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# LGBTQ Cyberbullying on Online Learning Platforms Among University Students

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## Abstract

*Cyberbullying is a type of cybercrime that has become a new phenomenon, rapidly increasing on the cyberspace, as it utilizes the Internet technology to harass people, especially among teenagers and youth on online learning platforms. This study aimed to analyze the factors influencing LGBTQ cyberbullying on online learning platforms among university students in Thailand. A quantitative research design was used to collect data from 400 university students in Thailand through questionnaires. The data were analyzed through a structural equation model. The results found that most Thai students had a low level of cyberbullying behavior, as they respected each other, especially LGBTQ students. Moreover, there were three major factors comprising demographics, the situation, and online learning platform behavior that had a significant direct effect on the outcome of LGBTQ cyberbullying victims. The demographic factors (gender, motivation, psychology, and technology using behavior) had a direct effect on the situation factors (perceived support, parental involvement, and university climate and environment), and a direct effect on online learning platform factors (teachers, classmates, dialog of online learning, group work, and relationship between classmates and the teacher). Moreover, the LGBTQ online learning platform factor had a direct effect on the outcome of cyberbullying (social equality, mindset, intellect, physical, and society). The relative Chi-square ( $\chi^2 / df$ ) of 1.194 indicated that the model was suitable. The comparative fit index (CFI) was 0.991, the goodness of fit index (GFI) was 0.971, and the model based on the research hypothesis was consistent*

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with the empirical data. The root mean square error of approximation (RMSEA) was 0.022.

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Keywords: Cyberbully, LGBTQ, Online learning platform, Thailand

## Introduction

The twenty-first century has seen the world emerge and change into a digital transformation era in which the driving force is information technology, thus resulting in an increase in Internet accessibility globally (Nalaka & Diunugala, 2020). As a consequence, the Internet has widely fulfilled the activities of every sector, including communication, education, entertainment, and the economy to create a global village that has no physical or social boundaries among people worldwide (Nalaka & Diunugala, 2020; P. Suanpang et al., 2022). Teenagers or youth have always appeared to be drawn to different platforms of Internet technology and used it on a regular basis. According to the study of the Pew Research Center, it was found that 92% of teens went online daily and 56% accessed online material several times a day (Abreu & Kenny, 2018; Lenhart, 2015). Simultaneously, the Internet has provided numerous benefits, such as, communication, connecting with others, accessing vast amounts of information, and learning via online courses. However, there are risks related to privacy, security, miscues, free access to adolescents, and readily available access to opening the door to a new form of 'cyberbullying' (other names include cyber victimization, online victimization, and online aggression) among youth (Abreu & Kenny, 2018; P. Suanpang et al., 2022).

One of the significant examples of destructive behavior is '*cyberbullying*', which is a transformation from the traditional bully form to an online one, through a social media platform (Abaido, 2020; Li, 2007). Cyberbullying involves the behavior of using information and communication technologies, including e-mail, mobile phone, text message, instant messaging, defamatory website, blog, online game, online platform, and hostile behavior by an individual or group with the intention of harming other people (Peled, 2019). Moreover, the most frequent and common media with cyberbullying occurs in e-mail, instant messaging, chat rooms, text messaging (SMS), social networking sites, websites, and online learning platforms, such as, WBSC, Zoom, Google Meet, etc. A cyber bully's characteristics are reminiscent of anonymity, have accessibility to electronic communication, and rapid spread to a wide audience (Peled, 2019). There are seven types of cyberbullying: flaming, online harassment, cyberstalking, denigration, masquerading, trickery, and outing, which involve angry, rude, and/or vulgar messages via text about a person to a person privately or an online group (Watts et al., 2017). Cyberbullying also results in apparent psychological problems, such as, depression, anxiety, loneliness, low self-esteem, social exclusion, school phobias, and poor academic performance (Juvonen & Gross, 2008; Kowalski & Limber, 2007; Peled, 2019; Varghese & Pistole, 2017). In addition, various studies found that the case of emotional and physiological damage from cyberbullying led to inappropriate behavior; such as, depression, low academic performance, drinking alcohol, etc. (Carol M. Walker & Steven, 2011; Faryadi, 2011).

