Optimizing Online Learning for Generation Alpha: Insight from Elementary Students in Malaysia

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ABSTRACT

This study aimed to explore Generation Alpha's online learning experience to serve as a gateway to identify emerging opportunity and trends that have arisen in online learning at elementary levels. This study was conducted through case studies with 18 elementary online learners aged 9-12 in Malaysia. The participants were recruited through a purposive sampling method. The samples had experiences in emergency remote learning and still engaged with some online lessons during the study. As the participants were considered a vulnerable population, research ethics was approved by the Research Ethics Committee UTM to protect the participants' dignity, rights, and welfare. The interview data was analyzed using thematic analysis. Six themes emerged from the findings, namely (1) teacher, (2) community, (3) course, (4) technology, (5) effectiveness, and (6) challenges. Through the lens of children, we found that elementary learners have higher demands and expectations for the online teachers. Fun, interesting and productive were the common characteristics of their favourite online teacher. To be successful in elementary online learning, the stakeholders have to put effort into engaging parents to pass the first screen, and double the effort to engage elementary learners to sustain the students' retention in online learning. This study provided details of children's online learning after the pandemic, which served as an opportunity for the sector to reimagine and re-innovate to create a more sustainable virtual learning environment.

Keywords
Generation Alpha; Elementary online learning

Introduction

An emergency shift in education format during the COVID-19 pandemic has opened a new chapter for online education at elementary levels. Numerous studies indicated that children had experienced varying degrees of learning loss due to the emergency remote learning during pandemic. The Asian Development Bank reported that Malaysia experienced one of the highest rates of learning loss among developing countries. These learning losses can affect children learning development, various strategies and solutions are needed to close the loopholes.

In order to find the best coping strategies, researchers explored children online learning experiences from different aspects. A study by (Zheng et al., 2022) covered primary school students' online learning experience found that only 12.8% of primary students preferred online learning. However, as worried that the children might not comprehend, the survey questions developed for the study were short and brief. The duration, course material and content in the children's online learning were not covered. A study by (Yan et al., 2021) covered a large-scale survey study of K12 students' experience of online learning provided evidence that online learning experiences were different across school years. The data of teaching content and pedagogy approach were not collected. The instrument employed for the study was the same across students from all levels, children at younger age might have difficulty to comprehend the meaning of each item. Studies by (Azzahra, Maryanti, & Wulandary, 2022; Setiawan et al., 2022) related to children's online learning problems and factors of interest were conducted in Indonesia using interview and observation method. Nonetheless, the samples of the studies were recruited from the same school, the participants' age was as young as Grade 1. The studies mentioned above provided details of barriers and drawbacks of online learning for children, but these studies focused on the experiences during the emergency remote learning of the pandemic. The findings during

pandemic might not able to represent the learning experiences in the wake of the pandemic when teachers, students, institutions and authorities were well-prepared. The online learning experience has not yet received scholars' attention, yet it is imperative for stakeholders for future evaluation and advancement. In order to keep up with the trend and changes over times, this study aimed to obtain insights into online learning experience among Generation Alphas as the first step of further action.

Literature Review

Out targeted population, Generation Alpha, refers to the population who were born between 2010 and 2025. In 2024, the eldest Generation Alphas were only fourteen years old. They are the group that has the most exposure to technology products in human history. Generation Alphas are often described as "digital natives". They grew up in a world where technology is ubiquitous. Screens are introduced to them early, serving as pacifiers, sources of entertainment, and educational tools. The screen-centric environment significantly influences the generation during their crucial formative years (McCrindle, 2021). As a result, they have shorter attention spans, get bored quickly (Apaydin & Kaya, 2020), struggle with self-regulation and focus on traditional classroom activities that do not incorporate technology. Research indicated that they have distinct perspectives on consumption, attitudes, social norms, and beliefs compared to those of the preceding generation (Cameron & Pagnattaro, 2017; Dobre, Milovan, Duțu, Preda, & Agapie, 2021; McCrindle, 2021; Priporas, Stylos, & Fotiadis, 2017). Many studies reported the common characteristics of Generation Alpha, including escapism, strong self-esteem and personality, individualism, emphasizing personal experience, desiring immediacy and convenience, and solid social demand (Apaydin & Kaya, 2020; McCrindle, 2021; Seemiller & Grace, 2018). Many educators commented that teaching Generation Alpha is complex and challenging due to their unique characteristics and backgrounds. It is imperative to develop and formulate a teaching and learning policy which is suitable for the new generation.

