Jurnal Iqra'
Kajian Ilmu Pendidikan

E-ISSN: 2548-7892 & P-ISSN: 2527-4449

Volume 8, Number 1, June 2023

Responding to Trends in Digital-Based Classroom Learning: Efforts to Improve Learning Outcomes of Indonesian Millennial Students at Bengkulu University

Baryanto [1], Darmawanta Sembiring [2], B.M.A.S. Anaconda Bangkara [3], Khasanah [4], Aunurrahman [5]

[1] *Universitas Bengkulu, Indonesia*
[2] *Politeknik Penerbangan Jayapura, Indonesia*
[3] *President University, Indonesia*
[4] *Universitas Siber Asia, Indonesia*
[5] *IKIP PGRI Pontianak, Indonesia*

baryanto@iaincurup.ac.id

ARTICLE INFO
Article history:
Received
December 10, 2022
Revised
March 03, 2023
Accepted
May 08, 2023

ABSTRACT

Through interviews with several academic activities and campus management at the University of Bengkulu, we have managed to obtain several data which are also backed up by secondary data from the publications we reviewed to answer the study themes which aim to respond to digital-based learning trends in efforts to improve millennial student learning outcomes. The author understands that the trend of using digital in learning is familiar. However, to gain new knowledge, we try to get direct data through conversations with staff and decision-making at the University of Bengkulu. We can analyze the results of both the interview data and the review of various sources under a phenomenological approach, in which, among other things, we coded data and revised the data to interpret the data. The latest data contains elements of validity and reliability that can be relied upon. Based on the study's results and available data, the University of Bengkulu believes that digital-based learning is a practical, transformative, and productive solution to improving the learning outcomes of Indonesian students who are said to be millennials. These findings will provide new insights into future discussions of similar studies.

Keywords: *Digital Base Classroom, Improving Learning Outcome, Digital Classrom Learning*

How to cite: Baryanto, B., et al., (2023). Responding to Trends in Digital-Based Classroom Learning: Efforts to Improve Learning Outcomes of Indonesian Millennial Students at Bengkulu University. *Jurnal Iqra' : Kajian Ilmu Pendidikan, 8*(1). 24-36 https://doi.org/10.25217/ji.v8i1.2931

Journal Homepage: http://journal.iaimnumetrolampung.ac.id/index.php/ji/

INTRODUCTION

Adopting a computerized classroom learning method at Bengkulu University, Rejang Lebong is none other than an effort to hold millennial student colleges in Indonesia (Arkorful & Abaidoo, 2015; Putra et al., 2020). These efforts are part of the aim of improving learning outcomes. Learning such involving technology is a way designed to make everyday lectures easier. For example, mobile phones make it easier

for academics to communicate with one another (Arrieta, 2020; Putra, Mizani, et al., 2020). Laptops make it easier for students to do thousands of words per day of college work, and the internet allows them to connect to networks for daily data routines and find it less challenging to get data. Technology has had a significant impact on modern-day life and studies for both students and universities. To accelerate learning outcomes at Bengkulu University in Rejang Rebong Regency in an era of all technology for the millennial generation's teaching and learning process, we will discuss the role of technology that adorns academic activities, mainly digital trends-based learning. Currently, the word millennial age is no stranger to our ears. People born between 1980 and 2000 are considered millennial members (Weber & Urick, 2017; Nugraha et al., 2021; Suroso et al., 2021).

The generation currently studying at Bengkulu University is the millennial or digital generation. Millennials are the first to install computers in almost every home (Burstein, 2013). Members of the millennial generation are a generation that cannot live without computers, gadgets, and the internet every day (Wahyuningtyas, R., Rochanah, R., & Izatovna, T. S. (2022). Their need for internet access exceeds their need for food, sleep or play. The millennial generation can be distinguished from previous generations in the following ways: A generation that is open to change, accesses information more through digital media than print, pays more attention to images, graphics, colors, and music than text, and is content to do multiple tasks simultaneously (multiple tasks) the explanation, the millennial generation is a generation in which the internet and computers have a significant influence on every aspect of their lives (Fromm & Read, 2018; Nugraha et al., 2021). Then, what is computer and int internet function?. Technology in the education of the current generation?. For this reason, we are interested in examining what and how Bengkulu university academics serve the millennial generation in their daily activities in lectures with technological devices, often called computerized lecture classes.

Technology is a means of obtaining course subjects at universities today, where almost all required course information can be found on the internet (Sudarmo et al., 2021; Putra & Aslan, 2020). Students only need to enter the keywords they want to know into the search engine, and a few seconds later, we can find various websites, blogs, and alternative blogs that provide this information. This also applies to education. We can find much information about the subjects taught in elementary school to college by browsing. Because of this, students can learn more about the material they are studying before their teacher explains it in class. The existence of superior technology is greeted with a positive view as something new (Osiurak & Reynaud, 2020). Technology as a medium for extracting knowledge to accommodate the characteristics of the millennial generation, many universities are implementing new teaching and learning patterns nowadays. Understanding the topic from A-Z and students only listening and taking notes has become a two-way learning framework. In this case, the teacher functions not only as an employer but also as a facilitator to meet students' expectations and learn more about the subject matter studied (Chopra & Bhilare, 2020).

