Native Digitals and Parental Adaptation in the World of Education

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ARTICLE INFORMATION	ABSTRACT
Keywords: Learning; Generation Z; Native Digital.	IT-based learning is a concept that has been around for a long time in the world of Indonesian education. In fact, information technology has penetrated various educational domains, from higher education to early childhood education. However, what is of concern is the extent to which the use of IT is implemented in the education sector. This research is needed because today's students are Native Digitals and Gen Z or the millennial generation and are also sometimes known as the quota-eating generation. Teachers and school elements need to think about and take real action in implementing IT implementation in learning. This research was conducted using a quantitative research paradigm. Where this research examines a certain population or sample and collects data using a research instrument in the form of a questionnaire. The data analysis carried out was quantitative deductive. This research was conducted on students and parents of classes 7ICP, 7A, 7B, and 7C at SMP Muhammadiyah 12 GKB Gresik with a total of 84 respondents who filled out the questionnaire out of 123 total respondents. The results of this research were that 68.29% of respondents cared about the learning improvement process. 60.7% of students were happy and 23.8 students were very happy with online assignments which was in line with 69% of students' parents being happy with online assignments. The response of being happy with PTS Online was 33.3% while very happy with PTS Online was 29.8%, a smaller percentage than Online Assignments. 69% of students' parents are happy with Online Homework.

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INTRODUCTION

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The millennial generation is a generation whose life cannot be far from gadgets which are full of very up to date information. Today's junior high school students are people who belong to the millennial generation, which is also known as the quota-eating generation. Not just up to date information but also applications related to their daily lives, especially the implementation of IT technology related to social life. Today's young people can easily access anything, even lodging services and transportation services which have sufficient privacy value.

Information technology, which has very varied content and facilities, can of course be used for positive or negative activities. Ways to direct the use of information technology in positive ways can vary greatly. Many parents complain that their children can't stay away from gadgets. Parents respond to this with various actions, starting from ignoring it, giving advice to their children, scheduling the use of gadgets and even prohibiting the use of gadgets. All of these actions are of course determined by the conditions of parent-child interaction as well as household conditions. The conditions of today's children occur in various aspects of their lives, both at home, school and society.

In society, the effects of advances in information technology have become unstoppable, especially the negative effects. Starting from the existence of pornography, hoaxes and hate speech which cause socio-political turmoil in society, especially the younger generation. The government's preventive regulations related to reducing the negative impact of social media include criminal regulations and several outreach programs regarding the wise use of social media.

School is a place to galvanize students physically and mentally in facing the lives of today's students who are generation Z. However, the big problem is how to galvanize generation Z who has experienced an extraordinary leap in time. The current generation is experiencing the era of Industry 4.0. Educators in schools consist of different generations, from Generation Z to the Baby Boomers Generation, who have to work hard to adapt to Generation Z students. The education system in Indonesia has responded to this with the emergence of IT implementation in education, such as the UNBK (Computer Based National Examination).), reporting and staffing systems using an online system. This is done for various reasons and considerations, of course with varying adjustments.

Muhammadiyah 12 GKB Middle School, one of the superior schools, responded to this development by implementing IT in learning. Schools do not just force the implementation of IT on students and their guardians, but also educate so that students and parents can accept and make good use of IT developments, especially in the field of education. Education carried out by schools to students and parents regarding IT implementation is to use IT as a learning tool to simplify and optimize learning processes and outcomes.

From the description above, the problem formulation in this research is (1) How much attention do parents pay in the process of improving children's learning? (2) How do students respond to independent online assignments? (3) How do students and their guardians respond to the Online Mid-Semester Assessment (PTS) which is controlled in class? (4) How do students' parents respond to online homework? From the description above, the objectives of this research are (1) To determine parents' attention to the process of improving children's learning. (2) Knowing students' responses to independent online assignments. (3) Knowing the responses of students and their guardians to the Online Mid-Semester Assessment (PTS) which is controlled in class. (4) Knowing the response of student parents to online homework.

This research aims to create appropriate formulations and steps to prepare society to use IT in positive areas in the field of education. The parties involved are parents, students and teachers. It is

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hoped that advances in information technology will be very beneficial by increasing positive effects for all parties. Utilization of Information Technology can be wiser and more civilized in improving the nation's knowledge and morals.