Various research studies have shown that the exposure to cyberbullying can have dangerous consequences for youth and young adults' physical and mental health,

including academic problems, substance abuse, and suicide (Abreu & Kenny, 2018; Flanagan, 2014; Pham & Adesman, 2015). A current systematic literature review of 25 empirical studies revealed that a significant number of youth and adolescents (20% - 40%) reported being victims of cyberbullying (Aboujaoude et al., 2015; Abreu & Kenny, 2018). Therefore, cyberbullying among youth is a serious threat and collective efforts headed by schools, policymakers, and medical and mental health providers must be put in place in order to protect youth from the hazards associated with an ever-dependent digital world (Aboujaoude et al., 2015; Abreu & Kenny, 2018)

However, specific to sexual and gender minority youth, there are a few research studies on the experiences of the lesbian, gay, bisexual, transgender, and queer (LGBTQ) youth and cyberbullying. Consequently, the LGBTQ group has experienced problems from cyberbullies that have resulted from several dimensions; such as, political, regulation, and other, which has led to cases of suicide among this group and is a very significant problem (Hinduja & Patchin, 2020; Peled, 2019). From the study on the traditional bullying of LGBTQ students, it was found that youth were being bullied, harassed, and victimized in schools at disproportionate rates when compared to their heterosexual and cisgender counterparts. (Abreu & Kenny, 2018; Black et al., 2012; Espelage et al., 2015).

Many research studies have found that LGBTQ youth were cyberbullied, harassed, and victimized in university (Abreu & Kenny, 2018; Black et al., 2012; Espelage et al., 2015; Kosciw et al., 2012). Hence, the effect of cyberbullying of the LGBTQ group found that academic problems, depression, and low self-esteem led to suicidal ideation (Abreu & Kenny, 2018; Kosciw et al., 2012). Moreover, this situation was acknowledged with the incident of the LGBTQ bullying of an 18-year-old youth's suicide from cyberbullying at Rutgers University, USA. The victim posted the Facebook status as "jumping off the GW bridge sorry". This was a very serious case and harmed by peer aggression (Hinduja & Patchin, 2020). Another case occurred on September 22, 2019, when 16-year-old Channing Smith from rural Tennessee committed suicide after unambiguous messages he sent to another boy and were posted on Instagram and Snapchat (Chiu, 2019; Hinduja & Patchin, 2020).

The results of the study of LGBTQ cyber victims are significantly higher among the aggressors, and cyber aggressors, who suffer significantly higher depression, more social anxiety, and greater psychopathological symptoms (somatization, obsession-compulsion, and interpersonal sensitivity). There is also a significant role of the importance of intervention from the family, school, and society to reduce bullying/cyberbullying (Garaigordobil et al., 2020).

LGBTQ cyberbullying of students at university has become a significant issue, especially on online learning platforms during the COVID-19 pandemic worldwide. Thailand is a country that accepts sexual and gender diversity; in addition, a Thai government agency initiated a tourism campaign to increase the number of foreign LGBTQ tourists in Thailand (UNESCO, 2014). Nevertheless, many studies have produced evidence regarding bullying in Thailand. For example, Boonoon (2010) and Euajarusphan (2021) studied the bullying situation in Thailand when teenagers and youth were recurrently distressed, threatened, harassed, humiliated, embarrassed, or otherwise targeted by another teenager or youth using text messaging, e-mail, instant messaging, or other types of digital technology. A survey collected data from 2,500

students aged 12-24 years (Sittichai & Smith, 2013). The results found that 43% of students had been threatened over the Internet who declined to disclose the details but said they had been annoyed by cyberbullying and particularly by attempts to attract them into meetings.

There is a dearth of studies about LGBTQ cyberbullying among teenagers and youth at university because this was the majority of the cyber bully's victims, especially on online learning platforms. There are also very few studies about the factors that affect different types of social support, personal factor, situation factor, and university online learning platform factor together with the cyber bully's behavior. To bridge the gap, this study aimed to analyze the factors influencing the cyberbullying of LGBTQ students who participated in an online learning platform case study in Thailand.

## **Literature Review**

### • *LGBTQ Cyberbullying*

A cyberbully is a term with various perspectives that has transformed from the traditional form of a bully to an online one. Cyberbullies share three primary acts of aggression that occur among individuals with whom there is an imbalance of power, and this behavior is often repeated in several aspects from physical, social, relational, or psychological (Abreu & Kenny, 2018; Olweus, 2013; Smith et al., 2013). Moreover, Willard (2004) and Abreu and Kenny (2018) defined different forms of traditional bullying and cyberbullying as: (1) flaming - sending an annoying, rude message directly to another person, (2) harassment - repeatedly sending a person aggressive messages, (3) cyberstalking - threats of harm or posting harmful, cruel messages about another person, (4) outing and trickery - sending or posting embarrassing material about a person, (5) exclusion - deliberately excluding a person from an online group, (6) impersonation - posturing as the victim, and (7) sexting - delivering nude images of another person without their consent. Furthermore, cyberbullying occurs in different demographics; such as, age, gender, physical, cultural, racial, religious, and psychological harm (Abreu & Kenny, 2018).