Technology in the classroom, which brings together tools to promote learning development, use of various applications, and information processing, has the primary goal of simplifying tasks and solving many problems of millennial children so that their learning outcomes increase (Allah, 2013). Because millennials have shorter attention spans, micro and nugget learning is integral to the millennial child's learning style. They prefer authentic learning with small content rather than going through

complicated lessons. Technology in college has enabled millennials to stay engaged and connected (Miller & Mills, 2019). This kind of learning process can be arranged by lecturers where millennial students are first asked to find material or subjects to be taught, understand it at home, and then participate in short class discussions (Driscoll dkk., 2012). Through this method, students can gain a deeper understanding of time; students cannot only rely on face-to-face conditions to exchange information; on the other hand, millennial students must meet in person before communicating. The academic community can communicate via email, SMS, instant messengers, and even social media such as Facebook, Twitter, Instagram, and Path to exchange information. The millennial generation favors this. Educating in this way in higher education can use this to distribute teaching materials or assignments that must be completed by students innovatively so that it is believed to improve lecture results (K. Seery, 2015).

The use of multiple multimedia in teaching allows students to access helpful content, communicate, and discover opportunities, all within their classroom (Attard & Holmes, 2022). Over time (Noor-Ul-Amin, 2013), various forms of multimedia in the classroom, such as laptops, videos, and online research, have been incorporated into standard educational technology. Study after study has reported that students who spend more time on social media sites tend to perform worse academically. This is because they spend time chatting online and making friends on social media sites rather than doing coursework (Dunne et al., 2010). Digital media is currently used in all academic and non-academic learning activities at Bengkulu Rejang Lebong University. Not only is the Covid-19 pandemic still ongoing, but the effectiveness of digital use is excellent. Whether it is the young millennial generation or not, all lecturers and educators must be able to use digital media to educate students so that learning continues smoothly. Teachers and educators utilize various digital learning media, such as Kahoot, Google Classroom, Microsoft Teams, LMS Canvas, Quora, Open Study, Lectora, Google Forms, Google Sheets, Zoom Meets, WhatsApp, and other similar applications (Aslan et al., 2020).

In contrast to the enthusiasm for using digital media in the first semester, student activity in the second semester has started showing a decreasing motivation to learn. Media saturation or boredom could be the cause. After careful examination, it turned out that students began to be negligent in completing assignments (Pawlak et al., 2022).

The use of technology in education has been beneficial for teachers to facilitate student learning. According to (Alghadir et al., 2021), in the 21st century, as people spend more time watching television and using computers, our culture is becoming more technological. In this regard, (Schleicher, 2012) emphasizes that one of the leading roles of today's 21st-century teachers should try to teach their students how to find and work with information. Here, when a teacher uses the media primarily for teaching purposes, he also indirectly teaches the media literacy demanded by the 21st-century era. Teachers train students to become successful information seekers who can adequately interpret the media content offered and know how to process information for their benefit. (Schleicher, 2012) underlined that the success of the teaching process lies in the understanding of changes in student learning styles and the readiness of teachers to adapt their teaching techniques. 21st-century students born in the digital era have their lifestyle, which has changed quite a lot from the previous generation. Groff, (2018) refers to these students as 'the NetGen' who are "usually visually literate, possess the unique ability to blend images, text, and sound in natural ways, and assimilate disparate information from multiple sources."

We can underline here that the internet determines the current generation's life as a means of learning. And the primary source of information. Most teachers cannot remain the same when facing students who have changed significantly in recent years. Ideally, teachers adapt their teaching techniques to the needs of students and the society in which they live (Brown, 2018).In this case, millennial teachers are theoretically considered capable of creating digital-based teaching media because they have high technological sensitivity, allowing them to capture technological updates and use them for any purpose.

On the other hand, using digital learning media helps teachers in all stages of learning. The recommendations are warm-up, presentation, practice, production, and conclusion. In addition, the learning process will be more interesting because educators will easily find information on the internet. Students can also study independently. Finally, digital teaching media can facilitate different levels of student competence (Stellefson et al., 2011).

Learning activities at Bengkulu University, Rejang Lebong, are currently using digital media in all academic activities and non-academic services; not only is the reason for the Covid-19 pandemic not over yet, but the effectiveness of this digital use is beneficial (Herawaty et al., 2018). Like it or not, like it or not, all lecturers/educators, both young millennials, must be able to use digital media as a means of education for students/students so that learning continues to run well. Various types of digital media for learning are used by teachers/educators, such as Kahoot, Google Classroom, Microsoft Teams, LMS Canvas, Quora, Open Study, Lectora, Google Forms, Google Sheets, Zoom Meets, WhatsApp, etc. Seeing students' activeness in the second semester has started to show a decreasing motivation to study, unlike in the first semester, the enthusiasm for using digital media. It could be due to saturation / bored using the media (Zheng et al., 2016).

