

## Beware of cyberbullying! Evidence from high school students in Indonesia

Fredik Lambertus Kollo<sup>1</sup>, Zulkarnain<sup>2</sup>, Tuatul Mahfud<sup>3</sup>, Matang<sup>4</sup>

<sup>1</sup>Department of Pancasila and Civic Education, Faculty of Teacher Training and Education, Universitas Nusa Cendana, Kupang, Indonesia

<sup>2</sup>Department of Electronics Engineering, Balikpapan State Polytechnic, Balikpapan, Indonesia

<sup>3</sup>Department of Tourism, Balikpapan State Polytechnic, Balikpapan, Indonesia

<sup>4</sup>Department of Civic Education, Universitas Pendidikan Indonesia, Bandung, Indonesia

### Article Info

#### Article history:

Received Jan 26, 2023

Revised May 27, 2023

Accepted Jun 27, 2023

#### Keywords:

Bullying  
Cyberbullying  
School climate  
Social self-efficacy  
Social support

### ABSTRACT

Cases of cyberbullying among high school students have become the center of attention of educational institutions as a new form of bullying using information technology. Many studies examine cyberbullying as a new form of bullying. However, studies on school climate, social support, and social self-efficacy in reducing cyberbullying behavior among high school students are still limited. Therefore, this study investigates the effect of school climate, social support, and social self-efficacy on cyberbullying behavior. This study involved 290 high school students in three schools in Kupang City, Indonesia. We used a simple random sampling technique to determine which respondents were involved. SPSS version 20 and Amos 18 software were used to analyze the data for this study. Data analysis in this study used structural equation modeling (SEM) analysis. The study's results revealed that school climate and social self-efficacy significantly negatively affected high school students' cyberbullying behavior. Meanwhile, social support has no direct influence on students' cyberbullying behavior. Social self-efficacy has also been shown to mediate the effect of school climate on high school students' cyberbullying behavior. An in-depth discussion is presented in this paper to provide an overview of the critical implications for educational practitioners.

*This is an open access article under the [CC BY-SA](https://creativecommons.org/licenses/by-sa/4.0/) license.*



### Corresponding Author:

Fredik Lambertus Kollo  
Department of Pancasila and Civic Education, Faculty of Teacher Training and Education,  
Universitas Nusa Cendana  
Kupang, East Nusa Tenggara, Indonesia  
Email: fredik.lambertus.kollo@staf.undana.ac.id

## 1. INTRODUCTION

Cases of bullying that occur in schools are still a concern of education practitioners, especially the impact of bullying on students' mental health [1]–[4]. Over the past few decades, there has been an increase in the prevalence of bullying disorders among children and adolescents worldwide, with estimates ranging from 10-30% [5], [6]. In addition, the emergence of information technology in various social media platforms has encouraged an increasing number of new bullying cases that utilize information technology [7]. New bullying behaviors that use information technology media are often known as cyberbullying [8], [9]. According to previous studies, between 46 and 88 percent of participants had personally witnessed cyberbullying [10]. Since cyberbullying is a new form of bullying in the digital age, it has attracted the attention of scientists [3], [11]–[13]. Many of their studies try to see how cyberbullying can happen.

Cyberbullying behavior has offered someone to use new technology as a means to intimidate others [14], [15]. The incidence of bullying has skyrocketed along with the expansion of communication and

information networks [15], [16]. For obvious reasons, this is the case, as indirect bullying is generally considered the safest and most enjoyable alternative to more overt forms of harassment. Bullies have complete anonymity to terrorize their victims [17]. In addition, they can quickly disseminate bullying to everyone through open virtual media [17]. The primary reason why cyberbullying often occurs is that it is associated with the proliferation of social media [18]. Those who engage in cyberbullying are likely to have problems with the problematic use of social media. That is, cyberbullies cannot control social media use and spend too much time on it, which negatively impacts relationships and real life [19].

Referring to Social Cognitive Theory (SCT) that individual behavior is influenced by personal and environmental factors [20]. Cyberbullying behavior is also influenced by two personal and environmental dimensions. In the school context, school climate is an essential factor in the emergence of cases of bullying [21]–[23]. Bullying is more likely to occur in schools with a lousy climate [24]. Other scholars also revealed that more bullying occurs in schools with a more hostile atmosphere and a more positive school climate resulting in lower bullying incidents [25]–[27]. Students who participate in bullying as perpetrators, victims, or both have more negative perceptions of school climate, although these perceptions depend on the specific aspects of the school climate examined [28]. Therefore, creating a positive and conducive school climate is essential for stakeholders. If schools succeed in building a good climate, it will encourage the creation of a good environment and, in the long run, reduce cases of cyberbullying in schools.

It is not just the school climate that needs attention to reduce cyberbullying cases. Other aspects, such as social support, are also very vital. In previous studies, social support is often mentioned as a factor that triggers cases of cyberbullying [29], [30]. Empirically, social support has been shown to correlate negatively with cyberbullying involvement variables [31], [32]. Other studies also state that low social support can increase the chances of cyberbullying [30]. Students can become victims of cyberbullying if they have low self-esteem, low social support, and low social self-efficacy [33]. In addition, higher parental consent is associated with a lower risk of involvement in cyberbullying [34].