Since the beginning of the COVID-19 pandemic, there has been an influx of research exploring students' online learning conditions and experiences. A few major concerns were addressed, including poor internet connection (Basuony, EmadEldeen, Farghaly, El-Bassiouny, & Mohamed, 2020), insufficient devices and equipment (Bączek, Zagańczyk-Bączek, Szpringer, Jaroszyński, & Wożakowska-Kapłon, 2021), low learning engagement and motivation (Bray, Banks, Devitt, & Ní Chorcora, 2021; Thang, Mahmud, Mohd Jaafar, Ng, & Abdul Aziz, 2022), parental involvement to support online learning (Lawrence & Fakuade, 2021), students' readiness and literacy, and limited interaction opportunity. All the addressed concerns were helpful for practice and research in post pandemic era. As K12 online learning sector accelerated after all stakeholders acknowledged the advantages of online learning, we need new information about students' online learning experience, specifically elementary children, to sustain the rapid advancements and changes in the future.

Some studies asserted that not all students can succeed in online learning due to the characteristics of the learning environment and the student's ability (Bayanova et al., 2019). A significant gap between students of different socio-economic was observed in the findings. Students from higher socio-economic class reported receiving more support from family, higher attendance, better performance, and lower dropout rate (Alvarez-Rivero, Odgers, & Ansari, 2023). Implementing online learning at elementary levels requires parents to be learning supervisors. High parental involvement at elementary levels has prompted positive academic outcomes in online learning (Hapsari, Sugito, & Fauziah, 2020). Meanwhile, parents' biggest worries about elementary online learning were: (1) insufficient teacher support; (2) students' comprehension of the course material; (3) parent's burdens; (4) children's visual health; (5) children's self-regulation and motivation (Aboagye, Yawson, & Appiah, 2021; Baticulon et al., 2021; Dhawan, 2020; Lukong et al., 2020).

Studies indicated that elementary online learners relied more on their teachers than students at other levels (Yan et al., 2021). They preferred more teacher interaction and learning regulation support than learners at different levels (Yan et al., 2021). Students' satisfaction and perceived effectiveness were correlated to happiness indexes for the teaching and learning context in online learning (Zheng et al., 2022). Aligned with the result of previous studies, teacher-student interaction was the most significant factor that contributed to students' satisfaction (Alqurashi, 2019; Croxton, 2014; Cui et al., 2021; Horzum, 2017; Kuo, Walker, Belland, Schroder, & Kuo, 2014; Parahoo, Santally, Rajabalee, & Harvey, 2016). Teacher support and timely interaction (Burdina, Krapotkina, & Nasyrova, 2019), especially interaction through teacher facilitation, peers and parental involvement were the factors of online learning at elementary levels (Liao et al., 2021).

While research in K12 online learning is expanding vigorously, there remains a deficiency in empirical studies that provide evidence on enhancing online learning design and practices at elementary levels (Arnesen, Hveem, Short, West, & Barbour, 2019; Barbour, Moore, & Diehl, 2019). Most of the studies related to elementary online learning experience were assessed through quantitative methods, such as studies by (Cui et al., 2021; Yan et al., 2021; Zheng et al., 2022) this study aimed to explore online learning experience among Generation Alpha using qualitative method to gain insights of their online learning experience to serve as a foundation for future development, design and practices.

Methodology

This study conducted case studies with eighteen elementary online learners in Malaysia. The participants aged nine-twelve years old. The participants were recruited through advertisement on social media and online tuition chat group. All the participants had met the purposive sampling criteria: (1) had taken remote learning during pandemic, and (2) were still enrolled in online learning during the study. As the researcher was the manager of ROCZ Child Care Center, all the children from the children center were exempted from this study to avoid a conflict of interest. However, the children's siblings, friends, or classmates were given the right and freedom to participate in the study. The rationale for choosing children aged nine to twelve was that they could express their thoughts and experiences better than younger children. After receiving the consent from parents, the researcher interviewed the sample elementary online learners through Zoom application. As the participants were considered a vulnerable population, research ethics was approved by the Research Ethics Committee UTM to protect the participants' dignity, rights, and welfare (Approval No: UTMREC-2023-31).