After taking a good look, it turned out that the students/students were starting to be lazy doing assignments, namely LKS/LKPD, for teachers/educators when explaining and discussing with students/students using Google Slides or virtual via zoom. That is very interesting, but on the other hand, after finishing the discussion, some assignments must be done in the form of PG/Esai questions; here, you should be able to apply the form of questions using digital media that attract the attention of students/students, namely live worksheets, different from other digital media, such as Kahoot, google form seems stiff on a formal basis only in writing. It is challenging to make AKM questions, but in live worksheets, various AKM questions, namely numeracy literacy, science literacy, multiple choice, difficult multiple choice, drag & drop, and join/match, can be made. Enjoyable accompanied by pictures, sound, video, etc., so that student learning motivation increases because of the use of this media. Nowadays, both students/students and teachers/educators use cell phones to anticipate the habits of students/students in using gameplay applications. Teachers/educators also include learning applications to build a balance between playing games and learning daily activities day (Haryudin & Imanullah, 2021).

METHODS

This study aimed to understand how academics at Bengkulu University respond to the trend of using digital-based learning methods, whose reasons are to improve millennial student learning (Mikalef et al., 2018). Based on the belief in the effectiveness and innovativeness of digital application methods, the university is willing to provide information related to the views and responses of university management, especially

teachers, regarding their reasons and effectiveness for choosing to implement digital applications as one of the learning methods, they are often convinced of high learning productivity. The students are millennials who love technology-based learning (Bubou & Job, 2020). For this purpose, a series of data searches were carried out through interviews with several lecturers and also the management of the Bengkulu University so that we could hear their views and opinions as well as their reasons for choosing digital applications as a learning method that they were very proud of (Bubou & Job, 2020).

In the process of carrying out the first data collection, we compiled several questions related to the university's response to the use of digital technology to achieve learning outcomes. Furthermore, we tried to understand the purpose of this study and set what targets we would achieve when we finished implementing it. Then we try to develop ways to get respondents, and then we design our steps for interviewing. It is time for us to ask for a review of several academics who gave their voices related to understanding and motivation and the primary purpose of using digital applications in the universities they foster (Islami et al., 2018). After collecting data, we started interviewing, then we developed a report, which we analyzed under a phenomenological approach, including coding data, evaluating, analyzing, and interpreting data to make it easier for us to retrieve the company, which we believe is a valid finding because we believe we have answered the main problem of the study this (Waller & Fawcett, 2013).

We did two data searches, the first was interviews, and the second was visiting several data sources or literature related to learning issues using digital applications and millennial learning approaches (Creswell & Poth, 2016). In the final section, we design this study report which will choose a descriptive qualitative design that we believe is part of a literature review because we relied on several data from publications between 2010 to 2012 and added to it interview report data with several teaching staff and also Bengkulu university management.

RESULT AND DISCUSSION

In the results section of this study, a data report was presented from interviewing several academics at the University of Bengkulu, Rejang Lebong. Why is this report about how the response of academic activities, especially lecturers, to digital application-based classroom learning, which continues to be a trend, especially in millennial learning classes, is their effort to improve learning outcomes? The study will also discuss it in this section, reinforced by scientific evidence published on digital-based teaching applications in other academic contacts. All of our reports are designed in descriptive qualitative according to the results of interviews with teachers and students who are respondents to this study.

Multimedia in classroom

Starting our conversation with Bengkulu University teachers, we asked, can you explain what multimedia-based classroom learning or digital applications means for learning today?

> What we understand is the use of technology in learning at the university that we foster is when student classrooms have been facilitated with computer-based learning facilities using other devices such as tablets, smartphones, laptops, and the like, all of which are connected to the internet and in which we install several programs or software whose purpose is education to enable our

> students to learn more effectively, quickly and transformatively. Because such learning has become a demand at this time because the majority of our students are younger students who are categorized as the millennial generation who want to learn more independently and have more opportunities for them to collaborate, and even understand that learning in this era requires research-based learning so by the infrastructure that we provide is all kinds of computers and electronic devices connected to the internet which are to improve the quality of learning for students who are now young millennials, so that is what we feel is very important for us to present (P.01).

Based on the lecturers' answers regarding the question of understanding digital-based learning applications for students, they provided several arguments which the reasons included the use of technology in the form of digital applications for learning at Bengkulu university, including the ease and effectiveness of using applications are vital for learning, where the majority of students are ethnic groups. Millennial youth prefer to study and be independent when these learning opportunities are provided with various technological applications. Digital, which is now a trend in all tertiary education, especially in developed and developing countries, is slowly becoming a technology capable of innovating education and accelerating results. Similar results were also reported by Andi Hamzah Fansury, (2020), who said that digital applications are learning content for millennial generations in education and teaching English as a foreign language when the pandemic disrupted education. Likewise, (Astuti dkk., 2019), in their study "Digital Literature-Based Learning as an Optimization Effort to Increase Educational Values of Millennial Children."

