



Student Involvement in Cyberbullying: A School Climate Perspective

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Abstract

This study examined the relationship between school climate and cyberbullying. The subjects were 90 high school students (grades 10 and 11) in Lampung. A quantitative correlational approach was employed, utilizing scales to measure cyberbullying and school climate. Cluster random sampling was used as the sampling technique. The data were analyzed using Spearman's Rho correlation via the Statistical Product and Service Solutions (SPSS) for Windows 23.0 software. The study revealed no significant relationship between school climate and cyberbullying among students in Pringsewu, Lampung ($r = 0.142$; significance level = 0.181); consequently, the research hypothesis was rejected. These findings indicate that cyberbullying is likely influenced by factors other than school climate, such as social media usage controls, parenting styles, individual characteristics, emotional regulation, and the intensity of internet use. The results suggest that school climate is not necessarily the primary factor in the occurrence of cyberbullying, given that such behaviour predominantly takes place in the digital realm. Therefore, a more comprehensive understanding of cyberbullying requires examining psychological, social, and technological aspects.

Keywords: cyberbullying, digital space, school climate

INTRODUCTION

The development of internet technology has transformed the way people communicate and the dynamics of social life (Kucuk et al., 2024). Alongside this development, internet usage in Indonesia has increased. Survey results from the Indonesian Internet Service Providers Association (APJII) indicate that Indonesia's internet users reached 221,563,479 in 2023 and rose 1.4% in 2024. By age group, Generation Z is the largest segment of internet users at 34.40%, followed by Millennials at 30.62%. Generation X accounts for 18.98%, Baby Boomers for 9.17%, and the pre-boomer generation for 0.24%.

Beyond age demographics, the distribution of internet users in Indonesia can also be viewed geographically. APJII reports that urban areas dominate, accounting for 69.5% of total internet users, while rural areas account for 30.5% (Asosiasi Penyelenggara Jasa Internet Indonesia, 2024).

Internet technology offers various benefits to society, including facilitating access to information, supporting learning, enhancing digital skills, and expanding communication and social participation (Livingstone et al., 2023). However, these benefits must be balanced with wise internet usage, as excessive use can lead to various negative consequences. Such impacts include problematic internet usage behaviours, mental health issues, and an increased risk of involvement in cyberbullying (Cai et al., 2023). These issues can affect an individual's psychological well-being (Keum et al., 2023). Research conducted by the Centre for Digital Society in 2021 involving 3,077 junior and senior high school students revealed that 45.35% of the students reported having been victims of cyberbullying, while 38.41% admitted to having acted as perpetrators (Asriani et al., 2021). These findings indicate that cyberbullying is an issue requiring attention, particularly among students. According to Chan et al. (2021), cyberbullying is aggressive behaviour carried out intentionally and repeatedly via electronic media directed at individuals who have limited ability to defend themselves.

Cyberbullying possesses characteristics that distinguish it from face-to-face bullying, namely anonymity, virtuality, and identity concealment (Wang & Ngai, 2020). In the online environment, perpetrators can conceal their identities, making it difficult for victims to identify who is bullying them (Zhu et al., 2021). This situation can lead to various negative impacts on the victim's psychological well-being, such as anxiety, depression, shame, and stress (Pérez-Martínez

et al., 2021). Furthermore, victims of cyberbullying may experience psychopathological symptoms, including sleep disturbances, reduced physical activity, and diminished face-to-face social interaction (Wong et al., 2021). Thus, cyberbullying is not merely an issue of social interaction in the digital realm; it also has the potential to affect the psychological state and daily lives of its victims.

Research on cyberbullying among adolescents has largely focused on individual factors such as self-control, emotional regulation, and psychological characteristics to explain the behaviour (Wachs et al., 2025); however, cyberbullying is not solely linked to individual traits but can also be influenced by the social environment in which students interact (Wang et al., 2021). Recent studies indicate that environmental factors, such as school climate, play a crucial role in shaping students' social behaviour (Del Toro & Wang, 2022). School climate refers to the social atmosphere in which students learn and develop. School climate includes clear rules, fair discipline, effective classroom management, empathetic communication, healthy interpersonal relationships, and a comfortable learning environment (Waji & Linggi, 2025). A positive school climate can foster strong teacher-student relationships, reduce delinquency, improve academic achievement, and lower bullying rates (Hord & Sommers, 2008). Positive social relationships within the school setting can also create a more protective environment for students; consequently, schools are better positioned to prevent cyberbullying by cultivating a safe, supportive school climate that supports student development (Sardessai-Nadkarni et al., 2021).