In other evidence, cyberbullying victims often struggle with social skills and peer relationships. Students who experience difficulties in interpersonal relationships outside of school are more likely to be targets of cyberbullying, even though using ICT as a means of communication is common [35]. A lack of social skills can cause people to act insensitive toward others or get out of control emotionally [36]. In addition, antisocial behavior is often associated with poor social skills. That is why it is so important for schools to focus on teaching student's strong interpersonal skills. If someone has high social self-efficacy, they will develop this ability or social intelligence. Social self-efficacy is an additional social aspect that describes how adolescents' beliefs perceive their social position and resources. According to previous studies, individuals with high social self-efficacy form positive peer relationships. Conversely, negative peer relationships result from low social self-efficacy [37].

Several studies have found a correlation between poor social skills and bullying behavior [38], [39]. Lack of appropriate social skills and interpersonal difficulties in communicating with peers and close friends can increase the likelihood of becoming a victim of cyberbullying [40]. However, other studies have shown contradictory results, namely that there is no relationship between the level of social skills and cyberbullying among high school students [41]. Different findings are also shown by Savage and Tokunaga [42], someone with low social skills is not a reliable predictor of engaging in cyberbullying. This means there is still uncertainty about the role of social self-efficacy in predicting student cyberbullying behavior.

Referring to existing literature and previous empirical studies, the role of school climate, social support, and social self-efficacy has been separately discussed in students' cyberbullying behavior. Until now, we have not found studies that integratively examine the involvement of school climate, social support, and social self-efficacy in cyberbullying behavior among high school students. Therefore, this study investigates the effect of school climate, social support, and social self-efficacy on cyberbullying behavior. In addition, we also examine the mediating role of social self-efficacy on the impact of school climate and social support on high school students' cyberbullying behavior. This study is expected to be a reference for the literature to reduce cyberbullying behavior in schools. The conceptual model of this study is shown in Figure 1.

Based on the relationship between each of the important factors that influence cyberbullying behavior shown in Figure 1, we have several hypotheses in this study: i) school climate has a negative effect on cyberbullying behavior of high school students; ii) social support has a negative effect on cyberbullying behavior of high school students; iii) social self-efficacy has a negative effect on high school students' cyberbullying behavior; iv) social self-efficacy mediates the effect of school climate on high school students' cyberbullying behavior; and v) social self-efficacy mediates the effects of social support on high school students' cyberbullying behavior.

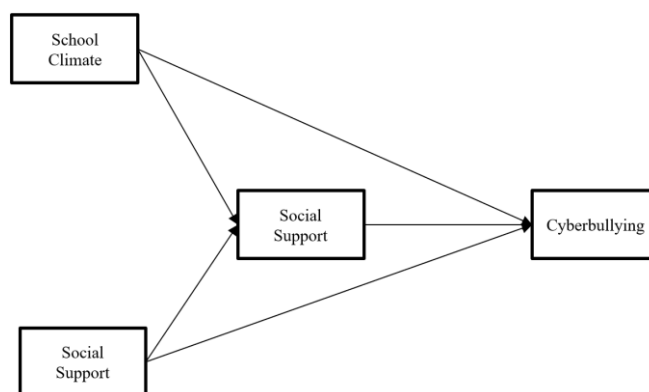


Figure 1. Conceptual model

## 2. RESEARCH METHOD

This study uses a quantitative research approach. Quantitative research emphasizes objective phenomena related to cyberbullying which are studied through quantitative data collection and statistical analysis [43], [44]. Specifically, this study uses ex-post facto research to find one or more effects (dependent variable) and examines the data by tracing back and looking at the factors that cause, relate, and interpret [45]. Public senior high school students at three schools in Kupang City, East Nusa Tenggara Province, Indonesia were involved in this study. The total student population is 480 and the sample size is 290 [46]. There were 290 students filled out the questionnaire completely. Selection of respondents using a simple random sampling technique. The age of the students ranged from 15 to 20 years ( $M=16.71$  years,  $SD=0.873$  years). The students involved included 103 male students (35.5%) and 187 female students (64.5%); 35 students from grade 1, 98 students from grade 2, and 157 from grade 3.

Data collection used an online-based self-administered questionnaire method. The questionnaire was developed online using the Google Form platform. The use of Google Forms allows the distribution of data to be easier and faster. One of the counseling guidance teachers at each school helped distribute the online questionnaire link to students at their school via the WhatsApp Group. Completing the complete questionnaire takes approximately 10 minutes.

The Inventory of School Climate questionnaire [47] was used to determine students' impressions of school climate. This study uses three of the ten indicators of the original questionnaire with a total of 14 items: consistency and clarity of rules and expectations (5 items; for example, if some students are acting up in class, the teacher will do something about it), positive peer interactions (5 items; for example, students get to know each other well in classes), and support for cultural pluralism (4 items; for instance, your teachers show that they think it is essential for students of different races and cultures at your school to get along with each other). This questionnaire uses five Likert scales ranging from strongly agree (5) to strongly disagree (1).

Student social support data is disclosed using the Social Support Questionnaire [48]. This questionnaire measures students' opinions of their social support from various sources, including help from family, friends, and significant others support. There are a total of 12 questions, with four questions for each source of support. Four items for family support (for instance, my family tries to help me), four articles for friend support (for example: my friends try to help me), and four things for significant other support (for instance, there is a particular person who is around when I am in need). This questionnaire uses five Likert scales ranging from strongly agree (5) to strongly disagree (1).