Digital classroom benefits

Next, we asked what reasons and benefits the digital classroom at the University of Bengkulu provided.

> Regarding the advantages provided by digital-based learning technology, this is nothing new. However, as a millennial class, they are, on average, very creative, so we cannot fulfill the interests and creativity of these millennial students with technology; they may be more aggressive in learning. Another advantage of technology is that it increases knowledge. Millennials can quickly get information so that universities have no doubts about how to prepare students to become future workers, namely with the provision of creative learning and future opportunities based on education that will be real as well as technology will know how this university can be right -helping students improve learning outcomes according to the demands of today's era.. so we conclude that the benefits obtained from digital-based classrooms are creativity, access to creative preparation and learning with enormous opportunities. Also, this is the most strategic investment for the millennial generation (P.02).

When we asked about the benefits of the digital classroom, the lecturers answered convincingly that the reason for using the digital classroom is the principle of high creativity, being able to increase knowledge, and also access to information and communication so that the university can prepare future students with very innovative learning opportunities and this is a very effective future investment. Speaking benefits, in reporting this study, several studies have been reported, among others, by Andi Hamzah Fansury, (2020), in their study, namely a mobile-based learning model that is prepared for smart informants or with a holistic approach. Another study was also

reported in 2019 where according to technology education, namely facilitation for the millennial class, this is a demand for future-oriented education (Astuti et al., 2019).

Adopting digital learning

Talking about digital class-based learning in the millennial class is a conversation that cannot be separated from the goals and principles of digital application in learning. So for that, what is the real purpose of this Bengkulu university using or adopting digital learning in academic activities?

> As we all understand that the world has now progressed, the impact has skyrocketed after the presence of technology. Practically, digital teaching helps students develop new skills that did not exist before. However, along with advances in technology, the skills they get while interacting with this digital application give These students the skills and prowess needed today. The purpose of implementing the application in learning at the university that we are fostering is so that students become a generation that is responsive to technology, especially in today's government conditions. Their efforts to deepen their knowledge by seeking new skills and collaborating using technology applications in their teaching classes are essential (participant. 03).

Observing the answers given by lecturers at the University of Bengkulu regarding the purpose of implementing digital applications in lecture classes, we can understand that this application is because class students are millennials who are more enthusiastic and motivated when learning is supported by technology. Another goal is to familiarize students with working and studying with a variety of applications that exist today; it is believed that later they will be accustomed to using a series of digital applications which are not only helpful when they are still studying but will be helpful when they enter the world of work. In terms of the use of digital applications in this class has also been discussed by (Hashim, 2018) and supported by Widjaja & Aslan, (2022) whom both said that digital-based learning is a characteristic of learning that is driven and encouraged considering that the generation of understanding is millennials who are not far from technological activities.

Based on learning system flexibility

Digital-based learning is understood as flexible learning and able to develop more optimal learning outcomes compared to traditional learning. Our next question asks how far the based learning system provides flexibility.

> Learning that is in store by digital technology, we observe that this method is proven to be able to provide a better learning framework, especially for millennial students, where this method allows flexibility in many ways, including learning that will differ according to the needs of millennial students, whose typical learning does not expect the old ways (P.04).

It turns out that what was conveyed by several teachers at the University of Bengkulu, the flexibility provided by the digital sharing learning method in class has helped millennials to learn more practically and flexibly because they can study freely anytime, anywhere, in other words, the learning frame is more personal, live, meaning not bound by the old way of learning only when there is a teacher. Even that happens with minimal time, which is why this digital application is very relevant and highly encouraged in universities worldwide. Similar results were also reported by the findings of (Mursidi et al., 2021), who said that the online boarding higher education

system is an idea that is equivalent to the Islamic teaching service system for young millennials. Likewise, the findings of (Tampubolon et al., 2021). They say there are several reasons teachers believe in digital technology being used in the classroom to increase lecture outcomes.

Digital learning for the future

In the earlier part, you mentioned that digital learning is a millennial choice for entering the future. What does digital mean for the future of the lecture department you are fostering?