METHOD

This research was conducted using a quantitative research paradigm. Where this research examines a certain population or sample and collects data using a research instrument in the form of a questionnaire. The data analysis carried out is quantitative. Meanwhile, the approach used is a deductive approach in quantitative research.(Anon n.d.-b)

The research began at the beginning of the 2018 – 2019 academic year specifically in classes 7A, 7B, 7C and class 7 ICP. Naturally, science-physics material is given to students by referring to the 2013 curriculum which is supplemented with several supplementary materials from various sources. Learning begins with strengthening the material in class and practicum in the laboratory so that children not only understand but also experience it. The hope is that this way the material can be understood from various angles and will be impressive for students, so that the material provided will continue to stick with students.

This research was conducted by prioritizing optimal learning. When the materials have been provided, students receive evaluations in several forms including homework assignments which can be accessed online, materials in softcopy form which are shared on student social media groups. Apart from that, PTS is carried out using a computer based test system, of course the concept is slightly different from online homework. Online homework is made by subject teachers using Google Form facilities in the form of quizzes which use automatic correction and manual correction. Of course, the types of questions that can be presented in the form of online questions are limited, let alone using the automatic correction facility.
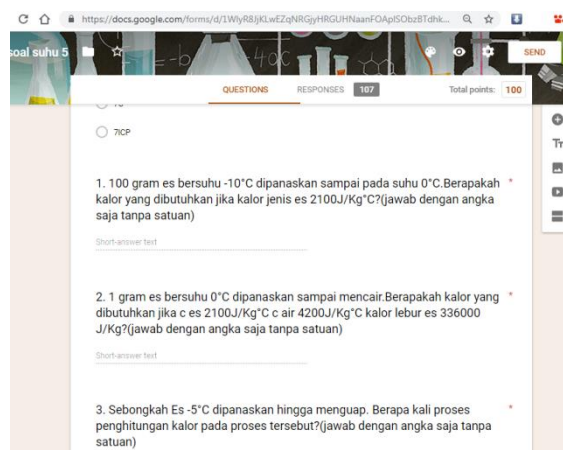

Figure 1. Online questions

Online questions are given in multiple choice form and short answers are intended for automatic correction mode. Meanwhile, for essays, manual correction mode is used because the assessment is more flexible and there are some tolerances that are difficult for computers to do. The grades of students who work on online assignments directly will appear shortly after the student submits them. This will result in information to all parties regarding the value more quickly.

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Data on student and guardian responses to the implementation of IT in learning was taken using a questionnaire which can also be accessed online. The expected number of respondents was 123 respondents but only 84 respondents had access. This questionnaire is intended for students and their guardians, so that student involvement can be realized in the student learning process.

The results of the questionnaire revealed several responses from students and their guardians regarding online learning, starting from materials, daily assignments and Mid-Semester Assessments. Material is given to students in softcopy form which is distributed within student groups. Meanwhile, daily assignments are made using a web-based application, namely Google Quiz, the link of which is shared with students and parent groups, so that several students' guardians can monitor. Google quiz was chosen because it is easier without enrollment, it is hoped that students will be more enthusiastic about doing it.

Mid-semester assessments are carried out using Moodle for only a few classes, namely computer based tests. In this exam, the Muhammadiyah 12 GKB Middle School IT team first prepared usernames and passwords for the students. PTS is carried out in full accordance with UNBK regulations. This is different from daily tasks which can be done anytime, anywhere and the duration of work is not limited. The results of the online assessment are given to all students, both those who have done it and those who have not done it. The assessment results and questionnaire results are shown later.

RESULTS AND DISCUSSION

This research produces some data that can provide information to improve the quality of learning and to determine the map of the conditions of student guardians and students in learning related to industry 4.0 issues.
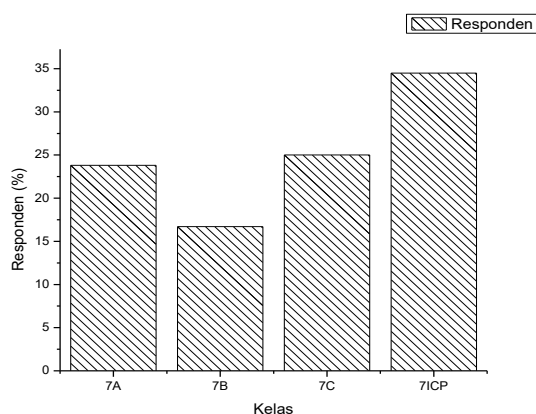