In addition, a study of the literature found that influential cyberbullying prevention factors included the family, peers, and university support that minimized the risk of suffering from the negative mental health outcomes of cyberbullying (Abreu & Kenny, 2018; Swearer & Doll, 2001). Additionally, the university preventive factor appeared to serve as a defensive aspect for LGBTQ bully victims against depression, suicide, and drug use (Williams et al., 2005) (Abreu & Kenny, 2018; Espelage et al., 2015; Goodenow et al., 2006). Hence, the current study explored the perceived social support (family, peers, and university) that provided safeguards against depressive symptoms resulting from cyberbullying for university students of sexual minority groups (Abreu & Kenny, 2018). It was found that victimization in the college population of LGBTQ cyberbullying had been less widely studied; there were also a few studies of the cyberbully influencing factors resulting from the cyber bully's behavior. The current study would fill this literature gap.

### • *Youth LGBTQ Cyberbullying in Thailand*

There has been rather limited research on bullying and cyberbullying in South-east

Asian countries, including Thailand. However, a study titled “Bullying and Cyberbullying in Thailand: Coping strategies and the relationship to age, gender, religion, and victims’ status” did a survey of 1,049 students (42% boys; 58% girls) aged 12 -18 years in 12 schools from three provinces in Southern Thailand. These students had suffered experiences of being victims of traditional bullying and cyberbullying; nevertheless, this was less so for cyber victimization. There were also many gender differences, such as, girls recommended telling and reporting more, ignoring it more, or blocking messages, while boys recommended fighting back. There were few differences for religion, and finally, the victims were more likely to recommend passive strategies; such as, avoiding the victims, or risky ones like fighting back (Sittichai & Smith, 2013).

Concurrently, literature on LGBTQ in Thailand is also less extensive than some Western contexts. The sexual and gender diversity is also less perceived by foreigners and the native population in Thailand. A Thai government agency initiated a campaign aimed at increasing the number of foreign LGBTQ tourists in Thailand by proposing that Thai society is “tolerant but unaccepting” and concluded the perception of Thailand as a “gay heaven” (UNESCO, 2014). A report from Mahidol University (Mahidol University et al., 2014) found that the experiences of LGBTQ students; overall, 55% of self-identified LGBTQ students reported being bullied within the previous month because they were LGBTQ with physical, verbal, social, and sexual abuse all being common. In summary, from the search of the literature, it was found that there was a lack of studies about the LGBTQ cyberbullying behavior of students at university, especially on online learning platforms, which would become a bridge to the research gap of this study.

### Theoretical Framework

From the literature review, it was found that the body of knowledge was used to synthesize and find the relationship of the variables to lead to the determination of the theoretical framework of this study (Figure 1). This figure illustrates the framework to study the factors influencing the cyberbullying of LGBTQ students on online learning platforms, which included the following:

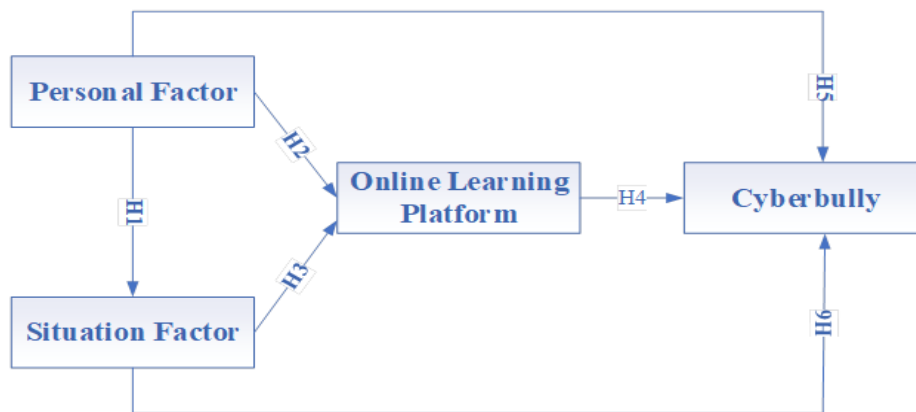


Figure 1: Theoretical framework to study the factors influencing the cyberbullying of LGBTQ students on online learning platforms.