We used the social self-efficacy questionnaire [49], [50], which we have developed. This questionnaire expresses students' beliefs about their ability to establish social relationships with peers. The original questionnaire consisted of 24 items consisting of 8 academic self-efficacy items, eight social self-efficacy items, and eight emotional self-efficacy items. However, this study only uses social self-efficacy indicators to adjust study objectives. The number of items used in the social self-efficacy questionnaire is eight (for instance, how well can you express your opinion when other classmates disagree with you?). This questionnaire uses a Likert scale with five alternative answers consisting of very well (5), moderately well (4), neutral (3), not too well (2), and not at all (1).

Finally, we used the cyberbullying behavior questionnaire [51] to measure students' perceptions of cyberbullying behavior. This questionnaire measures students' exposure to cyberbullying through internet-based media, cell phones, email, and other means. There are a total of 11 questions in this questionnaire. This questionnaire uses a Likert scale with five possible answers, namely never (5), rarely (4), sometimes (3), often (2), and very often (1).

The results of the validity and reliability tests on the school climate, social support, social self-efficacy, and cyberbullying behavior questionnaires are shown in Table 1. The results of validity measurements on all questionnaires show valid (0.324\*\*~0.981\*\*) and reliable (0.900~0.986) can be shown in Table 1. These findings indicate that the questionnaire accurately measures students' perceptions of school climate, social support, social self-efficacy, and cyberbullying behavior.

Table 1. Validity and reliability of the questionnaire

Variables	Validity	Reliability
School climate	0.909**~0.917**	0.900
Social support	0.910**~0.967**	0.934
Social self-efficacy	0.324**~0.950**	0.948
Cyberbullying behavior	0.631**~0.981**	0.986

\*\*\* Very small p-value (less than 0.001)

In the first step of data analysis, we used SPSS version 20 to test the validity and reliability of the items for each variable. In addition, we also use structural equation modeling (SEM) analysis with Amos 18 software to test models and hypotheses. In the first stage, a study was performed to test the fit model by referring to the appropriate model criteria [52], [53]. Furthermore, using a significance level of 0.05, the research hypothesis was investigated by testing the acquisition of p values on the regression path. If the p-value is more than 0.05, the hypothesis is rejected; accepted if the p-value is less than 0.05. Testing the relevance of the role of social self-efficacy mediators in this study model utilizes the estimated bootstrapping confidence interval technique. This study uses 200 bootstrap samples with a 90% confidence level.

### 3. RESULTS

According to the findings of this study, the respondents comprised 290 pupils attending three high schools located in Kupang City, East Nusa Tenggara Province, Indonesia. Most respondents were in the third grade. The information for this study was gathered via an online survey. Additional comprehensive respondent descriptive data pertaining to the subjects of the research is displayed in Table 2.

Table 2. Respondents' descriptive data

Attribute	Categories	N	%
Gender	Male	103	35.5
	Female	187	64.5
Degree	1st grade	35	12.1
	2nd grade	98	33.8
	3rd grade	157	54.1
Age	15 years old	11	3.8
	16 years old	119	41
	17 years old	115	39.7
	18 years old	36	12.4
	19 years old	7	2.4
	20 years old	2	0.7
Internet usage frequency	1-3 hours	119	41
	4-6 hours	94	32.4
	7-9 hours	28	9.7

#### 3.1. SEM analysis of cyberbullying behavior

Furthermore, before we test the hypothesis of this study, it is necessary to test the model's fit. The results of the path model fit index test are shown in Figure 2 with the acquisition of the following criteria ( $\chi^2/df=4.760$ , RMSEA=0.074, CFI=0.920, GFI=0.900, TLI=0.890, AGFI=0.900, and RMR=0.042). That is, when referring to the criteria for the fit model, the test results can be concluded that the model can be accepted as a good fit model [52], [54].

In the next step, we test the hypothesis on the path model developed. Using the p-values as benchmarks in each regression line, we investigated the study hypotheses to establish the significance of the effect of exogenous variables on endogenous variables. Testing the hypothesis of this study was separated into two categories, namely the direct effect hypothesis and the indirect effect hypothesis. The results of testing the direct effect on the study model are shown in Table 3. The first hypothesis test aims to prove the effect of school climate on cyberbullying behavior of high school students. The results of the first hypothesis test show that school climate has a negative impact on high school students' cyberbullying behavior (estimate=-0.495; p-value=\*\*\*; hypothesis 1 is accepted). Similar findings were also shown in testing the third hypothesis, which

proved that social self-efficacy has a negative effect on high school students' cyberbullying behavior (estimate=-0.413; p-value= \*\*\*; hypothesis 3 is accepted). Different results were shown in testing the second hypothesis, which showed that social support did not significantly negatively affect high school students' cyberbullying behavior (estimate=-0.014; p-value= 0.631; hypothesis 2 was rejected).

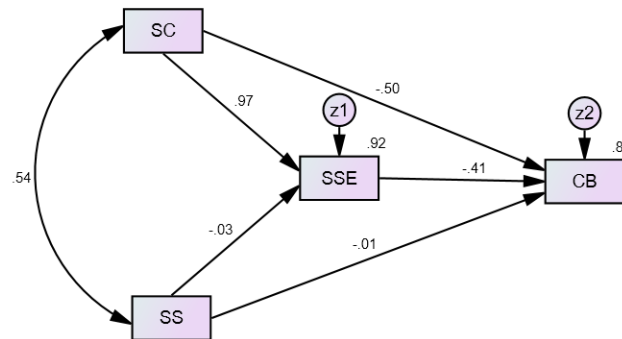


Figure 2. SEM analysis results

Table 3. The results of the path analysis among variables (standardized regression weights)

