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Teacher Perception of ICT and Alpha Generation Student

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Abstract

Teachers can address the global demand for technology-based teaching and learning tools and equipment to replace traditional teaching techniques by integrating Information and Communication Technology (ICT). In Indonesia, information, and communication technology (ICT) is regarded as one of the most critical components in the country's future development and success. As part of the present teaching blueprint, the Ministry of Education has embraced technology-based education and learning in its national curriculum (2013-2025). The goal of this study was to find out what teachers thought about the value of ICT integration in aiding the alpha generation's education and learning process. A survey was given to 107 Tangerang private school teachers at random. We used SPSS (version 26) to analyze the data from this quantitative study for descriptive and inference statistics. The findings of this study show that integrating ICT is beneficial to both teachers and students. According to the findings, adequate teacher preparation with ICT tools and equipment is one of the most critical elements for the efficacy of technology-based education and learning. In this study, we also discovered that teacher continuing education programs have a significant impact on increasing student learning quality. Other aspects of ICT integration need to be considered in future studies, especially from a management perspective, in terms of strategic planning and policy making for alpha generation students.

Keywords: *Alpha Generation, ICT, Teacher Perception*

Introduction

The term "generation" is often used for age groups. It classifies people of similar age groups based on the typical general characteristics of the time (Rogler, 2002). Generational values, beliefs, behavioral styles and expectations are reshaped by many ontological, cognitive and behavioral views that evolve with each new generation (Yalçn, 2020; Ünal, 2017; Bayhan, 2016). After 2020, those still employed by Generation X and Generation Y will gradually quit Gen Z, especially in the future the "Alpha" generation, which is radically different from its predecessor. Born in the age of the Internet, the alpha generation is well-versed in digital abilities (Dumas, 2020; Digitalage, 2018; Terzi & Boylu, 2017; Aka, 2017; Sterbenz, 2015; McCrindle, 2019). That, in this fast-changing world, generational gaps will widen, as will new generations' attitudes, expectations, and learning styles. In Industrial 4.0, the significance of reverse mentoring (RM) in Generation X and Y digital transformation is frequently recognized, and it is becoming increasingly popular in innovative R&D applications by industry groups such as banking, finance, telecommunications, and technology. On the upswing. Almost all sectors, including management, food, hygiene, petrochemical goods, and automated vehicles (Terzi & Boylu, 2019; Person, 2018; Kadılar, 2017; Keleş Tayşir & Ülgen, 2017). Besides that, the Global Digital Report

(2018) has amazed many people. Several variables related to internet use in Indonesia also attracted attention. First, from the side of the device *(device)* used to access the internet. Of Indonesia's 132 million internet users, 60% use smart phones (smartphones) to access the internet. This fact is confirmed by facts in society. Nowadays it's so easy and cheap for people to own a smartphone. Technology has become a part of their lives and would not know the world without social networks. Alpha children have been acquainted with smartphones since infancy, and do not see them as tools. Technology will just be integrated in their lives. They are so easy to operate a smartphone that looks complicated to Mama (??), and they prefer it to a laptop or desktop computer. They are also interested in a visually appealing and easy-to-use application, and hope that everything is built according to their needs.

Based on these data and facts, it can be concluded that how massive the development of digital technology is in Indonesia. Although the survey conducted did not reach young children, the facts in society show that children are very close to the digital world. Do not be pessimistic. We still need to be optimistic that the digital world will provide many benefits that are able to develop aspects of early childhood. Especially when faced with the challenges of 21st century education. Literacy of technology, information, and communication is one of the skills needed by alpha generation.

Under these conditions, 21st century teachers must understand that students who are taught are students with different conditions, while the majority of teachers in Indonesia are teachers born in different generations. Of course, this gap must be faced with changes in thinking patterns and contextual understanding. From the results of a survey conducted by researchers, the majority of teachers do not know and do not understand about alpha generation. Meanwhile, Rahmatiah & Asiyah (2019) stated that the government We are facing major challenges trying to maximize the use of technology in education. The intergenerational gap between current teachers and students encourages teachers to use technology as a catalyst for the success of their teaching and learning processes. “I'm an immigrant.” This gap affects how technology is perceived and adapted. Students can acquire all the necessary skills without the help of teachers, but if teachers lack digital skills, new types of educational problems, including barriers, arise. For this reason, teachers today need to be aware that children need to be tech-savvy. This situation is of course very worrisome. Teachers cannot always force the will to teach in a way that suits their generation. In this context, the main aim of the author of this study is to be able to develop professional teachers for the alpha generation.