- (1) *Demographic and personal psychological factors* (Personal), which consisted of four variables: gender, motivation, psychological and technology using behavior (gen, mot, psy, and tec).
- (2) *Situation and environmental factors* (Situation), which consisted of three variables: perceived support, parental involvement, and university climate and environment (per, par, and uni).
- (3) *Online learning platform factor* (Learning), which consisted of five variables: teachers, classmates, dialog of online learning, group work, and relationship between the classmates and teachers (tea, cla, dia, gro, and rel).
- (4) Cyberbullying effect (Cyberbully), which consisted of five variables: social equality, mindset, intellect, physical, society (equ, mid, intel, phy, and soc).

### *1. Demographic and personal psychological factors*

The causes of cyberbullying could come from a variety of factors, and one of these influences was behavior that was affected by “*personal factors*”. This included gender, motivation, psychological, and online platform behavior (P. Suanpang et al., 2022). The literature illustrated that gender and LGBTQ cyberbullying of sexual minority male and female teenagers and youth had significantly higher levels of cyberbullying than their heterosexual counterparts (Abreu & Kenny, 2018; Kessel Schneider et al., 2015; Wensley & Campbell, 2012). In addition, Cooper and Blumenfeld (2012) found that 19% of LGBTQ participants reported being harassed for their biological sex, and 41% for their gender identity or expression. These findings seem to concur with Rice et al. (2015), who found that sexual minority females reported greater frequency of cyberbullying than males. Kessel Schneider et al. (2015) also reported that sexual alternative males were more likely to report cyberbullying than both their heterosexual counterparts and sexual minority females. Thus, the hypothesis was as follows:

*H1: The demographics of the students significantly affects the situation of LGBTQ cyberbullying.*

Other important variables of the personal factor that influenced LGBTQ cyberbullying were motivation and psychological. Abreu and Kenny (2018) studied the psychological variable associated with cyberbullying that was possibly correlated with the sexuality and gender of teenagers and youth. There were several psychological and emotional aspects that resulted from cyberbullying, such as, suicidal ideation and attempt, depression, and low self-esteem. In particular, regarding the problem of suicide, it was reported that 35% of LGBTQ cyberbully victims had suicidal thoughts, while 14% reportedly attempted suicide as a result of being cyberbullied (Cooper & Blumenfeld, 2012). Moreover, the suicide struggle was the highest among the LGBTQ group who had been cyberbullied versus those who had experienced face-to-face bullying (9.4% and 4.2%, respectively) (Kessel Schneider et al., 2015). The hypothesis was as follows:

*H2: The personal factor (motivation and psychological) of the students has significance for the online learning platform behavior.*

### *2. Situation and environmental factors*



The situation factors that comprised LGTBQ cyberbullying consisted of perceived support, parental involvement, and university climate and environment to support the online learning platform (P. Suanpang et al., 2022). LGTBQ students need to have a supportive and safe university climate and environment for the sexual minority and gender expansion to be essential (Abreu & Kenny, 2018). Likewise, Kessel Schneider et al. (2015) recommended that the university should be supportive and have a safe environment for the sexual minority and gender expansion to be essential, which had extended from traditional bullying. Moreover, the research suggested that the university must create and enforce a university climate and policies to prevent students from teasing, threatening, excluding, or mistreating other students based on their sexual or gender identity and/or expression, including cyberbullying (Abreu & Kenny, 2018; Blumenfeld & Cooper, 2010; Hinduja & Patchin, 2020). Additionally, Blumenfeld and Cooper (2010) recommended that the university create online methods for students to be an anonymous witness for someone who was cyberbullied. The hypothesis was as follows:

*H3: The situation factor of the students has significance for the online learning platform.*

### *3. Online learning platform factors*

LGTBQ cyberbullying always happens on online, especially in a university learning platform, which has several affective factors, including the teacher, classmates, online dialog group work, and relationship with their classmates (P. Suanpang et al., 2022). The literature illustrated that the online learning platform factor; such as, teacher, classmates, community, and online learning activities decreased cyber-victimization among students (Abreu & Kenny, 2018; Flanagan, 2014). For instance, counselors could help online students, teachers, and parents understand the legal concerns for appealing in cyberbullying and different ways to access already established legal support for victims of cyberbullying (Flanagan, 2014). Moreover, earlier studies indicated that the number of cyberbullies and cyber victims was positively correlated with the increasing of using an online platform (Balakrishnan, 2015; Ghadampour, 2017). The cyber victims reported higher online activities; such as, chatting, direct message, e-mailing, blogging, and posting information on a social network; such as, Facebook, Instagram and YouTube that had a linkage from an online learning platform, thus increasing cyberbullying, stalking, etc. (Balakrishnan, 2015). The hypothesis was as follows:

*H4: Online learning platform activities significantly influence the outcomes of cyberbullying.*

### *4. Outcome of cyberbullying*

The significant result of the cyber bully's behavior was correlated among the LGTBQ group that needed to be studied and test the hypotheses, especially the motivation and physical factors that influenced the results of cyberbullying, such as, suicide, depression, aggression, low self-esteem, etc. From the literature review, it was found that online learning and the cyber bully's behavior were correlated among the LGTBQ students, while there was a lack of evidence to support cyberbullying alone. This led to sexual factors to engage in more physical fights, as being a victim of cyberbullying and traditional bullying exacerbated physical fights among the

students (Abreu & Kenny, 2018; Duong & Bradshaw, 2014). Consequently, the personal factor (included gender, motivation, psychological, and online platform behavior) influenced the situation of the LGBTQ group. The hypothesis was as follows:

*H5: The personal factor of the students has significance for the outcome of cyberbullying of the LGBTQ group.*

#### 5. Parental involvement with teenagers and youth,

Finally, an important situation factor that affected LGBTQ cyberbullying was parental involvement with teenagers and youth, which the parents needed to be aware of the risk associated with the use of technology for the case of cyberbullying (Abreu & Kenny, 2018; Ramsey et al., 2016). In addition, the parents needed to provide education about how to report the student's cyberbullying behavior, which directly affected the case of victimization. Moreover, it was important to realize that regarding the parents and family involvement in specific LGBTQ cyberbullying, there were significant concerns that had to be considered. This led to develop the hypothesis that the situation factor (perceived support, parental involvement, and university climate and environment) influenced the online learning platform and outcome of cyberbullying. The hypothesis was as follows:

*H6: The situation factor of the students in online learning has significance for the outcome of cyberbullying.*

### Research Methodology

#### • Research design

A quantitative research design was used to conduct this research. The research practices involved the analyses of the factors influencing the cyberbullying of LGBTQ students, who participated in the online learning platform case study in Thailand.

#### • Population and sample

The population comprised undergraduate students in Thailand. A non-probability sampling technique like convenience sampling was used to identify the sample. The sample size was 400 which was based on Cochran (1977) with a confidence level of 95% ( $\alpha = 0.05$ ). The study about the demographics found that most of the respondents were female (72.25%), were studying in the fourth year (26.50%), spent more than four hours/day on social media (74.25%), most of them used Instagram (33.25%), followed Facebook and YouTube (29.55 % and 28.72%, respectively). Regarding the cyberbullying behavior, it was found that most of them had never experienced cyberbullying (57.75%), followed by not sure (66.50%), and accepted that cyberbullying was a problem that affected people (25.00%) and that cyberbullying was a common occurrence online (8.50%). Regarding the situation factor, it was found that the overall averages of the importance of attention was at a high level ( $\bar{x} = 3.41$ ; SD. = 1.11), the online learning platform found that the overall averages of behavior was at a low level ( $\bar{x} = 2.19$ ; SD. = 1.10), and the average behavior of the outcome of cyberbullying was at a low level ( $\bar{x} = 2.23$ ; SD. = 1.14).

#### • Data collection and analysis

The data were collected from online questionnaires and analyzed based on the structural equation model (SEM) to determine the parameters from analyzing the validity and reliability. According to Golob (2003), in SEM analysis with the maximum



likelihood estimation (MLE) method, the sample size should be at least 15 times of the observed variables. Since this research contained 17 observed variables, the appropriate and sufficient sample size for the analysis was ideally adopted to be 170.

## Results

This section presents the results of the analysis of the factors influencing the cyberbullying of LGBTQ students participating in an online learning platform case study in Thailand. The causal relationship models of cyberbullying and online learning among university students consisted of four latent variables and 17 observable variables. The correlation coefficient was in the range of [0.001-0.469], which showed the correlation of the variables (Table 1).

Table 1. Correlation matrix.