Therefore, schools need to foster a positive climate to prevent cyberbullying (Erbiçer et al., 2023). This research is expected to serve as a reference for schools and parents in developing prevention strategies and creating a safe, supportive environment for adolescent development.

RESEARCH METHODS

Approaches and Types of Research

This study employs a quantitative, correlational approach. Researchers analysed data obtained through research instruments, such as scores, using statistical software.

Research Subject

This study included 383 students from grades X and XI in senior high school. The study included 12 classes: six specialising in Mathematics and Natural Sciences (MIPA) and six in Social Sciences (IPS). Cluster random sampling was employed as the sampling technique. Through random selection, the study chose classes X MIPA 1, X IPS 2, and XI IPS 2 as the research sample, comprising 90 students. The sample size was determined based on Darmawan (2014) view that an ideal sample size falls within the range of 30 to 500.

Research Instruments

This study uses the cyberbullying scale developed by Willard (2007), which includes flaming, harassment, denigration, impersonation, outing, trickery, exclusion, and cyberstalking. This scale has a reliability coefficient of 0.948 and comprises 30 items. Meanwhile, the school climate scale was developed by DeWitt and Slade (2014) and consists of the aspects of engagement, empowerment and autonomy, inclusivity and equity, and environment. This scale has a reliability coefficient of 0.949 and consists of 20 items.

Data Analysis

This study uses Spearman's rho to assess the relationship between two research variables in SPSS V23. This analysis uses non-parametric statistics, which are used when data are not normally distributed or are ordinal.

RESEARCH RESULT

Table 1

Descriptive Analysis of Cyberbullying Data

Cyberbullying Variable				
Data Type	Minimum	Maximum	Mean	SD
Empirical Data	72	100	91.51	3.75
Hypothetical Data	30	120	75	15

Table 2

Descriptive Analysis of School Climate Data

School climate variable				
Data Type	Minimum	Maximum	Mean	SD
Empirical Data	48	77	62.71	5.47
Hypothetical Data	20	80	50	10

Descriptive analysis will present the mean, minimum, maximum, and standard deviation for each research variable (cyberbullying and school climate). The data utilised are both empirical and hypothetical. These data will be used to conduct a categorisation analysis to determine each subject's high and low scores for each variable; the scores will be classified as high, medium, or low.

Table 3

Categorisation of Cyberbullying Data

Score Range	Frequency	Percentage (%)	Interpretation
$X \geq 90$	73	81.11%	High
$60 \leq X < 90$	17	18.89%	Medium
$X < 60$	-	-	Low
Total	90	100%	

Based on the analysis of cyberbullying data categorisation, 81.11% of the students fell into the high category, while 18.89% fell into the moderate category. This indicates that, on average, the students in this study exhibited high levels of cyberbullying.

Table 4

Analysis of School Climate Data Categorization

Score Range	Frequency	Percentage (%)	Interpretation
$X \geq 90$	70	77.78%	High
$60 \leq X < 90$	20	22.22%	Medium
$X < 60$	-	-	Low
Total	90	100%	

Based on the categorisation analysis of the school climate data, 77.78% of the students fell into the high category, while 22.22% fell into the moderate category. This indicates that, on average, the students in this study experienced a high level of school climate.

Table 5

Normality Test

Variables	KS-Z score	Sig (p)	Interpretation
School climate	0.156	0.000	Non-Normal
Cyberbullying	0.155	0.000	Non-Normal

The normality test results for the cyberbullying variable yielded a KS-Z value of 0.156 with a p-value of 0.000 ($p < 0.05$). In contrast, the school climate variable showed a KS-Z value of 0.155 with a p-value of 0.000 ($p < 0.05$). This indicates that all research variables exhibited non-normal data distributions.