	Estimate	S.E.	C.R.	P
School climate → Cyberbullying behavior	-0.495	0.224	-5.404	***
Social support → Cyberbullying behavior	-0.014	0.095	-0.48	0.631
Social self-efficacy → Cyberbullying behavior	-0.413	0.093	-4.633	***
School climate → Social self-efficacy	0.974	0.046	50.045	***
Social support → Social self-efficacy	-0.026	0.06	-1.348	0.178

Note. \*\*\* = Correlation is significant at the 0.001 level

Furthermore, we use the estimated bootstrapping confidence interval to examine the role of social mediation of self-efficacy in this study model. There were 200 bootstrap samples with a 90% confidence level used in the mediation significance test. The results of testing the role of social self-efficacy mediators on the effects of school climate and social support on cyberbullying behavior of high school students are shown in Table 4. The fourth hypothesis test shows that social self-efficacy mediates a significant negative effect of school climate on cyberbullying behavior of high school students (estimate=-0.402; p-value=0.009; confidence interval (CI)) =-0.597~-0.228; hypothesis 4 is accepted). Finally, the fifth hypothesis test proved that social self-efficacy did not significantly mediate the effect of social support on high school students' cyberbullying behavior (estimate=0.011; p-value=0.128; CI=-0.001~0.031; hypothesis 4 is rejected).

Table 4. The result of bootstrapping in testing the mediator social self-efficacy

	Path	SC→CB	SS→CB	SSE→CB	SC→SSE	SS→SSE
Standardized direct effect	Estimate	-0.495	-0.014	-0.413	0.974	-0.026
	P-value	0.009	0.716	0.010	0.007	0.163
Standardized indirect effect (SSE mediator)	Estimate	-0.402	0.011			
	P-value	0.009	0.128			
Standardized total effect	Estimate	-0.897	-0.003	-0.413	0.974	-0.026
	P-value	0.009	0.883	0.010	0.007	0.163

Note: SC = school climate; SS= social support; SSE= social self-efficacy; CB= cyberbullying behavior

#### 4. DISCUSSION

New forms of bullying, known as cyberbullying, have emerged directly from the proliferation of electronic entertainment and communication technologies. Various studies have shown that the rise of ICTs has led to an increase in the incidence of bullying involving these tools [16], [55]. The negative impacts arising from cyberbullying have encouraged educational practitioners to try to reduce the occurrence of cyberbullying in the school environment [56]. Even though many academic studies have addressed the problem of cyberbullying in the classroom, it is still a severe problem. However, how the role of school climate, social support, and social self-efficacy all interact to influence the tendency of high school students to engage in cyberbullying behavior still needs to be clarified. Therefore, this study aims to analyze the influence of high school students' school climate, social support, and social self-efficacy on their participation in cyberbullying behavior.

The results of our study reveal that two antecedent factors directly influence high school students' cyberbullying behavior, namely school climate, and social self-efficacy. The first hypothesis test proves that school climate has a direct negative effect on cyberbullying behavior. This finding means that a positive school climate encourages a reduction in high school students' cyberbullying behavior. This is consistent with previous studies, which revealed that cyberbullying often occurs in adverse school environments and unsafe and comfortable school situations [26], [27]. In addition, a positive school atmosphere can reduce bullying and violence, such as threats and physical violence [57], [58]. To minimize cases of cyberbullying, schools must foster an atmosphere characterized by consistency and clarity of norms and expectations, positive peer interactions, and support for cultural heterogeneity. When a student perceives his school as a safe place with consistent rules, fewer students bully others, and fewer children are harassed [59]. Collecting violation points to enforce school discipline is essential for controlling negative behavior and student violations.

Other findings in this study prove that social self-efficacy is an essential predictor of the emergence of high school students' cyberbullying behavior. Social self-efficacy directly has a negative effect on students' cyberbullying behavior. This means that the higher students' beliefs about their social relations abilities will reduce cyberbullying behavior at school. Social self-efficacy will encourage creating positive relationships between students and their friends to avoid potential acts of bullying. These results are relevant to previous studies, which state that students who have interpersonal interaction problems outside of school are more likely to experience cyberbullying [35]. Research has shown that people with high social self-efficacy have good relationships with their peers. On the other hand, low social self-efficacy leads to poor relationships with peers [37]. This result also refutes previous studies which state that individuals who have low social skills are not reliable predictors of engaging in cyberbullying [42]. The concept of social self-efficacy is defined as students' beliefs in their own ability to succeed in new tasks or in new situations, beliefs related to self-understanding, self-confidence, social reflection, and feelings about how competent they are in dealing with their environment. Motivating students to believe in their own ability to form and maintain healthy relationships is very important. Students with poor interpersonal skills are more likely to be involved in cyberbullying incidents as victims or bullies. In this context, education can play a role in helping students develop a sense of social self-efficacy. Having confidence in one's abilities is very important to get through difficult situations [60].

This study has also confirmed that students' social support has no significant direct effect on students' cyberbullying behavior. The social support they feel from family, friends, and significant others do not play an essential role in student cyberbullying behavior. Of course, these findings differ from previous studies, which state that cyberbullying is more likely to occur when inadequate social support [30]. Cyberbullying behavior, such as posting demeaning comments or hateful words, demeaning or unwanted images without their consent or knowledge, embarrassing or threatening others via cell phone messages, and other harassing behavior in digital form is not due to the lack of social support they feel. Even though the results of this study state that social support does not significantly affect students' cyberbullying behavior, teachers must still try to build their social support in the learning process.

