

# Social Media Literacy Training for Preventing Cyberbullying Intention Among Senior High School Students

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## Abstract

*Purpose:* This study aimed to determine the effectiveness of social media literacy training on prevention of cyberbullying in high school students

*Methodology:* This study used the experiment method, with one pretest-posttest group design. The treatment applied was social media literacy training to prevent cyberbullying for a day. Thirty high school students who were members of OSIS participated in this study. This selection was the first step to form an anti-cyberbullying agent. The participants were picked using a purposive sampling technique. Data were collected using two instruments, knowledge test of cyberbullying and the cyberbullying intention scale. Then, the data were analyzed using a non-parametric Wilcoxon signed-rank test with the assist of data processing software.

*Results:* Research result revealed that the Z score for pretest-posttest of students' knowledge on cyberbullying was -4.801 with  $p = 0.00$  ( $p < 0.01$ ). In addition, the result of pretest-posttest of cyberbullying intention shows Z score -4.792 with  $p = 0.00$  ( $p < 0.01$ ). The conclusion is the level of cyberbullying knowledge increases, and cyberbullying intention reduce after training; thus, the hypothesis accepted.

*Applications/Originality/Value:* Social media literacy training is sufficient to prevent cyberbullying in high school students. Prevention and intervention efforts regarding the increase of cyberbullying knowledge and reduce cyberbullying intention discussed further.

**Keywords:** Social Media Literacy, Cyberbullying, Preventive, High School Students

## INTRODUCTION

In this digital era, technology has become people daily need that supports social life. Technology has extra value as a media to explore information and to communicate. In this case, information dispersion canals are increasing, along with easy accessibility to all types of information, which is through the internet. Although conventional media such as television, newspaper, and radio have used technology to generate maximum output, the growth trend of internet users resulted in a decrease in the use of those conventional media. The increase in the number of a user also followed by the rise of access to social media as new mass media for people (Prakoso et al., 2017).

According to the report of Kemp (2019) on the content management service website of Hootsuite and We Are Social, from January 2018 period to January 2019, as many as 150 million Indonesian citizens use the internet to socialize via social media. The number of social media users reaches 56% of 268.2 million people in Indonesia. Besides, social media users based on age category range from 18 to 34 years old, as many as 49.5 million people. This research also shows data of social media consumption in adolescents with an age range from 13 to 17 years old, as many as 22.5 million people (<https://datareportal.com>).

Social media usage makes the communication process and social interaction broader. But the rapid internet penetration and the growing number of social media users also spark the conventional

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media to apply the streaming of their contents online. The advantage is that the users can easily access news sites via smartphone directly (Prakoso et al., 2017). It means that someone can update new information as he or she does other online activities without the need to turn on the television.

Social media such as Facebook, Instagram, Twitter, Snap chat, and so forth can provide a space for people to express themselves. Social media users have the freedom to do whatever they want, such as updating status, posting photos and videos, as well as selling things online. Also, the users can reply to each other comments and respond to the situation or news spread by other users. Interaction through social media gives an opportunity to make friends, shape identity, look for information, and to do many other things. However, unlimited freedom in using social media has also given negative experiences and potential, particularly for adolescents, such as harassment and electronic intimidation. This construct is called cyberbullying.

In general, bullying is seen as a behavior which is intended to hurt other people repetitively and, in this case, the victims find it difficult to defend for themselves (Smith & Slonje, 2009). This is based on unbalance of power or abuse of power systematically. As discussed by Collier (2012), Smith & Slonje (2009), and Tokunaga (2010), cyberbullying is an aggressive act or behavior which is performed using electronic or digital instrument by a group or an individual, for hurting others, even the victims could not defend themselves.

Bullying has some social, emotional, mental, and academic effects (Klomek et al. (2008); Merrel et al. (2008); Nixon (2014)). The results of bullying are depression, anxiety (personal and social), aggression, loneliness, academic discomfort, and tendency to be troublesome at school (Klomek et al. (2008); Merrel et al., 2008; Nixon (2014)). However, a cyber victim shows a higher level of depression than the victims of other forms of bullying (Wang et al., 2011). According to data from United Nation Children's Fund (UNICEF), in 2016, 41% to 50% of the adolescent in Indonesia in age ranging from 13 to 15 years old have ever experienced cyberbullying (KPAI, 2018). Research by Permatasari (2013) on the phenomena of cyberbullying in high school students revealed that the effect that is often felt by the actor of cyberbullying was a continuous sense of guilt. Meanwhile, the consequence that the victim felt is being hurt and disappointed. Following this, the findings of research by Safaria (2016) show that bullying victimization can be a predictor of the level of mental distress in students. It marked by the significant difference of psychological distress level between students who often experience bullying at school and students who never experience bullying. It proves that cyberbullying is a threat to adolescents' health and wellbeing (Nixon, 2014).

