



The Effect of Socialization Regarding Digital Literacy to Respond to Challenges in The Era of Disruption to The Knowledge of Students of Junior High School 12 Bandung

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Abstract. This study aims to find out how the impact of socialization on digital literacy to answer challenges in the era of disruption to knowledge and application in everyday life regarding digital literacy for students at Junior High School 12 Bandung. The situation in this era of disruption is increasing the use of social media as online media. Children and parents use social media a lot. Young people as the millennial generation or can also be called digital natives are the largest users in the use of social media today. The spread of social media networks makes it easier for inaccurate news to come from anywhere. It is hoped this research can add insight into appropriate digital literacy. The subjects of this study were students of Junior High School 12 Bandung as a young age group with an age range of 13-17 years who were active users of social media. Respondents amounted to 15 students. Respondents consisted of 5 students in grade 7, 1 student in grade 8, and 9 students in grade 9. This study used a quantitative descriptive method. The technique used for data collection is using a questionnaire. There are three stages in data collection, namely (i) distributing the pre-test questionnaire; (ii) providing socialization actions using powerpoint; and (iii) distribution of post-test questionnaires. The data processing approach used is a quantitative approach. The results showed there was an increase between the average pre-test and post-test values, namely an increase from the pre-test average value of 73.33 to 96, 44 on the post-test score / after receiving socialization treatment. The calculation of N-Gain is carried out to determine the effectiveness of the socialization carried out. The results show the average N-Gain value is 85% (N-Gain > 40%). It can be concluded the socialization of digital literacy using powerpoint media is effective for students of Junior High School 12 Bandung. Effective results due to lack of insight and interest in literacy in Junior High School 12 Bandung students are low and after the socialization treatment is given, it adds insight to students at JUNIOR HIGH SCHOOL 12 Bandung because the post-test scores of students increase significantly. It can be concluded the socialization of digital literacy using powerpoint media is effective for students of Junior High School 12 Bandung. Effective results due to lack of insight and interest in literacy in Junior High School 12 Bandung students are low and after the socialization

treatment is given, it adds insight to students at Junior High School 12 Bandung because the post-test scores of students increase significantly. It can be concluded the socialization of digital literacy using powerpoint media is effective for students of Junior High School 12 Bandung. Effective results due to lack of insight and interest in literacy in Junior High School 12 Bandung students are low and after the socialization treatment is given, it adds insight to students at Junior High School 12 Bandung because the post-test scores of students increase significantly.

1. Introduction

The era of disruption is an era in which massive changes occur change new systems and business arrangements or innovations. Disruption itself is mainly caused by new innovations and creativity. Broadly speaking, disruption is a condition where there is an innovation causes a massive or fundamental change into a new system. The era of disruption 4.0 began in the Industrial Revolution 4.0. Industry 4.0 is an automation trend in factory technology [1]. The era of information disruption brings easy access to information from anywhere and anytime. Due to the ease of accessing information from anywhere, there are things must be considered, such as the spread of hoaxes [14]. Hoax is information is actually not true, but is made as if it is true. According [2] hoax is a series of information is intentionally misled, but is sold as truth. According to [3] hoax is fake news contains information intentionally misleads people and has a specific political agenda. Hoaxes are not just misleading or misleading, the information in fake news also has no factual basis, but is presented as if it were a series of facts. Digital literacy in the current era of disruption is very important to continue to be improved by the community, because digital literacy is able to make us think critically, creatively, and innovatively in dealing with current problems [15]. Digital literacy is also able to help solve problems, communicate more smoothly, and be able to collaborate with more people. There are many positive sides of digital literacy, but as a reader you must know how to get accurate information, not hoaxes [13].

There have been many studies on digital literacy, one of which is research conducted by Mathematics Education Students, FMIPA, Semarang State University, namely, [4] discuss about The Role of Digital Literacy to Prevent the Spread of Hoax for the Indonesian Society. According to them, the more technology develops, the easier it is for anyone to get information at any time. The development of technology as it is now has a positive and negative influence [16]. An example of the negative influence of information technology is the spread of hoaxes. Hoax according to the Big Indonesian Dictionary is fake news [17]. Research on strengthening digital literacy in preventing the spread of hoaxes in the millennial era research conducted by [5] according to researchers The rapid development of technology has penetrated into various regions. People can access the internet and social media to get the latest information, knowledge, entertainment, to communicate without knowing any specific boundaries [6]. One of the bad effects occurs is the circulation of fake news (hoaxes) carried out by individuals with a specific purpose [7]. This study aims to describe the sources of related topics to determine the role of digital literacy in the prevention of hoaxes by using a descriptive analysis method. Through literature study, a data collection technique was produced. Digital literacy plays an important role for the community when receiving and overcoming hoax information [8]. Hoax handling uses the term "self-censorship". Self-censorship is a selective act in selecting information [9]. Through digital literacy, people can monitor the environment and can participate in social life well. Digital literacy is needed as an effort to prevent hoaxes [10].