Furthermore, the mediating role of social self-efficacy is only proven to strengthen the effect of school climate on high school students' cyberbullying behavior. The higher the students' beliefs regarding their social skills, the more significant the negative impact of the school climate on their cyberbullying behavior. The type of mediation role for this finding is partial mediation. To have partial mediation between the independent (school climate) and dependent (cyberbullying behavior) variables, both the mediator (social self-efficacy) and the dependent (cyberbullying behavior) must have a substantial relationship. Social self-efficacy's contribution to school climate's effect significantly reduces high school students' cyberbullying behavior. Apart from creating a pleasant school atmosphere through clear and consistent application of school rules, positive peer interactions, and mutual respect for differences, it is essential to develop students' social self-efficacy. Students with a reasonable opinion about their social relationship skills will create healthy peer relationships. Cyberbullying will be less likely to occur if healthy relationships are formed between colleagues.

Meanwhile, social self-efficacy was not proven to mediate the effects of social support on high school students' cyberbullying behavior. The findings of this study are reasonable, considering that social support has also been shown to have no direct effect on either social self-efficacy or students' cyberbullying behavior. The results of this study contrast with previous studies, which state that self-efficacy can mediate between environmental factors and behavior [61]. When compared to the school climate, social support does not have a significant impact on reducing student cyberbullying behavior. This means that building a positive school environment or climate is vital in strengthening social self-efficacy while reducing student cyberbullying behavior. Ultimately, it is expected to minimize cyberbullying among high school students. The results of this study also provide important implications for educational practitioners, especially teachers, to build a fun and safe learning environment for students. In addition, various programs to monitor harmful social media use must be carried out. At least, through this monitoring program, it is hoped that students will be aware of the positive use of media and avoid online intimidation of their friends.

## 5. CONCLUSION

This study strengthens the framework of social cognitive theory and contributes significantly to the cyberbullying treatment literature. In short, creating a positive school climate that includes consistency and clarity of rules, positive peer interactions, and support for cultural pluralism is necessary to reduce cases of cyberbullying in schools. In addition, strengthening students' social self-efficacy is of particular concern to improve their social skills when interacting with friends through offline and online communication. Meanwhile, social support has been shown to significantly not predict high school students' cyberbullying behavior. Therefore, this study provides a solid basis for further empirical research and designing future intervention programs to promote the reduction of student cyberbullying behavior.

We realize that this research is not without limitations. First, the research design has limitations. This study relied on self-report data. Therefore, the validity of the information may be potentially undermined by several factors, such as careless responses, consent, social desirability effects, and intentional exaggerations of responses. Future studies should seek to combine reports from multiple sources, such as teachers, parents, and classmates, to increase the reliability of the data provided. In addition, all students in this research sample are from public schools in Indonesia. This means that the location and socioeconomic status of the participants may limit how widely the results can be generalized. In the future, researchers should try to get samples from all over the world.