Rashid et al. (2017) stated that cyberbullying behavior has a strong relation to intention. It means that an individual with a lack of self-control will tend to lose control over their instinct and primitive drive. They also cannot be able to channel them into healthier behavior. Furthermore, adolescent as a group which is in the transition phase from childhood to adulthood tends to be prone to conflict. The search for identity becomes one of the main issues for adolescent so that they frequently do things that begin with trial and error, which not always ends in a positive outcome (Sarwono, 2014).

It often happens because the range of age (13-17 years old) is the minimum age to have a social media account. The majority of adolescents have not had the knowledge and skill to use social media accurately and positively. Social media literacy has become very important because it is a set of perspectives to interpret the meaning of a message that will give clues about how to treat social media in a more healthy way (Prakoso et al., 2017). Ganggi (2018) defined social media literacy as an individual's skill to search, sort, and apply the source of information in social media. For example, the freedom to express a message in social media must be filtered to not violent social norms and values, particularly for adolescents, an individual who is still in search of a self-identity.

According to a preliminary study conducted by researchers and assisted by a facilitator of Forum Anak Jawa Tengah, revealed that students of SMA X in Semarang have the potential for light cyberbullying experiences. Also, the level of social media literacy is in a low category. The school authority also said that there had never undertaken in the form of social media literacy training at the school. In this context, the lack of high school students' knowledge of good media content has the potential to unfortunate effect from internet access.

Therefore, sufficient information spread through social media has made an adolescent more careful to sort out cyberspace activities. Lee et al. (2013) mentioned that this issue had become a primary concern for teachers, academics, and school authorities. The increasing prevalence of cyberbullying intentions in Indonesia and a lack of adolescents' knowledge on the issue demands the effort to prevent the harm of cyberbullying in adolescents, particularly in the school context. On this basis, increasing awareness of social media, cyberbullying, and the intention to prevent cyberbullying through social media literacy training is an important issue overcome.

### Research objective

Based on the background above, this study aimed at investigating the effectiveness of social media literacy training on the increase of knowledge and reduce cyberbullying intention in high school students.

### Hypotheses

The hypotheses in this study are:

- H.1: There is a difference in the level of knowledge on cyberbullying before and after social media literacy training.
- H.2: There is a difference in cyberbullying intention before and after social media literacy training.

## METHODOLOGY

### Participants

This study conducted at one of the public senior high schools in Semarang, which is indicating cyberbullying problem propensities. The purposive sampling was applied to select participants. Thirty students who are members of the OSIS (Organisasi Siswa Intra Sekolah) participated in the research, the first steps in forming an anti-cyberbullying agent. Eight participants were male (26.7%), and 22 others were female (73.3%). The age range of the final sample was 15 to 17 years ( $M = 15.9$ ,  $SD = 0.66$ ).

### Study design

This research was using an experimental method, with one group pretest-posttest design. First, all participants undertook a pretest to determine the subject's baseline of knowledge and intention of cyberbullying. Second, the group was engaged in one-day social media literacy training and then immediately conducted a posttest after training. Furthermore, pretest and posttest scores were compared, and any differences were attributed to the experimental intervention. Figure 1 provides a design scheme of the experiment in this study.



**Figure 1.** One group pretest-posttest design

- O<sub>1</sub>: Pretest
- X : Social media literacy training
- O<sub>2</sub>: Posttest

**Instruments**

**Knowledge test**

A knowledge test was used to measure the basic knowledge of the participants about social media literacy and cyberbullying. This test consisted of 20 true or false questions. Each correct answer was given score five, while an incorrect answer was not scored or 0. Therefore, the higher the total score, the higher the level of the participants’ knowledge, and vice-versa.