However, there is no research discusses digital literacy to answer challenges in the era of disruption [12]. Therefore, this study aims to determine the effect of socialization digital literacy to answer challenges in the era of disruption to the knowledge Junior High School 12 Bandung students. The novelties of this study are (i) research conducted on the effect of socializing digital literacy to answer challenges in the era of disruption to knowledge in students of Junior High School 12 Bandung; (ii) the socialization process is carried out using power point media; (iii) research focuses on insight into the digital literacy of Junior High School 12 Bandung students, which can then be applied appropriately and well to digital literacy.

2. Method

2.1. Research subject

The subjects of this research were students of Junior High School 12 Bandung. We take samples from grades 7, 8, 9. Respondents amounted to 15 students. Respondents consisted of 5 grade 7 students, 1 grade 8 student, and 9 grade 9 students (See **Figure 1**).

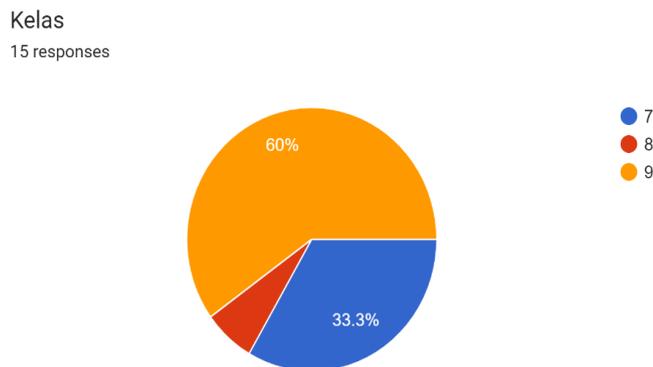


Figure 1. Percentage of Respondents' Gender

2.2. Research Design Analysis

Research data collection was carried out by distributing questionnaires using Google Form media to the students of Junior High School 12 Bandung. There are three stages in data collection, namely (i) distributing the pre-test questionnaire; (ii) providing socialization actions using powerpoint; and (iii) distribution of post-test questionnaires. The data processing approach used is a quantitative approach. In this study, there were 15 pre-test questions and 15 questions which were the same as the pre-test for the post-test. The types of pre-test and post-test questions are multiple choice and short answer questions (See **Table 1**).

Table 1. Pre-Test and Post-Test Questions

| No. | Question | Yes | Not |
|-----|---|---|-----------------------------------|
| 1. | Do you know digital literacy? | | |
| 2. | Do you know what a hoax is? | | |
| 3. | Do you like literacy? | | |
| 4. | Are you interested in digital literacy? | | |
| 5. | Do you think hoaxes will have a bad impact on life? | | |
| 6. | Do groups on your social media have a positive impact other than communicating? | | |
| 7. | Do you like looking for information on your social media? | | |
| 8. | Do you like making posts/content on your social media? | | |
| 9. | Do you think digital literacy can save time? | | |
| 10. | Do you easily trust information obtained from online? | Yes, easy | No, need to revisit/find out more |
| 11. | Only good at reading but not good at understanding the contents of the reading. Do you think this is wrong/right? | Wrong | Right |
| 12. | Have you been able to sort out what to upload on social media? | Already | Not yet |
| 13. | Have you been able to rate negative / positive content on social media? | Already | Not yet |
| 14. | What do you think about e-books/online books? | Strongly supports the existence of e-books because they care about the environment (reduce excessive paper usage) | Prefer to read ordinary books |
| 15. | What social media do you use? | SHORT ANSWER... | |

2.2.1 Analysis of N-Gain Value

Analysis of the normalized gain or N-Gain value is a comparison between the maximum possible average gain (Gain = posttest score - pretest score). According to Hake (1998) Analysis of the normalized gain or N-Gain value of the average of a treatment / lecture / learning as a rough measure / estimate of the effect of a treatment / lecture / learning as insightful understanding. Formula used:

$$N\ Gain = \frac{Skor\ Posttest - Skor\ Pretest}{Skor\ Ideal - Skor\ Pretest}$$

The ideal score is the maximum value can be obtained by the respondent when the respondent fills out the pre-test and posttest questions on the google form. From the above formula, it can be seen the calculation results are then referred to in the following table [18]. (See Table 2):

| N-Gain Value | Category |
|--------------------|-----------|
| $g > 0.7$ | Tall |
| $0.3 \leq g < 0.7$ | Currently |
| $g < 0.3$ | Low |

3. Results and Discussion

In Table 3 below are the results of the analysis of the gain values obtained from the posttest and pretest assessments distributed via google form. The calculation of the gain value is carried out to show the quality of improving the skills possessed by each respondent after an action is taken [19]. To find out the effectiveness of socialization regarding digital literacy to answer challenges in the era of disruption. Based on the results in Table 3, it is known the average value of N-Gain is 0.85 (85%) indicating the socialization method using power point media is effectively used in students of Junior High School 12 Bandung. The minimum N-Gain value is 0.74 (74%) and the maximum is 0.85 (85%). According to [20], if the N-Gain presentation value is >78%, it is categorized as effective. Effective results due to lack of insight and interest in literacy in students of Junior High School 12 Bandung is low (See Table 3).