Figure 2. Graph of percentage of questionnaire respondents

The expected total number of respondents who must provide feedback related to online learning is 123 respondents. However, only 84 respondents were willing or able to fill in or 68.29% of the total. This shows that the number of students and parents who are able to adapt and feel they care about education is quite good because more than half. In this questionnaire, it was socialized that the results of the questionnaire would be used to improve the teaching and learning process so that the next teaching and learning process could be more optimal. In this questionnaire, a correlation was also sought between the conditions of differences in the ages of parents and students with the changing times from analog to digital. Responses were varied, there were parents who accepted this change and there were parents who wanted conventional methods such as asking for questions in paper form and

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materials recorded to students. There are even student guardians who do not agree with the automation of discussing assignments online. Especially for online assignments, when the work period has expired, students are not allowed to work on them again. However, students can access the questions again with different facilities, namely when they practice doing them, when they finish they will get the correct answer. So they know whether the answer is right or wrong.
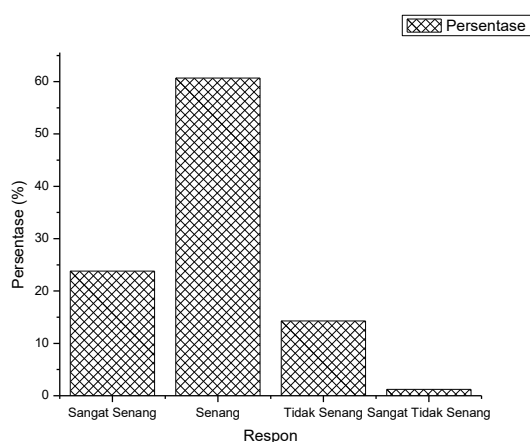

Figure 3. Graph of Online Assignment responses

Figure 3. Shows the responses of students and their parents to online assignments given by the teacher. 60.7% of students and parents were happy with the assignments given online. Online assignments are given using a Google quiz form which can be accessed without using a specific account and there is no time limit for completing it and no limit on the frequency of accessing questions, so that students find it easy in the process of completing it. If viewed from the ease of being able to access it multiple times, students can easily find learning resources to answer all questions. Based on the questionnaire that has been filled out, there are parents who complain that not all of them have internet access. Meanwhile, the percentage who were unhappy with online assignments was 14.3%, indicating that there were several students and their guardians who complained. Including there are parents who complain that this method makes it difficult for parents to limit the use of gadgets. This online assignment method really makes things easier for students, but there are weaknesses such as the grades that appear in the recapitulation will pile up. However, teachers can set it manually so they don't make mistakes when giving assessments. This convenience is intended to increase the percentage of students who work because students will work independently at home.
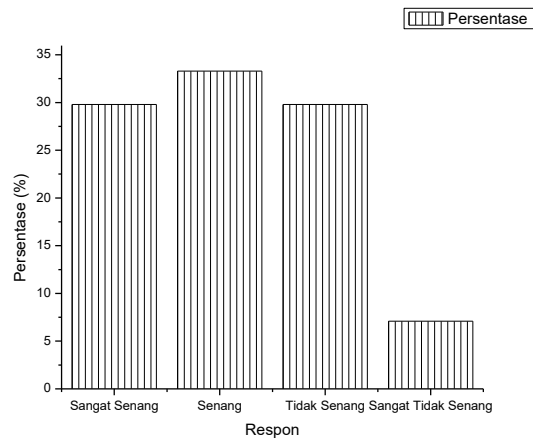
Figure 4. Computer-based PTS response graph

The computer-based Mid-Semester Assessment (PTS) was carried out at SMP Muhammadiyah 12 GKB using Moodle which was installed on the school server and shared internally by the school. Moodle access requires using a specific username and password provided by the school. Meanwhile, students and their guardians are not bothered by the internet. However, the percentage data for those who are happy is only 33.3% and those who are not happy is 29.8%. This is different from the percentage of online assignment responses in Figure 3. which were done at home and required internet access. This shows that the internet may not be the main problem being complained about. Limitations on the duration of work, limits on the frequency of access and the lack of opportunities for students to search for free sources of material can be reasons for being unhappy with the existence of Online PTS, not because of the form of online exams but because of the different evaluation implementation regulations. All students can be assured of taking online PTS at school because it is coercive and also puts more pressure on students' psychology than online assignments.
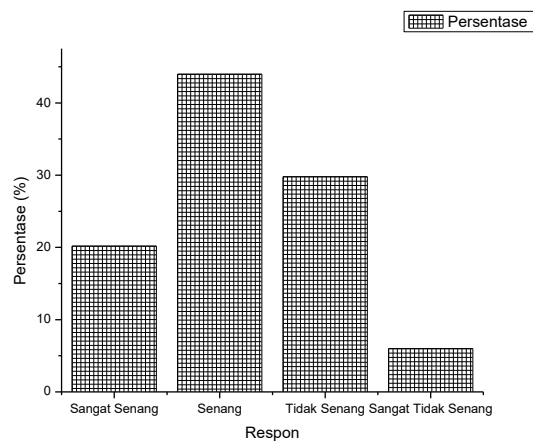

