

Communicator Style as a Predictor of Cyberbullying in a Hybrid Learning Environment*

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Abstract

This study aimed to describe the characteristics of undergraduate students in a hybrid learning environment with regard to their communicator styles and cyberbullying behaviors. Moreover, relationships between cyberbullying victimization and learners' perceived communicator styles were investigated. Cyberbullying victimization was measured through a recently developed 28-item scale with a single-factor structure, whereas the communicator styles were measured through Norton's (1983) scale which was recently validated in Turkey. Participants were a total of 59 undergraduate Turkish students enrolled in an effective communication course in 2010 spring and fall semesters. Face-to-face instruction was supported through web 2.0 tools where learners' hid their real identities through nicknames. Participants used personal blogs in addition to the official online platform of the course. Their posts on these platforms were used as the source of the qualitative data. Descriptive analyses were followed by the investigation of qualitative and quantitative interrelationships between the cyberbullying variable and the components of the communicator style measure. Correlations among victimization and communicator style variables were not significant. However, qualitative analysis revealed that cyberbullying instances varied with regard to discussion topics, nature of the discussions and communicator styles. Example patterns from the log files were presented accompanied with suggestions for further implementations.

Keywords: *Cyberbullying; communicator styles; blended learning; higher education.*

Introduction

Current information and communication technologies provide users with new, fruitful and comfortable platforms for social interactions. On the other hand, they may also serve as new and authentic tools for individuals to bully one another. Traditional bullying consists of intentional and aggressive behaviors with an imbalance of strength and power (Kowalski, Limber, & Agatston, 2008). Since emerging technologies have transformed the way people bully one another, it is necessary to adapt traditional bullying terminology to the digital life. In the borderless digital world, perpetrators can use many tools to bully others such as e-mail, instant messaging, chat rooms, cell phones/PDAs, voting booths, and other online social networking utilities. This new form of bullying is called electronic/online bullying, online/cyber-harassment, technobullying or cyberbullying; and involves deliberate use of information and communication technologies through which harm or emotional

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disturbance is intentionally and repeatedly delivered, and a specific individual or group of individuals are targeted (Ang & Goh, 2010; Patchin & Hinduja, 2006).

Through a survey on traditional bullying literature, Lee (2004) maintains that six concepts are common in most definitions of bullying which are intent, hurt, repetition, duration, power conflict and provocation. Even though some scholars regard cyberbullying as an extension of traditional peer bullying in schools, cyberbullying has some unique but worrying characteristics (Çetin, Yaman, & Peker, 2011). In traditional bullying, victims and bullies know each other whereas in cyberbullying perpetrators can shield themselves through nicknames (Shariff, 2008). This makes bullies more powerful than the victims (McGrath, 2007). Furthermore, the anonymity can make cyberbullying even more common than the traditional bullying (Arıcak, 2009). Since the impact of bullying actions on the victims is not directly observed by perpetrators, the lack of empathy is higher in cyberbullying than the traditional bullying (Froese-Germain, 2008). Last but not the least, online communication tools make cyberbullying possible anywhere and anytime whereas traditional bullying is usually restricted to the school day (Çetin et al., 2011).

Types of cyberbullying have been described in several resources. The current study follows Willard's (2005) classification since her operational definitions are easy to interpret. She defines cyberbullying as "sending or posting harmful or cruel text or images using the Internet or other digital communication devices (p.2)" and lists the ways in which cyberbullying occurs as follows: *Flaming* is sending angry, rude or vulgar messages. *Harassment* means repeatedly sending offensive messages. *Cyberstalking* refers to harassment that is highly intimidating or carries threats of harm. *Denigration* or put-downs involves sharing harmful, untrue or cruel statement about specific individual(s). *Masquerade* is pretending to be someone else and sharing material that makes that person look bad. *Outing* refers to sharing images, materials and messages about a person that contains sensitive and embarrassing information. *Trickery* means engaging in tricks to obtain embarrassing information to make it public. Finally, *exclusion* refers to actions that intentionally exclude a person from an online group.