**Cyberbullying intention scale**

The cyberbullying intention scale was used to measure the estimation of cyberbullying behavior in the short term, to investigate whether students ever have thought to get involved in cyberbullying. This scale consists of 17 items. The researchers compiled the items based on cyberbullying behaviors’ forms, according to Willard (2007). It was composed of flaming, harassment, cyberstalking, denigration, impersonation, outing and trickery, and exclusion.

The participants were requested to rate each item on a 4-points Likert scale, ranging from 1 (absolutely inappropriate) to 4 (absolutely appropriate). For the current study, the Cronbach’s Alpha reliability was 0.77. The higher the score is, the more vivid cyberbullying intentions of the students are, and vice-versa.

**Procedure**

The procedure of this research, in general, is divided into two parts, the preparation stage, and implementation of social media literacy training. At the preparation stage, experimenters did some preparation activities such as formulating the test of knowledge on cyberbullying, compiling the training module and performing simulation of the training. The next stage is the implementation of social media literacy training for a day.

The procedure of the training consists of four sessions. You can see in Table 1 below.

Table 1. The rundown activities of social media literacy.

Session	Material/Activity	Method
Session I	Introduction Pretest Social media and the impact of its use	Problem based-learning
Session II	Cyberbullying, impact, dan danger	Group sharing, personal and group feedback
Session III	Social media literacy: wise way to prevent cyberbullying	Group sharing
Session IV	Role play Posttest	

## Affirmation and contract after the training

At the end of the fourth session, affirmation activities and contracts held after the training. Affirmation activities are students' self-reflection after attending the training. Participants are asked to reinforce the experience gained during the training, then set a value for themselves. Next, each participant develops a short-term action plan for himself. In other words, this activity is self-oriented.

As with self-reflection, the contract after the training conducted between researchers, teacher assistants, and participants, in this case, the OSIS members. Participants, as anti-cyberbullying agents, were asked to design and apply social media literacy training programs to target school students. That is, this task-oriented to the group.

### Data Analysis

The results of pretest and posttest were analyzed using descriptive statistics analysis and Wilcoxon signed rank test formula in order to test the hypotheses.

## RESULTS

### Data Description

Research data was obtained from the result of knowledge on cyberbullying prevention and cyberbullying intention scale. Table 2 shows statistics of each variable. The description of knowledge and prevention on cyberbullying prevention before and after the training can be seen in Table 2.

**Table 2.** Description of research data.

	N	Mean	Std. Deviation	Minimum	Maximum
Knowledge					
Pretest	30	60.33	9.27	45	80
Posttest	30	80.33	7.76	65	100
Cyberbullying intention					
Pretest	30	34.93	2.56	30	40
Posttest	30	17.77	2.24	15	22

Furthermore, to identify frequency distribution of participants' score, categorization was applied in each variable. Table 3 revealed the frequency distribution of knowledge on cyberbullying before and after the training.

**Table 3.** Frequency distribution of cyberbullying knowledge.

Score interval	Frequency (pretest)	Percentage (%)	Category	Frequency (posttest)	Percentage (%)
$X \geq 67$	8	26.7	High	29	96.7
$33 \leq X < 67$	22	73.3	Moderate	1	3.3
$X < 33$	0	0	Low	0	0

By referring to Table 3, there were eight students whose level of basic knowledge on cyberbullying before the treatment was in high category. Cyberbullying knowledge of 22 students (73.3%) was in the moderate category. After the training, the number of students who had high knowledge on cyberbullying became 29 students (96.7%), while one other student (3.3%) had the knowledge in moderate category.

From the result, it can be concluded that knowledge about cyberbullying of most students before the training was in moderate category with empirical mean 60.33, which ranges from score 33 to 66. Students' knowledge reached the highest level after attending social media literacy training. This result was supported by empirical mean of 80.33 (above 67).

**Table 4.** Frequency distribution of cyberbullying intention.

Score interval	Frequency (pretest)	Percentage (%)	Category	Frequency (posttest)	Percentage (%)
$X \geq 51$	0	0	High	0	0
$34 \leq X < 51$	20	66.7	Moderate	0	0
$X < 34$	10	33.3	Low	30	100

Table 4 shows that students' cyberbullying intention before the training was in moderate category (66.7%) and low (33.3%), while after the training, all the participants, as many as 30 students (100%), was in low category for cyberbullying intention.