## REFERENCES

- [1] Í. H. Çankaya and Ç. Tan, "Effect of cyber bullying on the distrust levels of preservice teachers: considering internet addiction as a mediating variable," *Procedia Computer Science*, vol. 3, pp. 1353–1360, 2011, doi: 10.1016/j.procs.2011.01.015.
- [2] G. Catone *et al.*, "The drawbacks of information and communication technologies: interplay and psychopathological risk of nomophobia and cyber-bullying, results from the bullying and youth mental health Naples study (BYMHNS)," *Computers in Human Behavior*, vol. 113, p. 106496, Dec. 2020, doi: 10.1016/j.chb.2020.106496.
- [3] Y. Urano, R. Takizawa, M. Ohka, H. Yamasaki, and H. Shimoyama, "Cyber bullying victimization and adolescent mental health: The differential moderating effects of intrapersonal and interpersonal emotional competence," *Journal of Adolescence*, vol. 80, no. 1, pp. 182–191, Apr. 2020, doi: 10.1016/j.adolescence.2020.02.009.
- [4] L. N. A. Nhung, A. Basuki, T. Mahfud, and I. N. Saputro, "Cyber-bullying among adolescent at school: a literature review," *International Journal of Psychological Rehabilitation*, vol. 24, no. 7, pp. 1475–1492, 2020.
- [5] T. Schoeler, L. Duncan, C. M. Cecil, G. B. Ploubidis, and J.-B. Pingault, "Quasi-experimental evidence on short- and long-term consequences of bullying victimization: A meta-analysis.," *Psychological Bulletin*, vol. 144, no. 12, pp. 1229–1246, Dec. 2018, doi: 10.1037/bul0000171.
- [6] R. M. Kowalski, G. W. Giumetti, A. N. Schroeder, and M. R. Lattanner, "Bullying in the digital age: a critical review and meta-analysis of cyberbullying research among youth," *Psychological Bulletin*, vol. 140, no. 4, pp. 1073–1137, Jul. 2014, doi: 10.1037/a0035618.
- [7] W. Craig *et al.*, "Social media use and cyber-bullying: A cross-national analysis of young people in 42 countries," *Journal of Adolescent Health*, vol. 66, no. 6, pp. S100–S108, Jun. 2020, doi: 10.1016/j.jadohealth.2020.03.006.
- [8] K. R. Mehari, A. D. Farrell, and A.-T. H. Le, "Cyberbullying among adolescents: measures in search of a construct," *Psychology of Violence*, vol. 4, no. 4, pp. 399–415, Oct. 2014, doi: 10.1037/a0037521.
- [9] C. M. Kokkinos and N. Antoniadou, "Cyber-bullying and cyber-victimization among undergraduate student teachers through the lens of the general aggression model," *Computers in Human Behavior*, vol. 98, pp. 59–68, 2019, doi: 10.1016/j.chb.2019.04.007.
- [10] K. Gahagan, J. M. Vaterlaus, and L. R. Frost, "College student cyberbullying on social networking sites: conceptualization, prevalence, and perceived bystander responsibility," *Computers in Human Behavior*, vol. 55, pp. 1097–1105, Feb. 2016, doi: 10.1016/j.chb.2015.11.019.
- [11] Y. Zhao, X. Chu, and K. Rong, "Cyberbullying experience and bystander behavior in cyberbullying incidents: the serial mediating roles of perceived incident severity and empathy," *Computers in Human Behavior*, vol. 138, 2023, doi: 10.1016/j.chb.2022.107484.
- [12] C. L. Huang, Y. Alimu, S. C. Yang, and S. Kang, "What you think is a joke is actually cyberbullying: the effects of ethical dissonance, event judgment and humor style on cyberbullying behavior," *Computers in Human Behavior*, vol. 142, 2023, doi: 10.1016/j.chb.2023.107670.
- [13] A. Maftai and C. Măirean, "Not so funny after all! Humor, parents, peers, and their link with cyberbullying experiences," *Computers in Human Behavior*, vol. 138, Jan. 2023, doi: 10.1016/j.chb.2022.107448.
- [14] C. P. Barlett, C. S. Madison, J. B. Heath, and C. C. DeWitt, "Please browse responsibly: a correlational examination of technology access and time spent online in the barlett gentile cyberbullying model," *Computers in Human Behavior*, vol. 92, pp. 250–255, Mar. 2019, doi: 10.1016/j.chb.2018.11.013.
- [15] I. Marín-López, I. Zych, R. Ortega-Ruiz, C. P. Monks, and V. J. Llorent, "Empathy online and moral disengagement through technology as longitudinal predictors of cyberbullying victimization and perpetration," *Children and Youth Services Review*, vol. 116, Sep. 2020, doi: 10.1016/j.childyouth.2020.105144.
- [16] R. M. Kowalski, S. P. Limber, and P. W. Agatston, *Cyber bullying: Bullying in the digital age*. Blackwell Publishing, 2008.
- [17] J. Barlińska, A. Szuster, and M. Winiewski, "Cyberbullying among adolescent bystanders: role of affective versus cognitive empathy in increasing prosocial cyberbystander behavior," *Frontiers in Psychology*, vol. 9, 2018, doi: 10.3389/fpsyg.2018.00799.
- [18] C. Zhu, S. Huang, R. Evans, and W. Zhang, "Cyberbullying among adolescents and children: a comprehensive review of the global situation, risk factors, and preventive measures," *Frontiers in Public Health*, vol. 9, Mar. 2021, doi: 10.3389/fpubh.2021.634909.
- [19] K. Kircaburun, Z. Demetrovics, O. Király, and M. D. Griffiths, "Childhood emotional trauma and cyberbullying perpetration among emerging adults: a multiple mediation model of the role of problematic social media use and psychopathology," *International Journal of Mental Health and Addiction*, vol. 18, no. 3, pp. 548–566, Jun. 2020, doi: 10.1007/s11469-018-9941-5.
- [20] A. Bandura, *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs N.J.: Prentice-Hall, 1986.
- [21] V. J. Llorent, D. P. Farrington, and I. Zych, "School climate policy and its relations with social and emotional competencies, bullying and cyberbullying in secondary education," *Revista de Psicodidáctica (English ed.)*, vol. 26, no. 1, pp. 35–44, Jan. 2021, doi: 10.1016/j.psicoe.2020.11.002.