There is mounting evidence to suggest that cyberbullying results in serious emotional harm and disorganizes all aspects of the victims' lives (Feinberg & Robey, 2008). Significant relationships between cyberbullying and emotional troubles have been found (Beran & Li, 2005; Hoff & Mitchell, 2009; Juvonen & Gross, 2008; Ybarra, Mitchell, Wolak, & Finkelhor, 2006). In addition, a significant relationship between perceived psychological vulnerability and achievement has been reported (Nishina, Juvonen, & Witkow, 2005). Thus, cyberbullying can interfere with the social and academic development of learners as well. Worse still, recent cyberbullying studies imply that it is becoming widespread (Slonje & Smith, 2008; Wade & Beran, 2011). Studies in the Turkish context retain international findings with regard to the fact that the incidence of cyberbullying is rising (Akbulut, Sahin & Eristi, 2010b; Akbulut & Çuhadar, 2011; Arıcak et al., 2008; Erdur-Baker, 2010; Erdur-Baker & Tanrıku, 2009). Furthermore, as long as the access opportunities to emerging communication technologies get better, it is plausible to expect that reported rates of cyberbullying may further increase (Raskauskas & Stoltz, 2007).

Scholars have yet to systematically investigate the variables, which constitute or predict cyberbullying. Investigations regarding users' cyberbullying and victimization experiences imply that such variables may vary in accordance with the study context (Akbulut et al., 2010b; Li, 2008; Ryan, Kariuki, & Yilmaz, 2011). Some of the background variables that have been found significant in the Turkish context are gender (Akbulut & Eristi, 2011; Arıcak et al., 2008; Erdur-Baker & Kavşut, 2007; Akbulut et al., 2010b); anonymity (Arıcak, 2009), school type (Topçu, Erdur-Baker, & Çapa-Aydın, 2008), marital and socioeconomic status (Akbulut et al., 2010b); frequency, duration and the nature of

Internet use (Akbulut et al., 2010b; Erdur-Baker & Kavşut, 2007), language proficiency (Akbulut et al., 2010b), previous victimization (Akbulut & Eristi, 2011), interpersonal cognitive distortions (Çetin, Peker, Eroğlu, & Çitemel, 2011) and several psychiatric symptoms (Arıcak, 2009). To our knowledge, no one has ever researched directly the relationship among communicator styles, cyberbullying and victimization incidences particularly in an online learning setting.

Communicator styles refer to the way individuals communicate. More specifically, they are “the signals that are provided to help process, interpret, filter or understand literal meaning” (Norton, 1983, p.47). Communicator style sub-constructs are listed by Norton (1978, 1983) as (1) dominant, (2) dramatic, (3) contentious, (4) animated, (5) impression leaving, (6) relaxed, (7) attentive, (8) open, (9) friendly, (10) precise and (11) communicator image. These styles may be summarized as follows (Norton 1978, 1983):

- “Dominant” takes charge of social interactions
- “Dramatic” manipulates stylistic devices to understate content
- “Contentious” is argumentative
- “Animated” uses physical and nonverbal cues
- “Impression leaving” manifest a visible or memorable style
- “Relaxed” has low level of anxiety and tension
- “Attentive” has empathy and is a good listener
- “Open” is conversational, frank and approachable
- “Friendly” shows intimacy
- “Precise” is exact, clear and meticulous

Above styles are used as independent variables while describing the communicator style construct whereas the communicator image is the dependent variable. The communicator image can be regarded as an overall evaluation of the individuals’ perception of whether they are good communicators. Each sub-construct is a reflection of some personal characteristics. For example, an individual communicating in a dominant way is likely to be self-confident, enthusiastic, active and competitive. On the other hand, an attentive communicator style is expected to relate inversely to the dominant style (Norton, 1983). In this regard, a commonsense hypothesis with regard to these characteristics may suggest a high relationship between cyberbullying and the dominant communicator style or a low relationship between cyberbullying and the attentive style.

The process of interpersonal communication is influenced by the characteristics of the interlocutors (Devito, 2008; Gamble & Gamble, 2005). Thus, individuals’ communicator styles are significant in determining the nature and quality of the learning processes in online learning communities. For instance, Cho, Gay, Davidson and Ingraffea (2007) reviewed the relevant literature and maintained that learners with different communication styles may progress differently in an online network. Their findings based on social network analysis and longitudinal survey data revealed that communication styles significantly affected the way learners realized collaborative learning in social networks. Similar to the communicator styles, as reviewed above, cyberbullying victimization instances are likely to predict individuals’ psychological and social well-being, both of which are significant learner variables that have been studied in recent research (e.g., Kurtz, Amichai-Hamburger, & Kantor, 2009). Furthermore, the need to study psychological factors, processes and mechanisms underlying online learning has been justified, since such instructional practices can move from technology-centered implementations to human-centered processes (Yan, Hao, Hobbs, & Wen, 2003).