Table 3. Analysis of Pre-Test and Post-Test Gain Values.

| No. | Name | Score | | N-Gain | Category |
|-----|-----------|----------|-----------|--------|-----------|
| | | Pre-Test | Post-Test | | |
| 1. | Student 1 | 93.33 | 100 | 1 | Tall |
| 2. | Student 2 | 73.33 | 93.33 | 0.74 | Tall |
| 3. | Student 3 | 86.67 | 100 | 1 | Tall |
| 4. | Student 4 | 86.67 | 93.33 | 0.5 | Currently |
| 5. | Student 5 | 66.67 | 93.33 | 0.6 | Currently |
| 6. | Student 6 | 73.33 | 86.67 | 0.5 | Currently |
| 7. | Student 7 | 60 | 100 | 1 | Tall |
| 8. | Student 8 | 80 | 93.33 | 0.66 | Currently |
| 9. | Student 9 | 86.67 | 100 | 1 | Tall |

| | | | | | |
|-----|----------------|--------------|--------------|-------------|-----------|
| 10. | Studentrt 10 | 80 | 100 | 1 | Tall |
| 11. | Student 11 | 53.33 | 93.33 | 0.86 | Currently |
| 12. | Studentr 12 | 66.67 | 100 | 1 | Tall |
| 13. | Student 13 | 53.33 | 93.33 | 0.86 | Currently |
| 14. | Student 14 | 60 | 100 | 1 | Tall |
| 15. | Student 15 | 80 | 100 | 1 | Tall |
| | Average | 73.33 | 96.44 | 0.85 | |
| | Min. | 53.33 | 86.67 | 0.74 | |
| | Max. | 93.33 | 100 | 1 | |

Figure 2 shows the analysis of differences in the results of the pre-test and post-test questions. Based on the graph, it can be seen 14 questions have increased. The last 1 question is considered an ideal value because all of them have social media. If seen from the results of the graph also supports socialization has an effectiveness in conveying material / insight to students in order to increase student knowledge (See Figure 2).

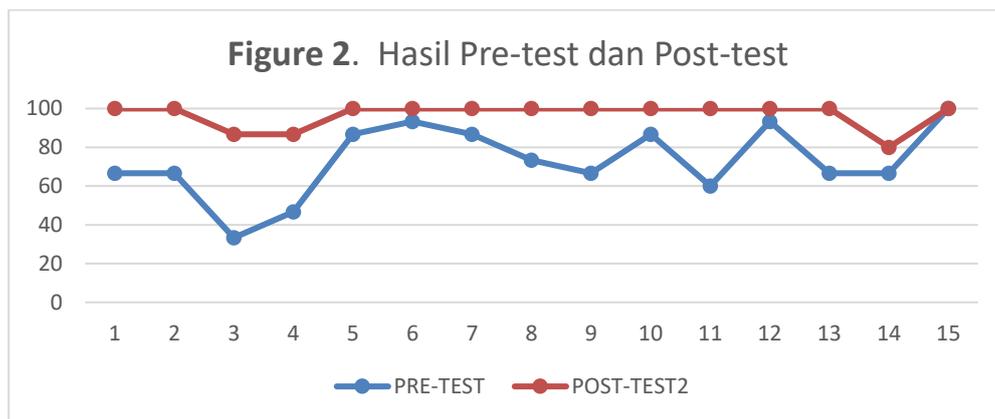


Figure 2. Results Pre-test and Post-test

From each analysis of the data above, it can be seen socialization has a positive impact on increasing student insight at Junior High School 12 Bandung. And increase interest in literacy. Attractive power point media and expressive delivery of socialization help students become interested in socialization they pay attention.

4. Conclusion

The research has been carried out aims to determine the effect of digital literacy socialization to answer challenges in the era of disruption. There are 3 main steps to determine the effect of socialization in this study, namely (i) taking the pre-test; (ii) socialization actions using power point media; (iii) taking post-test. The results showed an increase between the average pre-test and post-test scores, which was an increase from the pre-test average value of 73.33 to 96.44 in the post-test score / after receiving socialization treatment. The calculation of N-Gain is carried out to determine the effectiveness of the socialization carried out. The results show the average N-Gain

value is 85% (N-Gain > 40%). It can be concluded the socialization of digital literacy using power point media is effective for students of Junior High School 12 Bandung. Effective results due to lack of insight and interest in literacy in Junior High School 12 Bandung students are low the post-test scores of students increase significantly.

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