Figure 5. Response graph. The material is given in softcopy form

In Figure 5, it is shown that 44% of respondents said they were happy, while those who were unhappy were 29.8%. The results of the questionnaire filled out by the students' parents said it was

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difficult because there was no printer and they had difficulty viewing the material on the gadget. So this phenomenon shows that there is an age gap between children and parents that cannot be anticipated. In this question session, the responses given showed that the progress of information technology, marked by students entering Gen Z and at the same time as Native Digitals, still had no collaborative response from older parties. Even though the industry has also entered version 4.0
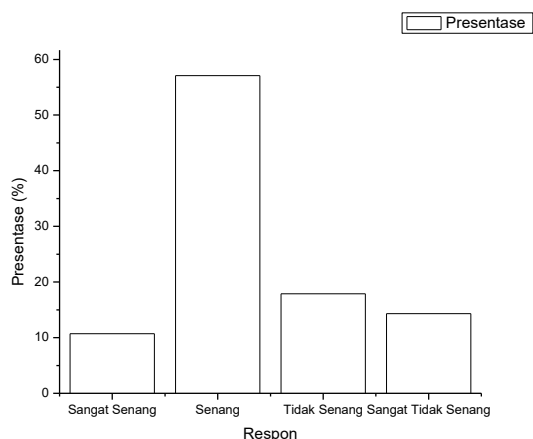

Figure 6. Graph of responses to homework assignments by teachers

Homework or homework is one thing that is still expected based on data from Figure 6. 57.1% of respondents stated that they were happy with the homework given by teachers to students. Meanwhile, 10.7% of respondents said they were very happy. Several factors influence this, such as parents feeling that there is material for their sons and daughters to learn. Students feel that homework is material for daily assessments and other assessments.

Homework can have an effect on student achievement, of course by paying attention to several factors, one of which is the relationship between homework and the material taught and the exams that will be given. Important to notestudents' perceived quality of homework (i.e., homework related to the class material being taught) and homework variables (i.e. effort, and homework performance) collected through different sources, and achievement achieved.
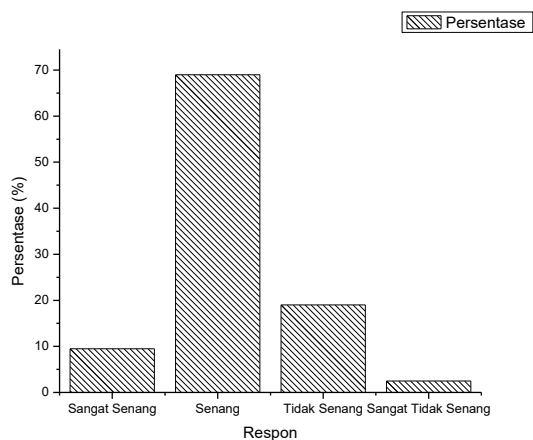

Figure 7. Graph of parents' responses to online homework

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Based on Figure 7. it is stated that 69% of parents are happy with the online homework given to their sons and daughters. In this data, 19% of students' parents are not happy with online homework, of course this is caused by several things, one of which is the view of parents who are still oriented towards conventional learning. The learning they experienced in junior high school and they still compare the learning now with the learning they received. There are 2.5% of students' parents who are very unhappy with online homework, of course for reasons they feel, such as the difficulty of controlling their children's use of gadgets. Guardians of students feel that they cannot differentiate between their children's use of gadgets for learning or just for playing. From this it is revealed that there are parents who have not been able to give their children confidence even in using gadgets.