The current study investigated the communicator styles and cyberbullying experiences of learners in a hybrid context. There have been large-scale studies examining cyberbullying victimization instances

among online social utility members (e.g., Akbulut et al., 2010b, 2010c); however, cyberbullying among online learning community members has been rarely investigated (e.g., Akbulut et al., 2010a; Dursun & Akbulut, 2010). This might stem from the fact that learner posts were not anonymous in several studies, a binding feature that may have diminished the degree and instances of cyberbullying. Similar to the availability of meager research on e-learning and cyberbullying, few studies have been conducted on communicator styles in such learning environments (Dursun, 2011). Therefore, the current study aimed to contribute to the contemporary literature through investigating the relationship between communicator styles and cyberbullying instances among e-learners, who could shield their identities through nicknames during online discussions.

Methods and Procedures

Context of the Study

The study was conducted at a Turkish state university during 2010 fall and spring semesters. Two successive implementations lasted four months each. Participants were 59 undergraduate students enrolled in an elective effective communication course (Table 1). Theoretical part of the course was realized in classroom whereas discussions were followed both face-to-face and online. Since a mixture of classroom and online instruction was followed, the term hybrid learning environment was considered plausible for the current study.

Table 1. Distribution of Participants by Gender and Semester

Semester	2010 Spring		2010 Fall		Overall	
	f	%	F	%	f	%
Female	13	41.9	13	46.4	26	44.1
Male	18	58.1	15	53.6	33	55.9
Total	31	100.0	28	100.0	59	100.0

A domain name, sufficient web space and relevant online facilities were arranged; and WordPress 3.01 was used to facilitate the activities. In addition to the discussion forum of the course, students were asked to prepare their own blogs to meet the requirements of the course. Students used nicknames while discussing in the online platform. Throughout the semester, they tried to learn the nicknames of very provocative users; however, the instructor kept this information secret. The instructor had a nickname and participated in the discussions as an equal member of the learning environment as well. These discussions were used as a means to provide students with opportunities to apply their effective communication skills. Ten main discussion topics were determined by the participants each semester; however, the course instructor and participants were free to add secondary topics to the agenda.

Data Collection and Analysis

In order to address cyberbullying victimization, a recent one-factor scale with 28 Likert items developed by Akbulut et al. (2010c) was implemented in the classroom. The scale adopted the classification by Willard (2005), and addressed instances of flaming, harassment, cyberstalking, denigration, masquerade, outing and trickery, and exclusion. The frequency of instances was recorded through a 5-point Likert where never, rarely, sometimes, very often and always referred to 1, 2, 3, 4 and 5 respectively. The scale was piloted twice, exploratory and confirmatory factor analyses were conducted with large-enough samples, high internal consistency coefficients were found (i.e. 0.96 and 0.97), and plausible amount of the total variance were explained with a single-factor structure (i.e. 48

and 50 %). In the current implementation, since the number of participants was relatively low, alpha values was lower but still good. The internal consistency coefficient in the spring group was 0.89, that of the fall group was 0.87, and the overall alpha was 0.88.

To investigate participants' communicator styles, communicator style measures developed by Norton (1978, 1983) were considered. Each measure was adapted to Turkish and piloted with representative samples by Dursun and Aydin (2011). It was revealed that the recent version of the scale had higher fit indices with fewer modifications. So, Norton (1983) was preferred in the current study. While the adaptation study had an internal consistency coefficient of 0.89, the current implementation had alpha values of 0.90 (spring), 0.94 (fall) and 0.92 (overall).

In parallel with the communicator style measure, a checklist prepared by Dursun (2011) was used to identify online communication styles of learners who could hide their identities through nicknames. This was particularly done to see whether impersonation was a significant predictor of behavior change in the online environment. More specifically, the purpose was to see whether students' real communicator styles dramatically changed in a different direction while they joined the online discussions. The checklist included 55 online behaviors addressing 11 communicator styles. Dursun (2011) describes the precautions to sustain the validity of the checklist. For instance, randomly selected online behaviors were reviewed by two independent experts through the checklist, which revealed an interrater agreement of 92 %.

The bullying form of the cyberbullying victimization scale developed by Akbulut et al. (2010c) was prepared and validated with teacher trainees in a study by Akbulut and Erişti (2011). At the time of data collection for the current study, the instrument was not available yet. However, qualitative data consisting of learner posts in the online platform helped researchers to investigate cyberbullying instances. The first semester of the implementation ended with 98 topics followed by 1255 comments (i.e. 12.81 comments per topic), whereas the second semester ended with 95 topics followed by 1821 comments (i.e. 19.17 comments per topic). The data were checked for cyberbullying instances. Inclusion/exclusion and feature coding criteria for potential instances were based on the classification of Willard (2005), and over 85 percent agreement was obtained between the two researchers.