- [22] G. Kashy-Rosenbaum and D. Aizenkot, "Exposure to cyberbullying in WhatsApp classmates' groups and classroom climate as predictors of students' sense of belonging: a multi-level analysis of elementary, middle and high schools," *Children and Youth Services Review*, vol. 108, Jan. 2020, doi: 10.1016/j.chidyouth.2019.104614.
- [23] K. Charalampous, M. Ioannou, S. Georgiou, and P. Stavrinides, "Cyberbullying, psychopathic traits, moral disengagement, and school climate: the role of self-reported psychopathic levels and gender," *Educational Psychology*, vol. 41, no. 3, pp. 282–301, Mar. 2021, doi: 10.1080/01443410.2020.1742874.
- [24] J. D. Unnever and D. G. Cornell, "Middle school victims of bullying: who reports being bullied?" *Aggressive Behavior*, vol. 30, no. 5, pp. 373–388, Oct. 2004, doi: 10.1002/ab.20030.
- [25] U. Magfirah and M. A. Rachmawati, "The relationship between school climate and the tendency of bullying behavior," (in Indonesian), *Jurnal Universitas Islam Indonesia*, pp. 1–10, 2009.
- [26] X. Wang, F. Zhao, J. Yang, and L. Lei, "School climate and adolescents' cyberbullying perpetration: a moderated mediation model of moral disengagement and friends' moral identity," *Journal of Interpersonal Violence*, vol. 36, no. 17–18, pp. NP9601–NP9622, Jul. 2021, doi: 10.1177/0886260519860089.
- [27] C. Yang, J. D. Sharkey, L. A. Reed, and E. Dowdy, "Cyberbullying victimization and student engagement among adolescents: does school climate matter?" *School Psychology*, vol. 35, no. 2, pp. 158–169, Mar. 2020, doi: 10.1037/spq0000353.
- [28] A. B. Nickerson, D. Singleton, B. Schnurr, and M. H. Collen, "Perceptions of school climate as a function of bullying involvement," *Journal of Applied School Psychology*, vol. 30, no. 2, pp. 157–181, 2014, doi: 10.1080/15377903.2014.888530.
- [29] Y. Wang, "Understanding the role of social factors in cyberbullying at work," *Computers in Human Behavior*, vol. 134, Sep. 2022, doi: 10.1016/j.chb.2022.107325.
- [30] N. Marengo *et al.*, "Cyberbullying and problematic social media use: an insight into the positive role of social support in adolescents—data from the health behaviour in school-aged children study in Italy," *Public Health*, vol. 199, pp. 46–50, Oct. 2021, doi: 10.1016/j.puhe.2021.08.010.
- [31] T. Heiman and D. Olenik-Shemesh, "Cyberbullying involvement of adolescents with low vision compared to typical adolescents, as related to perceived social support," *Journal of Aggression, Maltreatment & Trauma*, vol. 26, no. 2, pp. 105–115, Feb. 2017, doi: 10.1080/10926771.2016.1228725.
- [32] Y.-K. Cho and J. Yoo, "Cyberbullying, internet and SNS usage types, and perceived social support: a comparison of different age groups," *Information, Communication & Society*, vol. 20, no. 10, pp. 1464–1481, Oct. 2017, doi: 10.1080/1369118X.2016.1228998.
- [33] D. Olenik-Shemesh and T. Heiman, "Cyberbullying victimization in adolescents as related to body esteem, social support, and social self-efficacy," *The Journal of Genetic Psychology*, vol. 178, no. 1, pp. 28–43, 2017, doi: 10.1080/00221325.2016.1195331.
- [34] H. Sampasa-Kanyinga, F. Bakwa-Kanyinga, H. A. Hamilton, and J.-P. Chaput, "Cyberbullying involvement, parental support, and cannabis use among adolescents," *Child Abuse & Neglect*, vol. 133, Nov. 2022, doi: 10.1016/j.chiabu.2022.105830.
- [35] S. Seepersad, "Coping with loneliness: adolescent online and offline behavior," *CyberPsychology & Behavior*, vol. 7, no. 1, pp. 35–39, Feb. 2004, doi: 10.1089/109493104322820093.
- [36] T. Mahfud, I. Siswanto, D. S. Wijayanto, and P. F. Puspitasari, "Antecedent factors of vocational high school students' readiness for selecting careers: a case in Indonesia," *Jurnal Cakrawala Pendidikan*, vol. 39, no. 3, p. 633, 2020, doi: 10.21831/cp.v39i3.32310.
- [37] S. A. Erath, K. S. Flanagan, K. L. Bierman, and K. M. Tu, "Friendships moderate psychosocial maladjustment in socially anxious early adolescents," *Journal of Applied Developmental Psychology*, vol. 31, no. 1, p. 15, 2010, doi: 10.1016/j.appdev.2009.05.005.
- [38] L. N. Jenkins, M. K. Demaray, S. S. Fredrick, and K. H. Summers, "Associations among middle school students' bullying roles and social skills," *Journal of School Violence*, vol. 15, no. 3, pp. 259–278, Jul. 2016, doi: 10.1080/15388220.2014.986675.
- [39] P. R. Sterzing, P. T. Shattuck, S. C. Narendorf, M. Wagner, and B. P. Cooper, "Bullying involvement and autism spectrum disorders: prevalence and correlates of bullying involvement among adolescents with an autism spectrum disorder," *Archives of Pediatrics & Adolescent Medicine*, vol. 166, no. 11, pp. 1058–1064, Nov. 2012, doi: 10.1001/archpediatrics.2012.790.
- [40] R. Navarro, S. Yubero, E. Larrañaga, and V. Martínez, "Children's cyberbullying victimization: associations with social anxiety and social competence in a Spanish sample," *Child Indicators Research*, vol. 5, no. 2, pp. 281–295, Jun. 2012, doi: 10.1007/s12187-011-9132-4.
- [41] M. A. R. Albantan, "Social skills and cyberbullying behavior among students in Hail from the perspective of social work," *Cypriot Journal of Educational Sciences*, vol. 16, no. 1, pp. 96–113, Feb. 2021, doi: 10.18844/cjes.v16i1.5512.
- [42] M. W. Savage and R. S. Tokunaga, "Moving toward a theory: testing an integrated model of cyberbullying perpetration, aggression, social skills, and Internet self-efficacy," *Computers in Human Behavior*, vol. 71, p. 353, 2017, doi: 10.1016/j.chb.2017.02.016.
- [43] M. D. Gall, J. P. Gall, and W. R. Borg, *Educational research: An introduction*, 7th ed. Boston, MA: Allen and Bacon, 2003.
- [44] T. Mahfud, N. M. Aprilly, I. N. Saputro, I. Siswanto, and S. Suyitno, "Developing and validating the multidimensional industry commitment scales: the perspective of vocational high school students," *International Journal of Evaluation and Research in Education (IJERE)*, vol. 11, no. 1, pp. 361–368, 2022, doi: 10.11591/ijere.v11i1.21840.
- [45] L. R. Gay, *Educational research*. London: Merrill Publishing Company, 1981.
- [46] T. Yamane, *Statistics: An introductory analysis*, 2nd Ed. New York: Harper and Row, 1967.
- [47] S. Brand, R. Felner, M. Shim, A. Seitsinger, and T. Dumas, "Middle school improvement and reform: development and validation of a school-level assessment of climate, cultural pluralism, and school safety," *Journal of Educational Psychology*, vol. 95, no. 3, pp. 570–588, Sep. 2003, doi: 10.1037/0022-0663.95.3.570.
- [48] G. D. Zimet, N. W. Dahlem, S. G. Zimet, and G. K. Farley, "The multidimensional scale of perceived social support," *Journal of Personality Assessment*, vol. 52, no. 1, pp. 30–41, Mar. 1988, doi: 10.1207/s15327752jpa5201\_2.
- [49] P. Muris, "A brief questionnaire for measuring self-efficacy in youths," *Journal of Psychopathology and Behavioral Assessment*, vol. 23, no. 3, pp. 145–149, 2001.
- [50] T. Mahfud, Y. Mulyani, R. Setyawati, and N. Kholifah, "The influence of teaching quality, social support, and career self-efficacy on the career adaptability skills: evidence from a polytechnic in Indonesia," *Integration of Education*, vol. 26, no. 1, pp. 27–41, Mar. 2022, doi: 10.15507/1991-9468.106.026.202201.027-041.
- [51] E. M. Selkie, R. Kota, and M. Moreno, "Cyberbullying behaviors among female college students: witnessing, perpetration, and victimization," *College Student Journal*, vol. 50, no. 2, pp. 278–287, 2016.
- [52] E. J. Phedazur, *Multiple regression in behavioral research*. Victoria: Thomson Learning, 1997.
- [53] J. Hair, W. C. Black, B. J. Babin, and R. E. Anderson, *Multivariate data analysis: a global perspective*, 7th ed. Upper Saddle River: Pearson Prentice Hall, 2010.
- [54] J. L. Arbuckle, *Amos users' guide: version 3.6*. Chicago: Small Waters Corporation, 1997.
- [55] E. Calvete, I. Orue, A. Estévez, L. Villardón, and P. Padilla, "Cyberbullying in adolescents: modalities and aggressors' profile," *Computers in Human Behavior*, vol. 26, no. 5, pp. 1128–1135, Sep. 2010, doi: 10.1016/j.chb.2010.03.017.