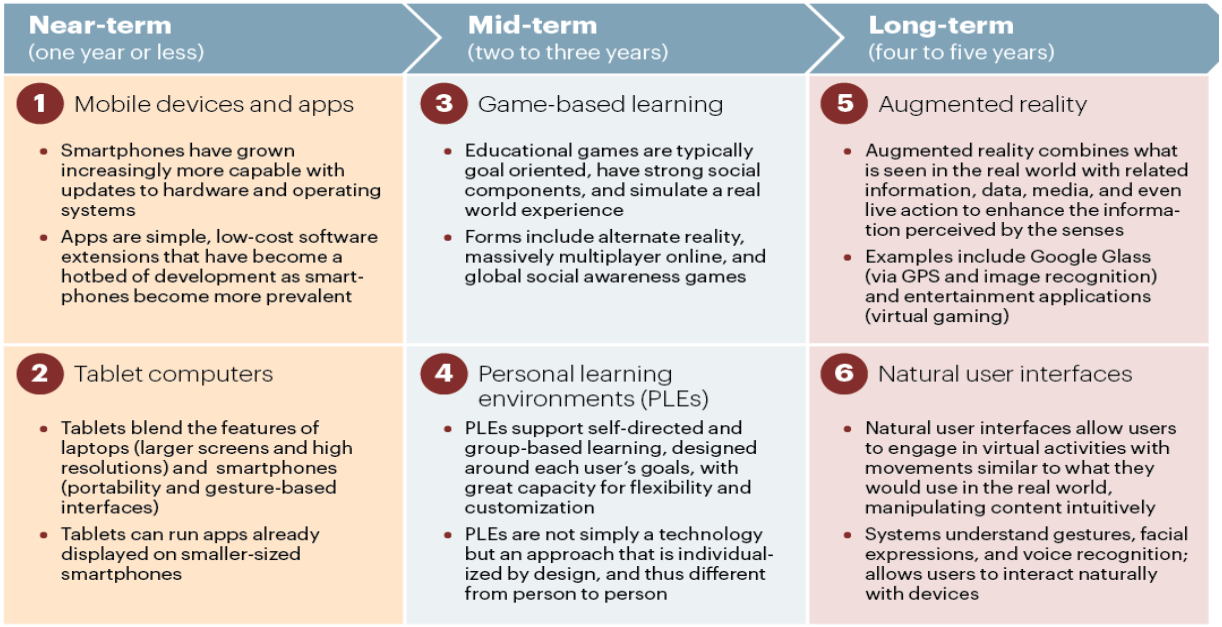
> We aim for the future of digital learning, also known as e-learning, which is very flexible, where students can study according to their choice and time. With this future learning method, it will help students organize their learning according to what they need, have a more personal life, and be more independent because it is very flexible; people also call it online learning, which is the choice of future students because the system is very innovative, and persona (P.05).

What was stated above is that digital-based learning at the University of Bengkulu intends for the future; namely, they intend future-oriented learning where students with this technology can set up and manage their learning more personally live so that they can achieve the desired learning in the future. With the flexibility provided by learning, the university believes that this digital learning application is innovative and transformative. Students are given a personal live system that does not force them to study as the university wants. Related to digital learning, pictures have also been proven (Katz et al., 2022). Similar results are also evidenced by future millennial learning systems with application applications (Crossley, 2017). The two authors agree that future learning is when students can make choices according to their wishes and aspirations for the future; what they learn today will be helpful (Hopkins et al., 2018). With learning innovations, teaching and learning activities can run smoothly, conductively, and creatively to foster students' enthusiasm for learning. Moreover, the achievement of learning objectives, in the end, can improve student learning achievement. Digital learning media or E-Learning allows educational institutions to reduce costs for teaching staff, classroom equipment, online training site rentals, and book printing. Educational institutions can present additional teaching staff for each class, print hundreds of books, and renovate classrooms. Digital media has made it possible for people to connect from all over the world. We can now communicate instantly, making it easier for us to build relationships and interact with people we would never have met before. There are many learning media that teachers can choose and apply in class, including interactive multimedia, digital video and animation, podcasts, Augmented Reality, Virtual Reality, and Game-based learning (Nurjanah, S., Dea, L. F., & Anwar, M. S. 2022). All these methods are now excellent for younger generation students who are increasingly millennials.

A series of discussions on the findings of studies responding to learning trends in digital technology-based classes is to improve learning outcomes for Indonesian millennials, especially Bengkulu University, Rejang Lebong District. So we can improve that a series of actions and studies that can be carried out that are relevant to broaden the above studies, namely by adopting a timeline of digital-based educational technology trends that can be carried out in the future, both for the short term in the future, medium term and even long term so that this learning trend can continue to be disseminated through various forms of study and discussion. Below, the trend of technology-based learning can be divided into three short-term, medium-term, and

long-term stages. Among other things that have been carried out, namely learning using applications and mobile on a base supported by the use of tablet computers, then it can also, for the medium term in the future you can, use game-based learning following the learning desires and choices of each individual. Proposes augmented reality learning and can be done in a natural user interface. All the excellent technologies in digital-based education that we have suggested strengthen the stability of trendy-based learning, which is very popular with the younger generation who are more millennial in learning and work activities.