This study employed a developed interview protocol to collect the data from case studies. The interview questions were developed based on The Community of Inquiry framework which explained the online learning experience formed by the interception of teaching, social and cognitive presence. The interview protocol consisted of six semi-structured and multiple follow-up questions. The Funnel Technique was adopted during in-person interviews with children. The common 'How' questions adopted for participants at other levels were not effective when interviewing children as they would probably give a simple answer, such as OK, K, or not bad. The Funnel Techniques employed in this study involved three steps, including (1) allowing the child to tell the whole story, (2) asking open-ended questions to develop facts, and (3) asking narrow questions to confirm facts. Various probes, such as stories, images, and short clips, were employed to generate more responses. Pilot studies were conducted to test the power of the interview protocol in collecting data. Five experts, including experts in educational psychology and qualitative studies, have verified the instrument to ensure its validity and reliability. Each interview session lasted from thirty to fifty minutes. Talkative children tended to share more than those who were introverted and shy. The whole interview session was recorded using a webcam. To triangulate the data, the researcher also observed some of their online classes to ensure the collected data were accurate and reliable.

Data Analysis

The contents from the interview sessions were transcribed. This study examined all the verbal and non-verbal interactions through repeated listening and watching recorded interviews. Subsequently, the transcripts underwent modifications for enhanced readability. The collected data were then subjected to thematic analysis. The NVivo 12 program also facilitated this analytical process. The whole analysis process was peer-reviewed by two co-authors as well.

Findings and Discussions

This study was conducted through in-person interview with eighteen children in Malaysia using case study method. The distribution of the participants was presented in Figure 1 and Figure 2.

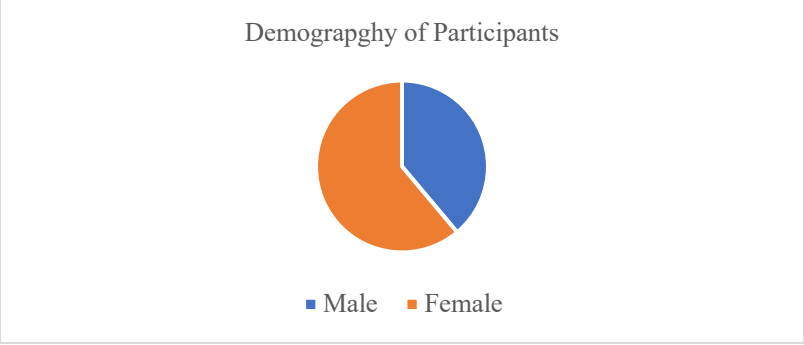

Figure 1. Gender distribution of participants

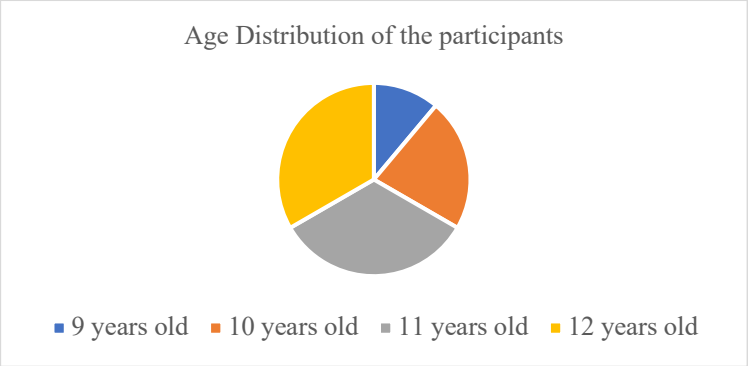

Figure 2. Age distribution of participants

Out of eighteen participants, eleven were female, seven were male. The participants aged nine to twelve years old. They came from different states in Malaysia. They had taken online learning since the pandemic and still engaged with a few online classes during the time of study. The subject taught in online learning including Babasa Malaysia, English, Chinese, and public speaking training course. The content of the online course was aligned with the syllabus of Malaysia Public Elementary School, except public speaking training course. All the participants in this study were anonymous. The participants were named with different code, where S1 referred to Student 1, S2 referred to Student 2, S3 referred to Student 3, and so on. The participants' demography information was presented in Table 1.