Literature Review

Generation Alpha is the next generation of Generation Z. The first generation of this century, which includes those born in the twenty-first century, is known as Generation Alpha. In 2015 research of the post-Z generation, McCrindle discovered that participants dubbed this group "Generation Alpha." (cited in Nagy & Kölcsey 2017). This generation was called "Homotabletus" by Stefanov, Terzie and Banabakova (2018). This generation is said to have been born between 2010 and 2025. Babies and unborn babies make up the alpha generation. The Alpha generation, which began learning from an early age, grows into a more educated generation than other generations. The entertainment and education of this generation is highly screen dependent. It also reveals over time what kind of code can be generated for global decision makers in relation to screen exposure. When the oldest of this generation was born in 2010, the iPad came to the market, Instagram took over social media, and "apps" became the word for this year. As a result, previous generation fixed-screen experiences couldn't handle fluid, fully mobile experiences.

This generation is known for screening personnel. The digital environment in which they are born is the most important aspect of this generation. Your daily life is influenced by technology, parents, trainers and other social contacts. For this generation, the concept of "connection" is significantly more crucial than it was for earlier generations (Tootell, Freeman & Freeman, 2014, p. 82). In general, the advantages of this generation can be summarized as screen reliance and the world of touch screens. Carter (2016) found that this generation prefers to communicate visually with photos and voices rather than typing text and needs to pay more attention to the dirty privileges of their parents. He went on to say that this generation is tech-savvy. According to Barkowitz (2016), Gen Alpha is creative, and according to Liu, Zhu, Holroyd, & Seng (2011), despite its close relationship with online learning, Gen Alpha learns longer and grows faster with technology. According to previous research, this generation is surrounded by material conceptions and has a high ability to solve problems and solve problems. The properties of the alpha generation as described in earlier study are as follows: (Schawbell, 2014; Barkowitz, 2016; Ramadlani and Wibisono, 2017).

Table 1. The characteristics of alpha generation

Schawbell (2014)	**Barkowitz (2016)**	**Ramadlani ve Wibisono (2017)**
• Entrepreneurial • Technology – geek • Social networking is their world • They tend to do online shopping, their preference • They rarely come into contact with humans during communication. • They are very spoiled by their X and Y generation parents. • They are strongly influenced by Generation X and Generation Y parents • There is an advanced skill set to complete Challenge • They are better educated • They are self-sufficient	• They don't like sharing things • They are pretty mobile • Their privacy is not important, they have a high narcissistic nature and exhibitionistic tendencies. • They don't follow rules • Dislike any boundaries • Healthy life is their choice • They like carbohydrates • Eschew organized religion • They do not like excessive consumption. • They did a reusable remodel • They like to overcome sensational things • They repeat the same things for joy • They don't do multitask. • They live in the now and want rapid gratification. • They keep making changes	• Because they have easy access to information, people, and Power Age members, they have a strong entrepreneurial spirit. • There are knowledgeable about technology, and they keep updating their information about it • Social media is their resources to gain trust • They prefer online shopping than offline shopping • They rarely do physical contact for communication • They are still able to communicate via social media, but they show lonely behavior • They are spoiled by their X and Y generation parents • Their parents, who are from Generations X and Y, have a big influence on them • They are capable of facing big challenges • They are self-sufficient • They handle with environmental and social problems

In contrast to Berkowitz, Ramadhani, and Wibisono's negative views on the Alpha Gene, Schawbel has a positive view of the Alpha Gene saw quite a few opportunities and problems with Gen Alpha. Nagy and Kölcsey (2017) found that quality associated with the alpha generation includes predictions or estimates after a critical assessment of the alpha generation. Meanwhile, Bennett, Maton and Kervin (2008) claims that the alpha generation is another generation of "digital natives," and that dramatic reforms in education are required to fulfill the needs of "digital natives." increase.

According to Nagy and Kölcsey (2017), we need to understand more about Generation Alpha because its name and identification are mostly for commercial interests. There is no comprehensive investigation of alpha production in the literature, according to Nagy and Kölcsey (2017). In this regard, the purpose of this research is to provide knowledge on alpha creation. Furthermore, the goal of this research is to learn more about the Alpha generation, including how to distinguish it from the digitally integrated Generation Z, parent profiles, and differences in teacher education management practices in the classroom.