While analyzing the quantitative data, descriptive statistics were followed by relevant parametric tests. For instance, correlation coefficients between cyberbullying victimization and communicator style variables were provided. On the other hand, qualitative data were analyzed through descriptive analysis, and findings were exemplified through direct quotations from the participants.

Findings and Discussion

Twenty eight items in the victimization measure were investigated and the instances were ordered from the most frequent to the least. Descriptive statistics regarding each item are provided in the Appendix. The data in the Appendix should be examined with caution. When the percentages were calculated considering the number of participants who experienced given instances 'sometimes' or more, it was observed that the proportions could rise up to 44 percent. The situation was more serious when the instance threshold was determined as 'rarely'. The rarest instance was the use of webcam images without consent, and 7.27 percent of participants reported to experience such things rarely or more. These findings regarding the extent of the problem in a Turkish undergraduate context were parallel with a previous study which resorted to the same data collection tool (Akbulut et al., 2010c). Since cyberbullying has been reported to occur less but damage emotionally more than other

cyber threats (Livingstone, Haddo, Görzig & Ólafsson, 2010), the instructional and administrative agenda of educational institutions should be empowered with relevant precautions.

The confirmation of the communicator styles with two different tools (i.e. scale and checklist) revealed that –except for the subconstruct of ‘animated’, which requires physical and nonverbal communication signals– all communicator styles in face-to-face and the online setting were related at a probability value below 0.05 where correlations ranged between 0.35 to 0.78. This implied that face-to-face communicator styles were somewhat transferred to the online setting. That is, the finding might be used to maintain that cyber behavior patterns could be extensions of individuals’ face-to-face communicator styles. However, further studies are necessary to claim that cyberbullying instances can be an extension of face-to-face bullying, which was previously suggested (e.g., Juvonen & Gross, 2008).

Relationships between cyberbullying victimization and each communicator style were also calculated through correlation coefficients. The solution with 55 valid participants revealed that there was not any statistically or practically significant relationship between the communicator styles and cyberbullying victimization. The highest correlation coefficient rose up to .21; however the sample was not sufficient to signalize statistical significance. The only significant variable predicting cyberbullying victimization was the forum use which explained 12.46 of the variance in the victimization outcome ($r=.353$; $p=.008$). This finding retained a previous one regarding the influence of forum use on cyberbullying victimization (Akbulut et al., 2010b).

There was not any statistically significant relationship between the final grades and cyberbullying victimization. In this regard, further large-scale and preferably longitudinal studies focusing on the influence of cyberbullying on academic achievement are needed. On the other hand, communicator styles predicted final grades, which was expected (Cho et al, 2007). The most important predictor of the final grades was the subconstruct of contentious ($r=.386$; $p=.003$), which explained 14.9 percent of the variability in final achievement. The course requirements involved participation in online discussions. So, such a finding was considered common sense as contentious individuals are likely to be more argumentative.

Students’ discussion posts were evaluated with regard to cyberbullying instances. A total of 67 cyberbullying instances were observed, which was a relieving proportion among 3076 comments (2.2 %). Since the participants’ gender was not known to other interlocutors, gender did not serve as a critical predictor. More specifically, there was not a considerable difference between the number of male ($n=14$) and female victims ($n=12$) as previously suggested (Patchin & Hinduja, 2006). However if the group was more heterogeneous and if the genders of the students were obvious, gender differences could have been expected as found in many studies (e.g., Akbulut et al., 2010b; Aricak et al., 2008; Erdur-Baker & Kavşut, 2007; Li, 2006).

Findings revealed that the nature of arguments and the degree of participation varied with regard to the topic of the week. This variation was obvious in terms of cyberbullying as well. More specifically, even though twenty main topics and tens of additional topics were covered, only specific topics led to cyberbullying. These were politics, ethnicity, popular culture, national agenda, entertainment and religion. The total number of cyberbullying instances with regard to discussion topics is given in Table 2.

Table 2. Topics which Triggered Cyberbullying

Topic	Cyberbullying instances (f)
Politics	15
Ethnicity	18
Popular culture	3
National agenda	8
Entertainment	2
Religion	21
Total	67

As can be inferred from Table 2, controversial subjects led to higher instances of bullying. These subjects included sub-topics like taboos, sexuality, social pressure, human rights and censorship. On the other hand, agreed-upon themes did not lead to instances of flaming such as interesting news and cultural events. National agenda stood as a separate theme in the analysis. Even though the comments regarding the national agenda of Turkey were expected to coincide with politics, ethnicity, popular culture and religion; some instances were free of these common characteristics, which constituted a unique theme with eight instances.