Figure 1
Adoption Timline for Major Digital Education Technology Trends



Source: NMC Horizon Report 2012 K-12; A.T. Kearney analysis

We admit that this kingdom is not free from limitations, including the method used for the number of samples. Also, the data we present is only in a qualitative format, which should have data that describes it qualitatively. The number of sources only represented some universities, but we could only get around ten sources, most of whom were teachers and campus management at Bengkulu University. This is king. This requires exposure to quantitative data that illustrates how the laws of students and the strategies used by campuses to improve the quality of learning for Bengkulu campus students.

CONCLUSION

We conclude the results of this study with the aim of the study to examine the response of Bengkulu University managers and teachers, especially the adoption of technology as a teaching method to improve student learning outcomes in the millennial era. Through interviews with Bengkulu university teachers and managers, we have obtained several essential inputs regarding the reasons for and rationalization of using digital applications as a teaching method when higher education is being carried out in an era that is now all technological. We also obtained several pieces of

scientific evidence to support the results of this study. So this study produces a convincing level of validity and reliability. The results include that we can summarize that managers such as lecturers recognize the adoption of technology in the form of digital applications as learning media at the universities they manage is a consideration that this digital application is very relevant to be applied in classes where students are the younger generation of the millennial generation, they tend to do learning in an instantly innovative and full of creative power. On the other hand, university managers also admit that the reason for using digital applications to train millennials is that today's technology can prepare graduates who are ready for the future because typical technology-based learning does provide high effectiveness and productivity where technology allows these millennial students to learn and explore knowledge with getting what they aspire to with the power of technological innovation which is very beneficial for the personalization of student learning whose age is millennial. That is, among other things, what we have collected through a series of scientific evidence studies published between 2010 and 2022 and supported by data that we interviewed several teaching staff. The data we have obtained and our analysis supported by Budi Scientific in this field are valid; however, apart from the validity that we have obtained, this data also contains weaknesses and limitations. Therefore we hope for advice and constructive input to improve similar studies.

AUTHOR CONTRIBUTION STATEMENT

To those who have helped with funding and other techniques, we express our deepest gratitude, especially to donors from universities, currently the government of the Republic of Indonesia. Furthermore, supervisors and exceptional colleagues to the editor act as an authorship support service.

REFERENCES

Alghadir, A. H., Iqbal, Z. A., & A. Gabr, S. (2021). The Relationships of Watching Television, Computer Use, Physical Activity, and Food Preferences to Body Mass Index: Gender and Nativity Differences among Adolescents in Saudi Arabia. *International Journal of Environmental Research and Public Health*, *18*(18), Art. 18. https://doi.org/10.3390/ijerph18189915

Allah, N. (2013). Using e-learning as a tool for â€ education for allâ€™ in developing states. *International Journal of Science and Technology Education Research*, *4*(3), 38–46.

Andi Hamzah Fansury, R. J. (2020). Digital Content for Millennial Generations: Teaching the English Foreign Language Learner on COVID-19 Pandemic. *Journal of Southwest Jiaotong University*, *55*(3), Art. 3. https://doi.org/10.35741/issn.0258-2724.55.3.40

Arkorful, V., & Abaidoo, N. (2015). The role of e-learning, advantages and disadvantages of its adoption in higher education. *International journal of instructional technology and distance learning*, *12*(1), 29–42.

Arrieta, G. S. (2020). The experiences of junior high school teachers in online teaching and learning during enchanced community quarantine: Inputs for the learning continuity plan for the new normal in education. *Jayapangus Press Books*, 383–404.

Aslan, A., Silvia, S., Nugroho, B. S., Ramli, M., & Rusiadi, R. (2020). Teacher's Leadership Teaching Strategy Supporting Student Learning During The Covid-

19 Disruption. *Nidhomul Haq : Jurnal Manajemen Pendidikan Islam*, *5*(3), Art. 3. https://doi.org/10.31538/ndh.v5i3.984

Astuti, N., Fauza, H., & Yuhafliza, Y. (2019). Digital-Based Literature Learning As An Optimization Effort To Increase Educational Values Of Millennial Children. *Proceeding of The International Conference on Literature*, *1*(1), Art. 1. https://doi.org/10.24815/.v1i1.14402

Attard, C., & Holmes, K. (2022). An exploration of teacher and student perceptions of blended learning in four secondary mathematics classrooms. *Mathematics Education Research Journal*, *34*(4), 719–740. https://doi.org/10.1007/s13394-020-00359-2

Brown, K. D. (2018). Race as a Durable and Shifting Idea: How Black Millennial Preservice Teachers Understand Race, Racism, and Teaching. *Peabody Journal of Education*, *93*(1), 106–120. https://doi.org/10.1080/0161956X.2017.1403183

Bubou, G. M., & Job, G. C. (2020). Individual innovativeness, self-efficacy and e-learning readiness of students of Yenagoa study centre, National Open University of Nigeria. *Journal of Research in Innovative Teaching & Learning*, *15*(1), 2–22. https://doi.org/10.1108/JRIT-12-2019-0079

Burstein, D. D. (2013). *Fast Future: How the Millennial Generation Is Shaping Our World*. Beacon Press.