- [56] Y. Peled, "Cyberbullying and its influence on academic, social, and emotional development of undergraduate students," *Heliyon*, vol. 5, no. 3, Mar. 2019, doi: 10.1016/j.heliyon.2019.e01393.
- [57] D. Wilson, "The interface of school climate and school connectedness and relationships with aggression and victimization," *Journal of School Health*, vol. 74, no. 7, pp. 293–299, Sep. 2004, doi: 10.1111/j.1746-1561.2004.tb08286.x.
- [58] D. Olweus, "Bullying at school: basic facts and effects of a school based intervention program," *Journal of Child Psychology and Psychiatry*, vol. 35, no. 7, pp. 1171–1190, Oct. 1994, doi: 10.1111/j.1469-7610.1994.tb01229.x.
- [59] M. Eliot, D. Cornell, A. Gregory, and X. Fan, "Supportive school climate and student willingness to seek help for bullying and threats of violence," *Journal of School Psychology*, vol. 48, no. 6, pp. 533–553, Dec. 2010, doi: 10.1016/j.jsp.2010.07.001.
- [60] P. H. Miller, *Theories of developmental psychology*, 5th ed. New York, NY: Worth Publishers, 2011.
- [61] A. Bandura, "Self-efficacy mechanism in human agency," *American Psychologist*, vol. 37, no. 2, pp. 122–147, Feb. 1982, doi: 10.1037/0003-066X.37.2.122.

## BIOGRAPHIES OF AUTHORS






**Fredik Lambertus Kollo**    is a lecturer on Pancasila and Civic Education Department, Faculty of Teacher Training and Education, Universitas Nusa Cendana, Indonesia. Currently he is lecturer gender dan political science. His research interests focus on Gender, Civic and Citizenship education, and Political Science. He has written book chapters and other articles published in journals. He can be contacted at email: fredik.lambertus.kollo@staf.undana.ac.id.






**Zulkarnain**    is assistant professor on Pancasila and citizenship education of Balikpapan State Polytechnic. Currently he is a lecturer Pancasila, Citizenship, and anti-corruption education. His research interest focuses of research on Radicalism, Gender, Citizenship education, and Political Science. He has written book chapters and other articles published in national and international journals. He can be contacted at email: zulkarnain@poltekba.ac.id.



**Tuatul Mahfud**    is an Associate Professor on vocational education and training of Balikpapan State Polytechnic. He completed PhD program in Technology and Vocational Education at Yogyakarta State University. His research interest focuses on management in vocational education and training, workplace learning, vocational behavior, and career development. He has published the paper in Scopus indexed journal and Web of Science. He is also the author of books on the strategy of writing and publication of articles in reputable international journals. He can be contacted at email: tuatul.mahfud@poltekba.ac.id.



**Matang**    is a lecturer on Universitas Muhammadiyah Pekanbaru. Currently he is PhD program candidate in Civic Education Department on Universitas Pendidikan Indonesia. His research interest focuses of research on Digital Citizenship, Pancasila, and Citizenship education. He has written book chapters "Civic engagement and political participation in Indonesian young citizen" and other articles published in national and international journals. He can be contacted at email: matang@upi.edu.