Variables	Gen	Per	Psy	Tec	Per	Par	Uni	Tea	Cl	Dai	Gro	Rel	Ide	Dif	Pro	Kno
Gen	1															
Mot	.126*	1														
Psy	.050	.103*	1													
Tec	.203**	.212**	.023	1												
Per	.113*	.032	.111*	.078	1											
Par	.141**	.027	.021	.049	.369**	1										
Uni	.127*	.136**	.226**	.230**	.129**	.132**	1									
Tea	.065	.067	.175**	.177**	.085	.170**	.013	1								
Cl	.214**	.027	.135**	.084	.068	.047	.153**	.400**	1							
Dai	.266**	.057	.071	.150**	-.021	.093	.165**	.370**	.347**	1						
Gro	.079	.095	.084	.012	.068	.134**	-.058	.303**	.284**	.311**	1					
Rel	.042	.046	.081	.054	.073	.117*	.078	.154**	.130**	.112*	.427**	1				
Ide	.207**	.158**	.030	.180**	.017	.203**	.236**	.119*	.054	.154**	.007	.204**	1			
Dif	.183**	.068	.024	.230**	.011	.090	.247**	.424**	.319**	.380**	.136**	-.047	.407**	1		
Pro	.243**	.107*	.116*	.158**	.016	.005	.107*	.308**	.402**	.398**	.227**	.196**	.394**	.304**	1	
Kno	.208**	.081	.223**	.019	.156**	.085	.096	.305**	.442**	.469**	.214**	.057	.304**	.398**	.318**	1
Con	.001	.035	.105*	.050	.036	.071	.099*	.135**	.302**	.349**	.085	.009	.269**	.341**	.337**	.428**

\* The correlation was significant at the level of 0.05. \*\* The correlation was significant at the level of 0.01.

Figure 2 and Table 2 present the results of the analysis of the causal relationship model of LGBTQ cyberbullying and the online learning platform among university students. It reveals that the personal factor had a positive direct influence on the online learning platform and situation, with an influence size of 0.572 and 0.386, respectively. The personal factor had an indirect positive influence on the learning platform via the situation variables with an influence size of 0.174. In addition, the personal factor had an indirect positive influence on cyberbullying via the learning platform variable with an influence size of 0.421.

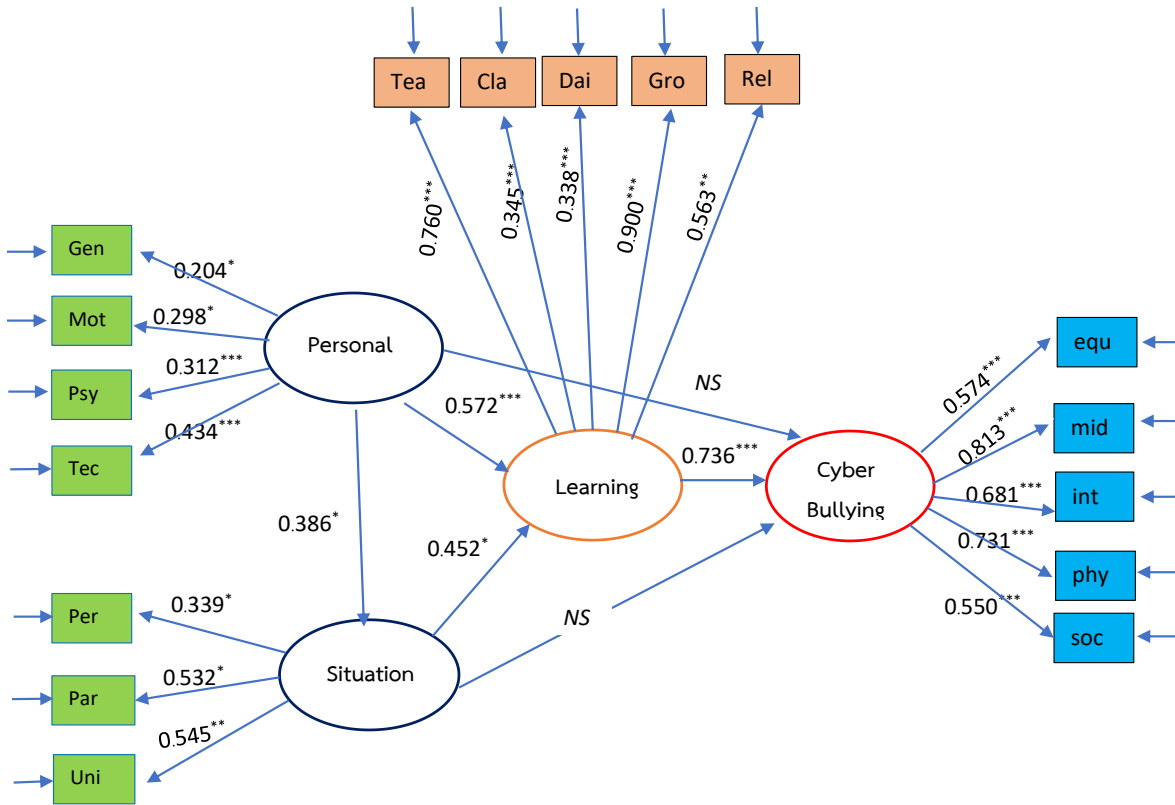


Figure 2. The causal relationship model analysis of the factors that influenced LGBTQ cyberbullying on the online learning platform.