Chopra, A., & Bhilare, P. (2020). Future of Work: An Empirical Study to Understand Expectations of the Millennials from Organizations. *Business Perspectives and Research*, *8*(2), 272–288. https://doi.org/10.1177/2278533719887457

Creswell, J. W., & Poth, C. N. (2016). *Qualitative Inquiry and Research Design: Choosing Among Five Approaches*. SAGE Publications.

Crossley, A. D. (2017). *Finding Feminism: Millennial Activists and the Unfinished Gender Revolution*. NYU Press. https://doi.org/10.2307/j.ctt1ggjjdg

Driscoll, A., Jicha, K., Hunt, A. N., Tichavsky, L., & Thompson, G. (2012). Can Online Courses Deliver In-class Results?: A Comparison of Student Performance and Satisfaction in an Online versus a Face-to-face Introductory Sociology Course. *Teaching Sociology*, *40*(4), 312–331. https://doi.org/10.1177/0092055X12446624

Dunne, Á., Lawlor, M., & Rowley, J. (2010). Young people's use of online social networking sites – a uses and gratifications perspective. *Journal of Research in Interactive Marketing*, *4*(1), 46–58. https://doi.org/10.1108/17505931011033551

Fromm, J., & Read, A. (2018). *Marketing to Gen Z: The Rules for Reaching This Vast--and Very Different--Generation of Influencers*. AMACOM.

Groff, J. S. (2018). The potentials of game-based environments for integrated, immersive learning data. *European Journal of Education*, *53*(2), 188–201. https://doi.org/10.1111/ejed.12270

Haryudin, A., & Imanullah, F. (2021). The Utilization of Kinemaster Applications in the Making of Multimedia Based Teaching Materials for English E-Learning in New Normal (Covid-19). *PROJECT (Professional Journal of English Education)*, *4*(2), 341–352. https://doi.org/10.22460/project.v4i2.p341-352

Hashim, H. (2018). Application of Technology in the Digital Era Education. *International Journal of Research in Counseling and Education*, *2*(1), Art. 1. https://doi.org/10.24036/002za0002

Herawaty, D., Widada, W., Novita, T., Waroka, L., & Lubis, A. N. M. T. (2018). Students' metacognition on mathematical problem solving through ethnomathematics in Rejang Lebong, Indonesia. *Journal of Physics: Conference Series*, *1088*(1), 012089. https://doi.org/10.1088/1742-6596/1088/1/012089

Hopkins, L., Hampton, B. S., Abbott, J. F., Buery-Joyner, S. D., Craig, L. B., Dalrymple, J. L., Forstein, D. A., Graziano, S. C., McKenzie, M. L., Pradham, A., Wolf, A., & Page-Ramsey, S. M. (2018). To the point: Medical education, technology, and the millennial learner. *American Journal of Obstetrics and Gynecology*, *218*(2), 188–192. https://doi.org/10.1016/j.ajog.2017.06.001

Islami, X., Mulolli, E., & Mustafa, N. (2018). Using Management by Objectives as a performance appraisal tool for employee satisfaction. *Future Business Journal*, *4*(1), 94–108. https://doi.org/10.1016/j.fbj.2018.01.001

Katz, R., Ogilvie, S., Shaw, J., & Woodhead, L. (2022). *Gen Z, Explained: The Art of Living in a Digital Age*. University of Chicago Press.

K. Seery, M. (2015). Flipped learning in higher education chemistry: Emerging trends and potential directions. *Chemistry Education Research and Practice*, *16*(4), 758–768. https://doi.org/10.1039/C5RP00136F

Mikalef, P., Pappas, I. O., Krogstie, J., & Giannakos, M. (2018). Big data analytics capabilities: A systematic literature review and research agenda. *Information Systems and E-Business Management*, *16*(3), 547–578. https://doi.org/10.1007/s10257-017-0362-y

Miller, A. C., & Mills, B. (2019). "If They Don't Care, I Don't Care": Millennial and Generation Z Students and the Impact of Faculty Caring. *Journal of the Scholarship of Teaching and Learning*, *19*(4), 78–89. https://doi.org/10.14434/josotl.v19i4.24167

Mursidi, A., Kamal, M., Noviandari, H., Agustina, N., & Nasyafiallah, M. H. (2021). Virtual boarding school education management: The idea of equitable Islamic education services to the millennial generation. *Linguistics and Culture Review*, *5*(S3), Art. S3. https://doi.org/10.21744/lingcure.v5nS3.1790

Noor-Ul-Amin, S. (2013). An effective use of ICT for education and learning by drawing on worldwide knowledge, research, and experience. *ICT as a Change Agent for Education. India: Department of Education, University of Kashmir*, *1*, 13.