Table 1. Demography information of the participants in the study

Participants	Gender	Age	Number of online classes and subject taken during the time of study	States of Malaysia
S1	Female	9	2 (BM, English)	Johor
S2	Female	9	2 (BM, English)	Johor
S3	Male	10	2 (BM *2)	Perak
S4	Female	10	2 (BM, English)	Selangor
S5	Female	10	2 (English, Chinese)	Johor
S6	Female	10	3 (BM, English, Chinese)	Johor
S7	Male	11	3 (BM, English, Chinese)	Perak
S8	Male	11	3 (BM, English, Chinese)	Selangor
S9	Male	11	3 (BM, English, Chinese)	Selangor
S10	Female	11	2 (BM, Public speaking course)	Selangor
S11	Female	11	2 (English *2)	Johor
S12	Female	11	2 (BM, English)	Selangor
S13	Male	12	3 (BM, English, Chinese)	Kedah
S14	Male	12	3 (BM, English, Public speaking course)	Selangor
S15	Male	12	2 (BM, Public speaking course)	Penang
S16	Female	12	2 (Chinese, Public speaking course)	Penang
S17	Female	12	3 (BM, English, Chinese)	Malacca
S18	Female	12	2 (BM, Public speaking course)	Johor

Six themes emerged for Generation Alpha's online learning experience, namely (1) Teacher, (2) Community, (3) Course, (4) Technology, (5) Effectiveness, and (6) Challenges. Each theme was discussed separately in the following section.

Theme 1: Teacher

When elementary children were interviewed about their online learning experience, the core topic they talked about was their subject teachers. Their preferences for online classes highly depended on their teacher or instructor. They liked the lesson because they liked the teacher, and as they liked the teacher, they preferred the subjects to others. Their preferences for their subject teachers affect their views and attitudes towards online classes. In addition, their retention of online courses was also heavily dependent on their interest in the subject teacher. As mentioned by samples, they were motivated to attend the course and complete assignments when their teachers were interesting and productive. Alternatively, they would soon switch to another online course to get a better experience.

Based on the themes and coding, there were two types of instructors in online learning: (1) cheerful teachers and (2) boring teachers. The cheerful teacher was fun, engaging, used to share stories or jokes during online classes. The cheerful teacher tended to teach complicated content using ingenious and productive methods; as mentioned by one of the participants, the cheerful online teacher prepared props when giving instruction. The learners could always spawn new ideas through their teacher's behaviours and presentations. Meanwhile, the boring teachers were those who focused solely on giving instruction. The boring teacher tended to read slides more often and was the group of teachers who did not turn on their webcam when giving instruction. The participants revealed that they dislike the teachers who act impatiently by cursing and scolding them for their mistakes. However, they got more disengaged when the teacher ignored what they were doing. As one of the samples mentioned about his teacher:

She cannot be bothered if I played games during the class; I think she did not care if I was absent or left the meeting. (Student 14)

When the participants were interviewed about their favourite online teachers, the common characteristics shared by the teachers were cheerful, fun, engaging, caring and productive. According to the participants, the online teacher must creatively present the content and frequently interact with them to be considered their ‘favourite’ teacher. The interaction included asking them to read the slides or contents, answer questions, and give encouragement and appraisal. As some of the participants mentioned about their favourite teacher:

He shared jokes and made us laugh. The jokes made me remember the important point of the content. (Student 3)

I enjoyed the online class because the teacher praised me. I seemed performed better in online class than in school. (Student 5)

My teacher is very funny. I always look forward for her class. (Student 9)

Theme 2: Community

Through children’s sharing about their online learning experience, we noticed two extreme environments for online learning at elementary levels. For participants with good experience in online learning, the learning environment was dynamic and accessible. Students actively joined in open discussion as their teachers gave appraisals and rewards for participating in class activities. However, some participants mentioned that their online community was quiet and dull. Some teachers employed one-way communication approaches, and students were not allowed to interrupt and interact when the teacher delivered instruction. They had no chance to interact with their classmate. They knew each other names through the labels on the screen. Some students chose to turn off the webcam or turn it to the other side so their teacher could not see what they were doing. They did their things without responding to the teacher's questions. Most of them only answered questions when they were instructed. Only very few in online classes would initiate a question during synchronous online sessions.