### Hypotheses Verification

The verification hypotheses in this research consists of two parts. The first part is Wilcoxon Signed-Rank Test. This test is used to measure whether there is mean difference of the level of participants' knowledge of cyberbullying before and after the training. Moreover, this test is also used to know whether there is a difference of cyberbullying intention before and after the training.

**Table 5.** Hypotheses verification.

	Posttest-pretest (knowledge)	Posttest-pretest (intention)
Z	-4.801	-4.792
Asymp. Sig. (2-tailed)	0.000	0.000

The result of Wilcoxon signed rank test revealed that Z score for students' knowledge is -4.801 with  $p = 0.00$  ( $p < 0.01$ ) (see Table 5). Therefore, first hypothesis (H.1) that state there is a difference between the level of knowledge of cyberbullying before and after the training is accepted. Furthermore, Z score for pretest-posttest regarding cyberbullying intention is -4.792 with  $p = 0.00$  ( $p < 0.01$ ). It means there is a difference between the level of cyberbullying intention before and after the training, thus the hypothesis (H.2) is accepted. Based on the result, it can be concluded that social media literacy training effective on cyberbullying prevention in high school students.

### DISCUSSION

Based on the results of the study, social media literacy training programs for cyberbullying prevention can be said to be effective. Prevention of cyberbullying through social media literacy training can directly increase knowledge and reduce the students' intentions of cyberbullying. Social media literacy can be a suitable solution to reduce the level of cyberbullying in adolescents.

The results revealed that training could immediately and effectively increase knowledge about social media literacy and prevention of cyberbullying. This finding is in line with research by Rahmawan et al. (2018), which states that social media literacy training can increase the awareness of high school students to be wiser in effectively utilizing internet media. In line with Rahmawan et al. (2018), Prakoso et al. (2017) added that through social media literacy, the youth generation, in this case, adolescents, can be more selective in filtering and separating information, and interpreting messages better, to avoid contamination of lousy content.

Providing social media literacy training is not purposing to restrict students from accessing untrustworthy media content. However, this training aims to equip students to be skilled in exploring, verifying, and evaluating content. That is, if students restricted from accessing sites that are not suitable for them, it does not mean they will stop using this site. Students will only lose the opportunity to learn how to use it effectively. Gammon & White (2011) suggested that students need to be critically involved with social media in all ways. The intended method is to consume, make, and comment are all forms of participating with the media. It can help students focus on honing their skills. Regarding cyberbullying cases in adolescents, Bhat et al. (2010) emphasize the importance of proactive social media literacy to promote the ethical use of technology that is responsible for students.

The further finding showed that training can reduce the intention of cyberbullying in high school students. This result is in line with the research of Lee et al. (2013). Training content on cyberbullying prevention and social media literacy made students aware of formal rules and guidelines for internet use, increased their capability to protect themselves based on an internet security perspective, and ultimately led students to be responsible for using social media wisely. These have a significant influence on students' cyberbullying intention.

The experience of this study shows that social media literacy training can be useful. The submission of material in this training applies contextual learning that adapted to everyday life. The consideration is that giving several examples of cases known as lighters of knowledge and giving their opportunities to play roles will quickly increase students' awareness and empathy. Confirmation activities at the end of the session in the form of self-reflection can strengthen students' personnel values towards preventing cyberbullying and design action plans for themselves.

Because the study was only engaging a small number of students, this training effort showed as a pilot study. That is, the participants who are OSIS members can design the same program with the teacher's assistance. The next activity target is all students of the school. Gammon & White (2011) asserted that literacy is not only intended for students but also important for educators. In this case, educators must realize that they continue to play a central role in helping students to understand and engage effectively with the world around them. Bhat et al. (2010) more clearly asserted that social media literacy training is not only aiming for students, but also at teachers, other school personnel, and parents.

## CONCLUSIONS

The conclusion of this study is social media literacy training effectively as a cyberbullying

intention prevention program for high school students. The proof, cyberbullying prevention knowledge has increased after training. Likewise, cyberbullying intentions are getting lower after social media literacy training. Training attainment also strengthened from the results of the participants' self-reflection.

For further research, social media literacy training needs to be done regularly and in a more extended period. It aims to improve individual social media literacy because the scope of material is broader. Suggestions for the schools, look at research results that show that students need social media literacy training. This training program, through a pilot study, is productive and positive for the prevention of cyberbullying. Therefore, the school needs to carry out this program in a sustainable manner.

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