According to Carter (2016), about 9,000 Alpha children are born each day in the United States. He also said that children under the age of 12 had an annual impact of $ 130 to $ 670 on parental purchases. The American Alpha generation is projected to reach 35 million by 2050. This scenario is consistent across Turkey. According to the address-based population registration system & # 40; ABPRS & # 41; According to the results of the Turkish Institute of Statistics (TSI) in 2017, the population of the alpha generation will reach 26 million in 2040, which is the national population. Equivalent to almost 26% of. As you can see, we need to create an education plan for the Alpha generation. According to Prensky (2001), most teachers in the current order lack the technical fluency of the Alpha generation, and their skills are virtually completely unknown. According to Prensky (2001), most teachers in the current order lack the technical fluency of the Alpha generation and are almost completely unfamiliar with the skills they possess. The gap between Alpha generation's technical skills and interests and the simple and limited use of technology by educators can lead to alienation and dissatisfaction among students (Prensky, 2009). Addressing these challenges requires professional growth and evaluation in curriculum, pedagogy, and teacher training. Therefore, this study can be used as a starting point for policy making in the field of alpha generation.

Method Study Design Data received from all respondents in this study were collected and analyzed using quantitative methods. Before sending a survey to a specific set of people, researchers plan and create it. Several sections of the questionnaire were created with the intent of answering the study questions about how successful students' ICT integration is in learning and the features of effective ICT integration in Tangerang's private schools. As a result, a survey was sent to respondents to collect data.

Method

A total of 43 survey questions were utilized in this study to analyze the efficiency of ICT integration in teaching and learning in Tangerang public schools. A total of 107 questionnaires were distributed, with all respondents reading the statement, 4 = disagree at all, 3 = disagree, 2 = agree, 1 = completely agree, a completely closed 4 Likert scale. I was asked to answer in. The questionnaire was divided into four parts. The demographic background of the respondents is included in Section A. This includes gender, race, educational experience, school type, school district, preferred teaching and best academic performance, and the ability to use ICT in the classroom. The other three sections mainly deal with teacher awareness and factors of effective

ICT integration in schools. Section B contains 15 questions about the perception of ICT teachers in the classroom, Section C contains 10 questions about the effectiveness of student ICT integration in learning, and Section D contains in the classroom. Contains 10 questions about the effective elements of ICT integration. This quantitative survey questionnaire has been adapted and modified from the original Gulbahar & Guven (2008) questionnaire deemed appropriate for this survey. Some objects are designed and developed by researchers according to the title you choose, so the developed items can answer both research questions.

The Social Sciences Statistics Package (SPSS) version 26 was used to aggregate and evaluate all of the data obtained from respondents. The data was analyzed using descriptive analysis and inference. The frequency and proportion of people with different demographic backgrounds were studied using descriptive analysis. It's also utilized to measure the success rate of students' ICT integration learning by calculating the mean, standard deviation, frequency, and percentage and the effective characteristics of ICT integration in private school classes that is located in Tangerang.

Results

Because the alpha generation is also the generation that grew up when technology was developing very rapidly, they needed a balance between being individuals who were competent in technology but also had to have emotional intelligence. Teachers must be provided with a good balance for the teaching of alpha genes. More learning in the field of experience than in academia They are a generation that adapts quickly and is open to learning. Therefore, we must be able to provide explanations with simple analogies or concrete examples that can be heard, touched, seen, or felt by their five senses. In addition, from the beginning we must help children develop or explore their interests and talents. In my opinion, to face the Alpha generation, we must show an attractive learning visualization, and follow the latest "trending" developments according to them, and the learning process uses "Active Learning", students are given the freedom to express and display their opinions and skills in front of the class and provide space for them to experiment with the topics we are teaching so that they can be more creative but of course we have to give clear and firm rules. Teachers must be more competent and more active and creative in the learning process related to ICT. All systems to support the learning and teaching process must be fulfilled properly, especially with technological advancements like today, schools should be a means/place for students to explore and express themselves so that schools are able to be creative, tough, and able to answer people according to their needs with the needs of generations.

Generation Alpha is a generation that was born in a situation where technology is developing fast, so it is necessary to use technology facilities to be more communicative. Using a hybrid learning pattern, between using technology and conventional methods, the strategy that can be used is to learn more and more about ICT / Technology and introduce the teaching of education to students. The alpha generation is very familiar with ICT, so for the balance it is necessary to instill a lot of education about character: religious education, manners, socialization, educational gadgets and the provision of limits on the use of gadgets. In addition, we provide more contextual learning to everyday life so that it trains their critical thinking power. Makes the atmosphere not stiff in learning. Better mastering ICT so that it is easy to educate and direct the alpha generation to become a smart, independent, and responsible generation. Learning strategies for the Alpha generation: a combination of literacy, numerization, projects, presentations. Learning Strategy Alpha generation must provide interesting visualizations because the alpha generation is an active generation, so that interesting visualizations can attract

students' attention. Teachers are also obliged to facilitate students because they can think critically and logically. The teacher must also provide clear rules in the classroom. Interesting learning supported by maximum class management using technology and emphasizing good character.

