did the quiz only for getting a good score, instead of achieving the skills and incresing long retention. As mentioned by [12], this might happen as the complexity of the materials increase. Considering this interralated impact, educators need to customize the quiz form and difficulty level for each topic. They can also anticipate material loss by providing more than one quiz for each topic; such as quiz 1 is for terms drilling, quiz 2 is for relations between two or more concepts, and so on.

A study by [13] stated that online quizzes through e-learning seemed to be an effective formative assessment for distant learning especially when it can be done in some attempts as it increases students' understanding as well. Their research also figured out that instant feedback played a big role in keeping students motivated to do the quiz. The fact that the research participants were competitive could not be ignored as they mentioned that the lecturer always asked their quiz score during the synchronous learning. Though the quiz was just aimed to keep students practicing the materials, they found it a bit challenging as each of them wanted to get higher score than others. However, there are some research mentioning that online quizzes drag our focus to some things to consider. Peat et al. (2005) mentioned that online quizzes cannot merely guarantee that those who performed well in formative assessment would get high scores as well in the summative assessment. Quiz is mostly done in simple forms, such as multiple choices, drag and drop, matching, or filling the blank space with a single word. Those kinds of form require simple

way of thinking, in which students only need to answer based on the options the questions provide. On the other hand, summative assessment is mostly done in some forms, including multiple choices, filling in the blank (with longer words required), and essay. As it aims to measure students' understanding in the whole context of material, teachers usually ask students to analyze conditions and provide answers in a form of essay. This form of answer enables teachers to see how students think critically in understanding the questions using the theories, and applying them to answer questions. This kind of practice is essential for Gen-Z students as they would be able to enhance their ability in critical analysis, especially about cause-effect relation and problem solving. Aside from that, there is one more issue namely test integrity which becomes a concern from the online quizzes [15]. It is whether students do the quizzes on their own or they use several ways of help. Though participants mentioned that they did the quizzes individually, it cannot be confirmed that they really did it that way as the quiz is done online without supervision afterall. In order to overcome this, [16] proposed on her research, that institutions need to provide integrity guidelines and define consequences of cheating behaviours students may do. Considering this concern, the author highly recommend that the policy of integrity needs to be clear before the quiz is held. It aims to make sure that the quality of students' work truly shows their performance and therefore can be assessed in a fair way. Moreover, the guideline is good for Gen-Z students as they can make sure that their work is done with high quality and integrity.

In contrast to quiz, material delivery through e-book or pdf files turned out to be the least motivating activity from e-learning. E-book provides comprehensive explanations of concepts, many examples are also even stated along with the elaborations. However, this kind of activity is not a suitable one for Gen Z. As [9] mentioned that Gen-Z is accustomed to receiving instant information or entertainment. They prefer visuals than long texts, that is why they would choose contents in a form of videos rather than verbal texts. Visuals help them better in understanding the context of the topics discussed, especially when it is delivered in a form of video in which the sound is also provided in an exciting circumstance. It highly explains why Tiktok is more famous and becomes a go-to application for any topics. This fact pretty much explains why Gen Z students are still struggling with their literacy competence: they are used to accessing precise and quick information along with the visualization of what is explained. Reading identity is all about community, consumption, and access [17]. It is found out that Gen-Z is more likely to read through printed books eventhough they like online activities. This kind of social community influences them in reading. It can be inferred then, that millenials and elder generations need to build positive environment with reading culture to bring the exposure of reading to Gen-Z students. Besides, teachers need to consider traditional text, digital text, and pedagogical agents for Gen-Z as they perform differently in reading for pleasure versus reading for schools [18].

Eventhough discussion forum is not as motivating as quiz, it is suitable for maintaining students' participation and involvement in the online learning [19] and improvement on cognitive learning [20]. There are some benefits in conducting discussion forum, such as promoting intellectual support in a form of ideas, enhancing social interaction, connecting colleagues to clarify materials, and motivating them to the course content. A research by [21] also stated that online discussion boost students' conceptual understanding of knowledge and build strong connections between students and lecturers. Moreover, [22] added that discussion forum is beneficial to scaffold students' learning to counter the obstacle that teachers are unable to assess students' learning process in a distant learning. The fact that students do not have adequate experiences and are not ready with their skills [23] pretty much explains why individual assignment becomes less motivating than other activities. Hence, it is also interesting to note that interactive assignments contribute to satisfactory of course completion [24]. Looking at this fact, teachers may consider giving collective assignments to students, either they can do in groups or they can comment on each other's work. Additionally, in student-centered learning, teachers can also give students control on assignments by letting them choose the kind of assignment or the deadline [25], [26]. Moving to the material delivery through infographics, the score based on data cannot be considered low as it also performs high positivie feedback on the essay questions. It is proven by [27] that infographics improve the perception of educational content regardless of the language environment of students. It facilitates students with visual work to easily make them conceptualize and memorize the idea. Materials delivered through infographics are usually seen more concise and coherent [28] to keep students' concentration during learning, especially in a distant learning.

CONCLUSION

E-learning is a suitable tool for distant learning as it facilitates students with learning materials they can access anywhere and anytime. In order to create an effective e-learning there are activities educators must present to be done by students as those contribute students' understanding toward the materials. Among activities provided in e-learning, quiz appears to be the most motivating activity for Gen-Z for its easy access and quick feedback in a form of grade. On the other hand, materials delivered in a form of pdf file appears to be the less motivating activities as Gen-Z tends to receive instant information or entertainment. Therefore, considering the data and discussion, the writer highlights points that in designing online activities, educators need to pay attention to students' characteristics, either the procedure or the topics they like. Interaction between students and lecturers or peers need to also be built in online learning to create strong bonding that they are facilitated in learning together.

Acknowledgement

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