The situation factor had a positive direct influence on learning with an influence size of 0.452, and the situation factor had a positive indirect influence on cyberbullying via a learning variable with an influence size of 0.333. Learning had a positive direct influence on cyberbullying with an influence size of 0.333. 0.736 (Table 2).

Table 2. Latent variables of the total effects (TE), direct effects (DE), and indirect effects (IE).

Latent Variable	Personal			Situation			Learning		
	TE	DE	IE	TE	DE	IE	TE	DE	IE
Situation	0.386*	0.386*	-	-	-	-	-	-	-
Learning	0.746***	0.572***	0.174***	0.452*	0.452*	-	-	-	-
Cyberbullying	0.549***	-	0.549***	0.333*	-	0.333*	0.736***	0.736***	-

\*p-value<.05, \*\*p-value<.001 )Total Effects :TE) (Direct Effects :DE) (Indirect Effects:I E)

When considering each aspect, it was found that the personal factor in terms of weighting the highest components were technology, followed by psychological and motivation, respectively. All three aspects accounted for 78.20%, 33.80%, and 31.60% of the personal variability, respectively. For the situation factor, the aspect with the highest weighting of the component was parental involvement, followed by

university climate and environment, online learning support, and perceived support, respectively. All three aspects could explain the situation variation at 74.60%, 50.50%, and 38.60%, respectively. Learning with the highest component weighting was group work, followed by the teacher, and relationship, respectively. All three aspects could describe the situation variation at 58.10%, 34.60%, and 32.10%, respectively. The outcome of cyberbullying with the highest component weighting was the mindset, followed by physical and intellectual capability, respectively. All three aspects could describe the variation of the outcome of cyberbullying at 55.10%, 47.50%, and 39.80%, respectively. The personal factor described 12.50% of the situation variability, the personal and situation factors described 32.40 % of the variability in learning, and 54.10% of the variability in cyberbullying (Table 3).

Table 3. Harmonization of the research model with the empirical data (Model Fit).

Variable	<i>b</i>	<i>SE</i>	<i>t</i>	<i>R</i> <sup>2</sup>
Gen	0.204	-	-	0.2130
Mot	0.298	0.030	2.521*	0.3160
Psy	0.312	0.237	4.281***	0.3380
Tec	0.434	0.225	5.486***	0.7820
Per	0.339	-	-	0.3860
Par	0.745	0.437	2.031*	0.7460
Uni	0.523	0.160	2.927**	0.5050
Tea	0.760	-	-	0.3460
Cl	0.345	0.072	15.659***	0.2680
Dai	0.338	0.064	15.881***	0.2820
Gro	0.900	0.073	6.549***	0.5810
Rel	0.563	0.071	2.632**	0.3210
Ide	0.574	-	-	0.3010
Dif	0.813	0.073	8.690***	0.5510
Pro	0.681	0.088	8.721***	0.3980
Kno	0.731	0.103	8.980***	0.4750
Con	0.550	0.096	7.995***	0.3260

$$\chi^2 = 100.260, df = 84, p\text{-value} = 0.109, GFI = 0.971, AGFI = 0.957$$

$$CFI = 0.991, NFI = 0.959, RMR = 0.025, RMSEA = 0.022$$

\**p*-value < .05. \*\**p*-value < .01. \*\*\**p*-value < .001.

The validation results of the model conformity index indicated that /df.=1.194 (less than 2) *p*-value = 0.109, the goodness of fit index (GFI) = 0.971, adjusted goodness of fit index (AGFI) = 0.957, comparative fit index (CFI) = 0.991, formed fit index (NFI) = 0.959 (more than 0.95), root mean square residual (RMR) = 0.025, and the root mean square error approximation (RMSEA) = 0.022 (less than 0.05). Therefore, all indices were appropriate (Schumacker & Lomax, 2012) (Table 4).