Teaches Collaboration with all subjects to empower collaboration, creativity, and responsibility, accompanied by directions on Moral, Ethics / Courtesy, Teaches about the importance of Processing and opportunities for Big Data Use attractive visualizations. A generation that cannot be separated from technology in every aspect of their lives the current one and the use of IT modifications to existing methods. Generation Alpha requires learning with interesting visualizations that stimulate children to experiment, think critically and logically modifying learning methods. Therefore, the abilities possessed by children are trained as a whole teachers must be creative, able to accept change, and able to adapt to technological advances by understanding learning methods and students' ways of thinking so as to create a harmonious relationship between teachers and students. Using ICT, and learning hots that are creative and fun 5M, namely: 1. Interesting (Children will only leave the game in the gadget if there is something more interesting than the game itself). 2. Giving Benefits, 3. Sharpening children's thinking skills by applying HOT (Higher Order Thinking) skills 4. Training children to be independent (tasks can be done by children themselves) 5. Glorifying God. (The root of all knowledge must be fear of God), collaboration between technology and teachers, learning strategies are more interesting, more lively, and children understand better.

Discussion

The findings of this study demonstrate that technology-based education and learning are more effective than traditional classroom education and learning. This is because the usage of ICT tools and equipment in the classroom makes the learning environment more appealing and successful for both teachers and students. These findings are also in line with Machos (2005) research, which found that the usage of ICT in classrooms promotes student learning. However, the majority of the teachers in this study stated that ICT helped them manage their classrooms by keeping students' conduct and concentration under check. In addition, the study found that using ICT makes lessons more attractive and engaging, allowing children to learn more effectively. As a result, participants agreed that integrating ICT would allow children to learn more effectively.

According to a study by Zhang (2013), the usage of the Internet in education and learning, instructors have a good attitude toward the use of the Internet in education and learning both inside and outside the classroom. The teacher is familiar with using the Internet for teaching and learning purposes. Teachers have a thorough understanding of ICT and network technology. Similarly, the claims are in line with the findings of this survey, which indicated that most teachers believe that integrating ICT into the classroom is beneficial to student learning. As their knowledge paradigm expands, ICT empowers students to be more creative and imaginative. When students can gain crucial information and knowledge at the same time, ICT aids in the acquisition of all four learning skills. Teachers in public schools in Tangerang, Indonesia, have not been given enough time to learn about and use ICT to its full potential, according to this poll.

A study by Tazci (2011) found that most preschool teachers use only basic ICT tools for educational purposes, but this study found that ICT integration is effective for most teachers. However, it turns out that the ICT tools provided by the school are inadequate. Or in good

condition; teacher education and training is not properly provided. Technical support will be provided but may improve over time. And not all teachers believe that ICT integration is effective.

To get the most out of ICT for teachers and students, the first steps of implementation must be successful. As a result, proper implementation, and the need for assistance from school owners are the first steps in preparing education and learning for technology-based learning. ICT integration in schools will be a big success and help both teachers and pupils if the process of introducing technology integration into schools is done correctly from the outset and ongoing maintenance is guaranteed to be effective and successful. Before adopting ICT for teaching and learning in the classroom, teachers should be completely comfortable with it and have time to study, investigate, and go through the "trial and error" phase.

Finally, in order to improve the national education system's capabilities, the integration of ICT into the classroom must be carefully studied. This will aid in improving the national education system's global ranking and the development of a better future workforce. The government must improve and influence teachers' perspectives about ICT integration in order to boost the usage of ICT in the classroom. Teachers are crucial in ensuring that new policies are implemented successfully and efficiently in the classroom. To drive change, both at school and at home, advanced technology assistance and communication tools must be available to children everywhere. To promote effective learning and meet the requirements of the 21st educational skills.

Conclusion

ICT integration issues and barriers may be too common, However, further research into the incorporation of ICT in basic education curricula is rarely covered. It would be beneficial to get a better understanding of the barriers and challenges that instructors face while using ICT in regular schools for teaching and learning. Instead of focusing primarily on public schools, it is also recommended that this study be conducted in three important schools in other areas. This is due to the fact that certain schools may have more resources, allowing ICTs to be used more quickly and easily. Using the positive side as an example, it would be beneficial to be able to make comparisons between different schools to change the identified problem.

Furthermore, comparative studies of ICT integration in education and learning across public and private schools are highly encouraged and should be pursued further. This is due to the fact that most private schools allow students to bring their own devices into the classroom, making the educational and learning process even more dynamic. The results of ICT integration in these public and private schools are fascinating to examine and contrast.

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