Theme 3: Course

For course design, elementary online learners mostly agreed that the courses were well-organized and designed. All the participants commented that the content was very useful and up to date. They could apply it effectively in school. Some courses they enrolled on comprised an asynchronous online platform where they could review the recordings and download the presentation slides and notes. Nonetheless, most of the online teachers delivered assignments and notes through WhatsApp as it was easier, and more accessible for children. Both methods required the online learners to print and have a physical book in hands during the online lesson. Most of the online teachers assigned little or no homework to reduce parents’ burden. Almost all the assessments were done and discussed during the lessons. Some

online teachers organized online activities, such as quizzes and polling, to enhance teaching and learning in online settings. However, course design and organization were not dominant in elementary Generation Alpha. The participants focused more on the presentation of the teacher. As mentioned by the participants:

We could find all the interesting videos presented by teachers on YouTube. Some online teachers could even teach better and clearer. I like that teacher so I do his work. (Student 10, Student 12, Student 16)

Through the analysis of children's case studies, we summarized the details of the online course design and organization they've taken. The details of the online course were presented in Table 2.

Table 2 Details of the online course at elementary levels in case studies.

No	Design and organization	Details	Description
1	Course duration	60 – 90 minutes	Online teacher covered lecture, discussion, and assessment in each lesson.
2	Subject taught	Languages subject	The language subject taught included Bahasa Malaysia, English and Chinese, except public speaking course.
3	Class size	1-20 students	One of the participants joined 1 on 1 online lesson. The rest joined online class in a group.
4	Slides and notes	Provided by teacher	Slides, notes and recording were shared every time after the lesson.
5	Audio/ video lectures	Provided by teacher	Not all teacher prepared audio/ video lectures.
6	Schedule of the course	Once a week	Some online courses start at 2:30pm, one of the courses ends at 10pm.
7	Cost	RM8 – RM38 per lesson	Teacher collected fees before the lesson.
8	Asynchronous platform	One participant mentioned about Google Classroom	Most of the elementary online teacher did not employ asynchronous platform. The teachers shared slides, notes and recording using WhatsApp, Telegram and email.
9	Assessment	Provided by teacher	Soft copy of assessments shared by teacher before the lesson, students had to self-print the assessment.
10	Teaching approaches	Teacher-centered	Students mostly sit and listen without interaction. Students only join discussion when instructed.
11	Help desk support	Available in larger class and public speaking course	Help desk support was provided by the assistant teacher.
12	Trial class	Provided	Some teachers provided free/paid trial class for new students to explore the virtual classroom environment.
13	Assistant teacher	Provided in a larger class (20+ students)	Larger class provided an assistant teacher to act as a spotter.
14	Parental involvement	Compulsory	Online teacher frequently contacted parents to update the students' progress and performance in online class.

Theme 4: Technology

Based on the findings, elementary Generation Alpha is refined in implementing technology in their learning. They favoured instructors who could create interesting games or videos for teaching and learning. As they had experience in emergency remote learning, they were familiar with the common asynchronous online platforms and systems, such as Google Classroom, Google Meet, Zoom, VOOL, etc. They were the Tech Savvy, where they understood the uses of microphones, headphones and webcams. Most of them possess a laptop or desktop at home, which is used for online learning. They would use mobile phones or tablets when they were away from home and unavailable for synchronous online sessions. All of the participants mentioned that they rarely came across with internet connection problems. As the participants mentioned

A stable internet connection was a basic in online learning. (Student 11, Student 13, Student15)

According to the participants, the online teacher would ensure the students to have a stable internet connection before they enrolled in the online class. The findings might vary from other studies as the participants might had different socio-economic backgrounds.

Theme 5: Effectiveness

In this study, elementary students mentioned the effectiveness of online learning from their point of view. Some of them thought that online classes were less effective than physical classes as they preferred to learn and do while supported by teachers and friends. According to them, although they understood the content but they needed guidance to complete the assignments given by their teacher. Some participants mentioned they found it is difficult to focus in online classes because they were less disciplined at home. They would instead attend a physical class rather than an online lesson for effectiveness if given the option.