Table 6

Linearity Test

Variables	Deviation from Linearity	Sig (p)	Interpretation
Cyberbullying	0.406	0.992	Linear
School climate			

Based on the table above, the linearity test for the relationship between cyberbullying and school climate yielded a "deviation from linearity" value of 0.992 ($p > 0.05$). These results indicate a linear relationship between cyberbullying and school climate.

Table 7

Hypothesis Testing

Variables	Correlation Coefficient	Sig (p)	Interpretation
Cyberbullying	0.142	0.181	Not Significant
School climate			

Spearman's Rho analysis indicates a correlation coefficient of 0.142 between school climate and cyberbullying, with $p = 0.181$ ($p > 0.05$). This means there is no statistically significant relationship between school climate and cyberbullying.

DISCUSSION

Based on the Spearman's Rho analysis, it was found that there is no relationship between school climate and cyberbullying among high school students in Pringsewu Regency, Lampung. This result contradicts the study's hypothesis; therefore, the hypothesis was rejected. These findings align with Arató et al. (2022), which found no link between specific aspects of school climate teacher-student relationships and school satisfaction and cyberbullying. This lack of association suggests that cyberbullying may be linked to factors beyond school climate, such as online peer influence (Zhang & Qin, 2023). Online peer influence can shape cyberbullying, as interactions and social acceptance in digital environments can affect students' online communication and interaction behaviours (Polanin et al., 2022).

Individuals may experience a discrepancy between how they understand and apply social norms at school and the behaviours they exhibit in the digital realm (Bjärehed, 2022). Consequently, students may not internalise or apply positive values fostered by the school climate to online activities, leading to digital behaviours that differ from the norms learned at school (Kowalski et al., 2025). Eweida et al. (2021) identified several psychological factors associated with cyberbullying, including feelings of safety, emotional state, and resilience levels. Students with limited psychological resources tend to struggle with social pressures in the online environment, making them potentially more susceptible to engaging in cyberbullying behaviours (Yang et al., 2022). This indicates that cyberbullying is not solely linked to the

school environment or climate but can also be influenced by an individual's psychological characteristics.

Based on the categorization analysis, it was found that the majority of students fell into the high-level categories for both school climate and cyberbullying. Although both variables were characterized by high levels, the hypothesis test results revealed no relationship between school climate and cyberbullying. The discrepancy between the categorization results and the hypothesis test findings can be explained by the different nature of the two analyses (Zlokovich et al., 2023). Categorization analysis describes each variable's general level among respondents, whereas correlation analysis measures the extent to which changes in one variable's score are associated with changes in another's (Guetterman, 2019). Therefore, high school climate scores among most students do not automatically correlate with low cyberbullying scores. Similarly, high cyberbullying scores do not inherently indicate that the school climate perceived by students falls into a low category. Both variables can exhibit high score trends simultaneously without demonstrating a statistically significant relationship.

This study has several limitations that should be considered when interpreting the results. First, the analysis indicates no significant relationship between school climate and cyberbullying; thus, the proposed hypothesis is not supported by the data. This finding suggests that cyberbullying may be linked to various factors beyond school climate that were not examined in this study. Second, the study used self-report data collection, which introduces the potential for social desirability bias. Such bias can occur when respondents provide answers they believe align with social expectations rather than fully reflecting their actual conditions or behaviours. Third, the study included subjects with specific characteristics and a limited geographic scope namely, high school students in Pringsewu Regency, Lampung.

Consequently, researchers should generalise the findings with caution, as they may not apply to the broader adolescent population or students in other regions.

CONCLUSION

Based on the research findings and discussion, it can be concluded that school climate is not associated with cyberbullying among high school students in Pringsewu, Lampung. These findings indicate that school climate encompassing aspects such as social relationships, environmental comfort, and academic support does not serve as a primary predictor of student cyberbullying behaviour. Nevertheless, schools are expected to continue fostering a conducive learning atmosphere that optimally supports students' social development, even though this factor does not directly influence cyberbullying behaviour. Teachers and educators should also strengthen supervision and cultivate students' understanding of responsible social media use, raising awareness of cyberbullying's negative impacts on themselves and others.

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