Table 4. Examination of the model conformity index

Statistics	Criteria	Value	
$\chi^2 /df$	>2.00	1.194	Pass
<i>p-value</i>	<. 05	0.109	Pass
<i>GFI</i>	<. 95	0.971	Pass
<i>AGFI</i>	<. 95	0.957	Pass
<i>CFI</i>	<. 95	0.991	Pass
<i>NFI</i>	<. 95	0.959	Pass
<i>RMR</i>	>. 05	0.025	Pass
<i>RMSEA</i>	>. 05	0.022	Pass

Table 5. Hypothesis testing.

Hypothesis	<i>b</i>	Significant
H1	0.386*	0.05
H2	0.572***	0.001
H3	0.452 ***	0.05
H4	0.736***	0.001
H5	0.000	No Sig
H6	0.000	No Sig

\*Significant at the level of 0.05 level. \*\*\*Significant at the level of 0.001.

Table 5 presents the results of the hypotheses testing. H1: The demographics of the students significantly affects the situation of LGBTQ cyberbullying was at a significant level at 0.05. H2: The personal factor (motivation and psychology) of the students has significance for the online learning platform behavior was at a significant level at 0.001. H3: The situation factor of the students has significance for the online learning platform was at a significant level at 0.05. H4: Online learning platform activities significantly influence the outcomes of cyberbullying was at a significant level at 0.001. H5: There was no significant difference of the personal factors of the students and outcome of LGBTQ cyberbullying. H6 There was no significant difference of the situation factor of the students in online learning and outcome of cyberbullying.

## Discussion and Conclusion

In the disruptive digital world where everything is uploaded online in cyberspace, technology has become a significant tool for communication all around the world (P Suanpang & Jamjuntr, 2021; P. Suanpang et al., 2022; Pannee Suanpang et al., 2021). Simultaneously, where the amount of Internet usage for online learning is emerging, especially during the COVID-19 pandemic, this has changed the educational system for teaching and learning to be an online platform (P Suanpang & Jamjuntr, 2021; P Suanpang et al., 2021), thus resulting in cases of the cyberbully phenomenon. Furthermore, cyberbullying has increased, especially among LGBTQ teenagers and youth leading to several problems; such as, lower academic performance, depression, aggression, low self-esteem, thus resulting in suicide that affects the physical and mental states of youth at university (Juvonen & Gross, 2008; Kowalski & Limber, 2007; Peled, 2019; P. Suanpang et al., 2022; Varghese & Pistole, 2017). This study contributed to the factors affecting the influence of cyberbullying of LGBTQ students

participating in an online learning platform case study in Thailand. The results found that regarding the cyber bully's behavior, most of the respondents had never experienced cyberbullying (57.75%), followed by not sure (66.50%), saw that cyberbullying was a problem that affected people (25.00%), and cyberbullying was a common occurrence online (8.50%), respectively. This significantly proves that most Thai students had good online behavior and respected one another, especially the LGBTQ group.

A great contribution of this study is the finding that Thai students had a low level of cyberbullying because of several factors. According to the results of the study, it was found that there were four factors affecting the cyberbullying of LGBTQ students, including demographics, situation, online learning platform, and outcome of cyberbullying. The demographic factor comprising gender, motivation, psychology, and technology using behavior had a direct effect on the situation factor, which included perceived support, parental involvement, and university climate and environment, and especially the personal psychology factors that were significant to the cyberbullying situation of the LGBTQ group. Moreover, the situation factor affected the LGBTQ online learning platform factor, which consisted of the teacher, classmates, dialog of online learning, group work, and relationship between a classmate and teacher, which concurred with Cooper and Blumenfeld (2012) that the university learning environment influenced the LGBTQ online learning platform.

Cooper and Blumenfeld (2012) and Abreu and Kenny (2018) suggested that the university should set a policy and regulations to prevent and protect the LGBTQ group from cyberbullying in an online learning platform. Additionally, cyberbullying behavior in the LGBTQ online learning platform had a significant direct effect on both the physical and mental health of students, such as, low self-esteem, depression, aggression, social equality, low academic performance, and the highest negative impact was suicide. To prevent the problem of LGBTQ cyberbullying, every stakeholder, including the parents, university, and communities should cooperate to support and prevent this circumstance from occurring in the digital era in this disruptive world. Moreover, society and the cyber influencers should create a new social paradigm to stop the cyberbullying behavior, prevent LGBTQ cyberbullying, and support the social equity for every person. Finally, a great limitation of this study was that it was confined to the cyberbullying of the youth in higher education. Future studies should focus on this issue with the transgender, non-binary, gender non-conforming, intersex, or queer youth groups.

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