Meanwhile, some participants preferred online classes to physical classes because online classes are free and flexible. They could access the class content anytime, anywhere they like. From their point of view, online teachers could focus more on teaching and instruction than in physical classes, as there were fewer distractions in online classes. Online teachers did not need to handle any discipline problems as they did in a physical class. Through online learning, they could access better teachers from all around the country. The participants who took public speaking course mentioned they learnt public speaking from a famous voice actor in Malaysia through online learning. Hence, students felt that they learnt more in an online class. In addition, according to them, there was a classification of students' ability in an online class. The higher-ability students would be grouped to have so-called ‘advanced’ classes. Unlike in physical classes, all the students from different levels were arranged in the same class. These students perceived that they learned more and better in an online class.

Theme 6: Challenges

Participants revealed challenges they faced in online learning, such as eyesight problems, increasing screen time, self-regulation, low motivation, and parental involvement. As they were not monitored by the teacher when having online classes, they tended to lose focus and not pay attention as they thought every lesson would be recorded and could be reviewed any time they wanted. They needed more motivation to revise the recorded video after the synchronous sessions. Ninety per cent of the participants confessed that they never reviewed the recording video, even they missed the synchronous online sessions.

Almost all participants agreed that their screen time increased after having an online class. Eighty-six per cent of the samples admitted that they did have experience surfing the internet or visiting social media, such as Instagram or Tik ToK during online classes because the teacher could not see what they were doing. Twenty per cent of the samples confessed that they played online games during synchronous sessions. As they lacked the chance to interact with friends, they also chatted with friends through WhatsApp or WeChat during the online class. The situation worsened, especially when their instructor gave a long, dull presentation. All the participants declared that their online teachers used to contact their parents every week or month to update them about their progress and vice-versa. The online teacher followed up on the progress and gave comments and suggestions to improve the child's learning of the subject.

Discussions

Numerous studies have highlighted that inadequate and inefficient online teaching methods and strategies contribute to low levels of online engagement. (Chiu, 2021, 2022, 2023; Kurt, Atay, & Öztürk, 2022; Li, Jin, Edirisingha, & Zhang, 2021). Participants in online learning valued the support, reassurance, and guidance provided by the instructors the most (Farrell & Brunton, 2020). This is especially true when emotional engagement is the most influential factor in predicting learning satisfaction (Deng, 2021; Kucuk & Richardson, 2019), learning persistence (Yu, Huang, Wang, & Tu, 2020), and learning retention (Wu, Hsieh, & Lu, 2015) among young learners. Screen-based experience does not incorporate social interaction via live video chat destructively affected children’s learning (Gaudreau et al., 2020; Hassinger-Das, Brennan, Dore, Golinkoff, & Hirsh-Pasek, 2020; Lauricella, Aladé, Russo, Strevett, & Herdzina, 2022; Myers, LeWitt, Gallo, & Maselli, 2017).

However, the nature of the subject taught might be the cause of the two extreme communities. For language subjects requiring comprehension, vocabulary, and grammar application, the teaching method might differ from teaching subjects like science and mathematics. Furthermore, implementing online learning at elementary levels was not compulsory in Malaysia. Most of the online learning courses were offered by private institutions. When there is competition between institutions in the industry, the focus of the stakeholders might be more on the quality of the content instead of children's interaction and enjoyment in an online environment.

Most studies mentioned that not all children were suitable to learn online; through the study's findings, we concluded that not all teachers were suitable to teach online. Generation Alpha has had broad exposure to online elements since they were young, so they have developed certain habits in their daily online activities. A severe and professional presentation might seem dull to them. Instead of listening passively, children preferred online teachers who interact frequently with them. The findings were in line with the 'pathway to engagement' mentioned by (Trowler, Allan, Bryk, & Din, 2022), the new way to engage students must focus on the 'engagement interface' instead of the 'learning interface'. Engaging Generation Alpha in a virtual environment is far more challenging than the previous generation.