Nugraha, M. S., Liow, R., & Evly, F. (2021). The Identification of Online Strategy Learning Results While Students Learn from Home During the Disruption of the COVID-19 Pandemic in Indonesia. *Journal of Contemporary Issues in Business and Government*, *27*(2), 1950–1956. https://doi.org/10.47750/cibg.2021.27.02.205

Nurjanah, S., Dea, L. F., & Anwar, M. S. (2022). Development of Games Online Features Educandy to Children Aged 5-6 Years. *Bulletin of Early Childhood,* 1(1), 1-19. http://dx.doi.org/10.51278/bec.v1i1.398

Osiurak, F., & Reynaud, E. (2020). The elephant in the room: What matters cognitively in cumulative technological culture. *Behavioral and Brain Sciences*, *43*, e156. https://doi.org/10.1017/S0140525X19003236

Pawlak, M., Kruk, M., & Zawodniak, J. (2022). Investigating individual trajectories in experiencing boredom in the language classroom: The case of 11 Polish students of English. *Language Teaching Research*, *26*(4), 598–616. https://doi.org/10.1177/1362168820914004

Putra, P. & Aslan. (2020). Pengembangan Bahan Ajar Berbasis Imtaq Dan Iptek Di Era Revolusi Industri 4.0 Pada Mata Pelajaran Sains Madrasah Ibtidaiyah. *Ta`Limuna: Jurnal Pendidikan Islam*, *9*(1), Art. 1. https://doi.org/10.32478/talimuna.v9i1.345

Putra, P., Liriwati, F. Y., Tahrim, T., Syafrudin, S., & Aslan, A. (2020). The Students Learning from Home Experiences during Covid-19 School Closures Policy In

Indonesia. *Jurnal Iqra' : Kajian Ilmu Pendidikan*, *5*(2), Art. 2. https://doi.org/10.25217/ji.v5i2.1019

Putra, P., Mizani, H., Basir, A., Muflihin, A., & Aslan, A. (2020). The Relevancy on Education Release Revolution 4.0 in Islamic Basic Education Perspective in Indonesia (An Analysis Study of Paulo Freire's Thought). *Test Engineering & Management*, *83*, 10256–10263.

Schleicher, A. (2012). Preparing Teachers and Developing School Leaders for the 21st Century: Lessons from around the World. Dalam *OECD Publishing (NJ1)*. OECD Publishing. https://doi.org/10.1787/9789264174559-en

Stellefson, M., Hanik, B., Chaney, B., Chaney, D., Tennant, B., & Chavarria, E. A. (2011). eHealth Literacy Among College Students: A Systematic Review With Implications for eHealth Education. *Journal of Medical Internet Research*, *13*(4), e1703. https://doi.org/10.2196/jmir.1703

Sudarmo, S., Arifin, A., Pattiasina, P. J., Wirawan, V., & Aslan, A. (2021). The Future of Instruction Media in Indonesian Education: Systematic Review. *AL-ISHLAH: Jurnal Pendidikan*, *13*(2), Art. 2. https://doi.org/10.35445/alishlah.v13i2.542

Suroso, A., Hendriarto, P., Mr, G. N. K., Pattiasina, P. J., & Aslan, A. (2021). Challenges and opportunities towards an Islamic cultured generation: Socio-cultural analysis. *Linguistics and Culture Review*, *5*(1), Art. 1. https://doi.org/10.37028/lingcure.v5n1.1203

Tampubolon, S., Susanty, L., Khasanah, K., Wisman, W., & Riyanto, A. (2021). Understanding why teachers entrust technology in innovating the learning outcomes. *Jurnal Konseling Dan Pendidikan*, *9*(4), Art. 4. https://doi.org/10.29210/169000

Waller, M. A., & Fawcett, S. E. (2013). Data Science, Predictive Analytics, and Big Data: A Revolution That Will Transform Supply Chain Design and Management. *Journal of Business Logistics*, *34*(2), 77–84. https://doi.org/10.1111/jbl.12010

Wahyuningtyas, R., Rochanah, R., & Izatovna, T. S. (2022). Impacts of Gadget on Early Childhood Development: How to Solve the Addiction Gadget?. *Bulletin of Early Childhood*, *1*(1), 58-67. http://dx.doi.org/10.51278/bec.v1i1.411

Weber, J., & Urick, M. J. (2017). Examining the Millennials' Ethical Profile: Assessing Demographic Variations in Their Personal Value Orientations. *Business and Society Review*, *122*(4), 469–506. https://doi.org/10.1111/basr.12128

Widjaja, G., & Aslan, A. (2022). Blended Learning Method in The View of Learning and Teaching Strategy in Geography Study Programs in Higher Education. *Nazhruna: Jurnal Pendidikan Islam*, *5*(1), Art. 1. https://doi.org/10.31538/nzh.v5i1.1852

Zheng, S., Han, K., Rosson, M. B., & Carroll, J. M. (2016). The Role of Social Media in MOOCs: How to Use Social Media to Enhance Student Retention. *Proceedings of the Third (2016) ACM Conference on Learning @ Scale*, 419–428. https://doi.org/10.1145/2876034.2876047.