Controlling the use of gadgets regarding the use and content accessed by children is one of the duties of student guardians. This is very important because children are digital natives who always interact with digital information consisting of sounds, images and even videos. The concern that parents have when their sons and daughters access the internet is access to pornographic content. This can cause negative effects for middle school age children(Miller 2013).

Discussion

Social media as a result of advances in information technology is one of the things discussed in IT-based education. Social media can be used as a tool in education, not just sharing but also teaching. In fact, social media is used in three ways, namely for personal interests, professional purposes, and learning(Manca and Ranieri 2016). Learning using online media gives students the opportunity to dig deeper audio-visually and moreover students are given the opportunity to search for material from various sources. In fact, film media is a very effective tool in providing knowledge to students because it involves audiovisuals. Even though there are several shortcomings, such as those related to the values conveyed by the material, audiovisual-based learning is very important because today's students are a generation of digital natives.(Anon n.d.-a).

Online learning using gadgets is learning that can include audio-visual material that supports students' absorption capacity. Student guardians and schools must begin to realize that today's students are Gen Z and also digital natives who have a completely different way of dealing with life than their parents. The issue of industry 4.0 is one of the triggers that education must truly be an online and offline collaboration. The speed of knowledge transfer to students should always grow along with advances in technology and human awareness of the implementation of technology in everyday life, especially in education. Education is also supported by the same things as Industry 4.0, namely Internet Innovation, Cloud Technology and virtual reality.(Mourtzis et al. 2018)

The world of education makes the Industrial 4.0 era a challenge and opportunity, especially in terms of 1. Online teaching, 2. Supporting mechanisms, 3. Assessment, 4. External target groups, 5. Educational flexibility, 6. Quality of education, 7. Institutional reputation, and 8. Educational efficiency. It is very clear that online learning has become a necessity and efficiency is very important in this era(Schophuizen et al. 2018). Internet content is actually protected by the government. However, internet content that is not suitable for children to watch can still escape. This causes very negative psychological and physical effects, including the cause of sexual harassment and deviant sexual behavior.(Miller 2013). Parents cannot remain silent about cases like this. Children must always be approached appropriately and according to their age, so as to avoid children's attempts to always access content that is inappropriate for viewing.

Of course, parents are very worried about free sex that occurs. Even in Austin Texas, research related to sex trafficking crimes was used with variablesproximity to interstate highways, number of cheap hotels or motels and sexually oriented businesses.(Mletzko, Summers, and Arnio 2018). This is a concern for all parties in providing education and supervision of children, starting from the family, community, school and state. Only systemic supervision can be carried out for optimal supervision.

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Families have limitations in supervising children, especially when they are outside the house or using gadgets in special spaces such as rooms.

Uncontrolled use of the internet in children can cause psychosocial problems. In one study, it was stated that the majority of children use the internet, one in every five children is at risk of psychosocial problems. The risk of psychosocial problems is higher in men, children who have 'fathers not working', use the internet for 5 years and over, use the internet for 3 hours or more per day. These results suggest that families should be informed about the association between internet use and psychosocial problems and then action should be taken to provide controlled internet use for children.(Işik and Ayaz Alkaya 2017).

This research is useful in providing a basis for decisions in implementing appropriate learning for today's students along with the factors that are the consequences. Apart from that, it also provides an overview to the world of education, ways to use technology that can be implemented, so that it can improve the quality of education and reduce the negative impact of technology, especially information technology.

CONCLUSION

The conclusions of this research are:

1. 68.29% of all respondents filled out the questionnaire for improving learning, indicating that concern for improving learning is still quite large because more than 50%
2. Responses to online assignments were 60.7% happy and 23.8% very happy, indicating that students and their guardians were willing to prepare internet infrastructure at home (there was a willingness to make material sacrifices). Guardians and students benefit from unlimited access duration and frequency
3. The response of being happy with PTS Online was 33.3% while very happy with PTS Online was 29.8%. Smaller percentage of Online Assignments. This shows that respondents prefer to make monetary sacrifices with flexible duration and frequency of work rather than evaluations which are limited in duration and frequency of work even without providing infrastructure.
4. 69% of student parents are happy with online homework, indicating that the majority of student parents have been able to adjust to dealing with their children who are part of Gen Z and Native Digitals.

Research suggestions:

1. The school needs to facilitate the use of media and learning materials*on line*according to the needs of students and parents.
2. Parents and students need to be wise in using learning media*on line*as much as possible and not too worried about the impact of the internet.

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