Teacher characteristics affect students' acceptance of synchronous online learning (Persada et al., 2022). Earlier study by (Aydin, 2005) mentioned that an online instructor had to possess some competencies of "acting". A study by (Chen, Ye, & Weng, 2022) argued that efficient knowledge transfer using creative teaching methods is more important in stimulating students' interest in learning. Successful online instruction necessitates instructors to possess expertise in communication, content delivery, technology, and pedagogy (Baran, Correia, & Thompson, 2011; Roddy et al., 2017; Saiyad, Virk, Mahajan, & Singh, 2020). Adopting more non-content-related practices than content-related practices in an online learning environment might be more effective in engaging elementary online learners.

Generally, online learning requires students to be self-motivated, self-regulated, self-directed, and have good time-management skills. Nevertheless, not all elementary students possess these skills. Some students face difficulty in keeping up with the coursework as they have to manage their own time and stay motivated to complete assignments. This is particularly challenging for children who are easily distracted. For self-disciplined and self-motivated students, online learning offered a better opportunity to explore and be exposed to better teachers worldwide. The findings aligned with studies that indicated that online learning might only suit some, especially elementary-level children.
Parents' perceptions of online learning have contributed to the challenges in online education (Hatta, Aristyagama, Yuana, & Yulisetiani, 2020; Isikoglu Erdogan, Johnson, Dong, & Qiu, 2019), especially at the elementary level. Many parents are not familiar with the technology and the online learning environment, which can make it difficult for them to support their children's learning (Dong, Cao, & Li, 2020; Koskela, Pihlainen, Piispa-Hakala, Vornanen, & Hämäläinen, 2020) Problems such as eyesight, increasing screen time and self-regulation might not be caused by online learning experiences but by everyday habits. However, when caregivers or parents encounter anxiety while watching children's misbehaviours at home, they send their children to physical classes instead of nagging and monitoring them. The skewness of parents' mindsets could be the major contributor to the challenges mentioned by elementary online learners.

Through the interview, we have some interesting findings in this study. All the participants in this study declared that they did not have a right to choose which online class to attend as the decisions were in their parents' hands. All kinds of advertisements on social media attracted their parents. However, if the parents noticed they were not engaged in the online course, their parents would choose another until they found the right one. Here emerged the critical issues in elementary online learning: the marketing strategy might focus on parents of Generation Alpha, yet the effort of sustaining the students' retention has to be focused on elementary students. The study of consumerism of Generation Z or the parents of Generation Alpha could be the gate to expanding online learning at elementary levels.

Conclusion

This study revealed online learning experience among elementary Generation Alpha. Six themes emerged through case studies with 18 elementary online learners aged nine to twelve. The themes emerged: teacher, community, course, technology, effectiveness, and challenges. The study's findings indicated that children's preferences for online learning entirely depend on their teachers. They presented a higher demand for teachers' ability, capability and attractiveness in presentation than the previous generation. A dynamic learning community helps to sustain children's online engagement. The course and content were not the main mean of online learning in Generation Alpha's eyes, they

favoured the teacher who can presented the contents in engaging and productive ways. The stakeholders in elementary online learning need different marketing techniques and strategies to attract children's parents before they assess the children. Mindlessly following children's preferences may not be appropriate from an educational perspective, but understanding the preferences and needs of children and parents is an essential survival skill in the relevant industry.

Limitations and Future Studies

This study adopted a cross-sectional design, which is merely a snapshot of the online learning experiences of eighteen elementary children aged nice-twelve. As they were young and immature, the experience and perception of elementary online learners would change over time. Although the current study drew samples from different state of Malaysia, the study in the remaining parts of Malaysia may vary in experience and perception. As the samples were recruited online based on the criteria of the study, the participants tended to have greater satisfaction for online learning. Hence, the findings could not be generalized to other population. Furthermore, most of the participants shared their experiences in language online classes, the experiences and perceptions of students who learn other subjects like Science and Mathematics might differ. Lastly, this study only focused on national elementary school students; learning experiences and perceptions in private or secondary schools will likely differ. Generation Alpha is different from the preceding generation. Their characteristics present the needs for today and the future. This study suggests modifying online learning for the elementary level. As the current research at the elementary level is limited and lacks details of implementation, the development of a suitable framework and practical online instruction practices is necessary to support online teachers in teaching and learning for future Generation Alpha.

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