In addition to the topic type, the nature of discussions also predicted the number of cyberbullying instances. When open-ended discussion topics were preferred by the students or the instructor, interlocutors could not reach a consensus easily. They lost temper and behaved aggressively to their addressees. However, when the discussion terms and conditions were clear and abundant scientific data were already available, a consensus was easily reached and aggression level was lowered.

Individual analysis of cyberbullying instances revealed that certain types of cyberbullying were prevalent whereas some instances were never observed (Figure 1). This was normal since the conditions of the current setting were not convenient for masquerade or trickery examples. Such instances may be observed in online gaming and social networking sites more. On the other hand, the slight decrease in the number of coding agreements between the two researchers stemmed from the differentiation among flaming, harassment and cyberstalking. In the end, researchers agreed that the current setting was not a convenient context to observe cyberstalking instances.

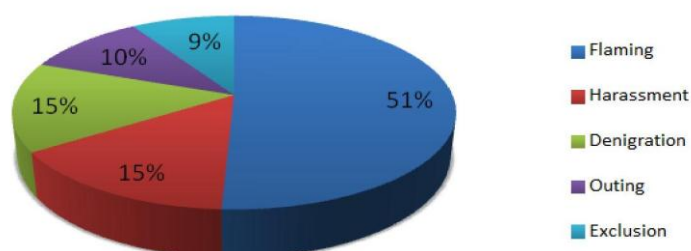


Figure 1. Distribution of Cyberbullying Instances

The distribution of bullies with regard to communicator styles was also unique. That is, certain communicator styles were accompanied by cyberbullying (Figure 2). Communicator styles of online bullies were dominant, contentious, impression leaving, relaxed, open and precise. In contrast, dramatic, animated, attentive and friendly students did not resort to cyberbullying.

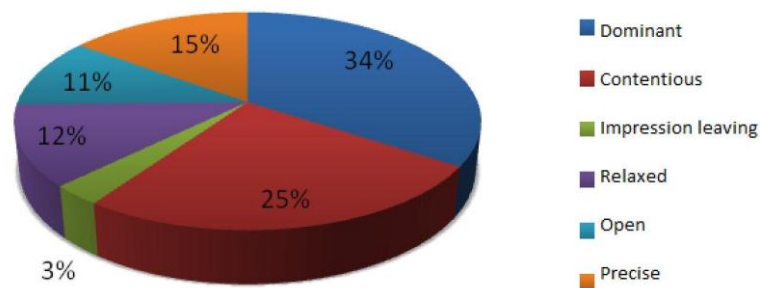


Figure 2. Cyberbullying Instances with regard to Communicator Styles

The relationship between the communicator styles and cyberbullying instances was examined through a cross tabulation provided in Table 3. In addition to the information provided in Figure 1 and 2, valuable inferences may be drawn from the table since the unique type of cyberbullying behavior was provided with regard to the corresponding communicator style. For instance, the contentious communicator style predicted a considerable amount of the variance in the final grades. On the other hand, qualitative analysis revealed that contentious individuals cyberbullied more frequently than individuals with several other styles (i.e. except the dominant style). Moreover, contentious students demonstrated all types of cyberbullying observed in the current study. Further in-depth analyses with large-enough samples may imply an unfortunate hypothesis that successful learners in online discussions might be more likely to be cyber bullies.

Table 3. Cyberbullying Instances with regard to Communicator Styles

	Flaming	Harassment	Cyberstalking	Denigration	Masquerade	Outing	Trickery	Exclusion	Total
Dominant	12	5	-	4	-	-	-	2	23
Dramatic	-	-	-	-	-	-	-	-	0
Contentious	9	3	-	3	-	1	-	1	17
Animated	-	-	-	-	-	-	-	-	0
Impression leaving	2	-	-	-	-	-	-	-	2
Relaxed	5	2	-	-	-	-	-	1	8
Attentive	-	-	-	-	-	-	-	-	0
Open	3	-	-	-	-	4	-	-	7
Friendly	-	-	-	-	-	-	-	-	0
Precise	3	-	-	3	-	2	-	2	10
Total	34	10	0	10	0	7	0	6	67

Some excerpts may be used to exemplify cyberbullying instances observed in the online discussions. While translating the original excerpts, angry, rude and vulgar language involving heavy swearing was slightly moderated with corresponding euphemisms. The following flaming instance was demonstrated by a student with a dominant communicator style:

"...Dude. I will not decide what to think through your silly, crappy words. Who the heck you think you are? You think you're a human being? Be a human first, be a man first. You should question whether you deserve a tiny piece of what you have been criticizing".

Dominant communicator style is usually related to assertiveness (Norton, 1983). Dominant individuals' interaction nature involving self-confidence, excitement, ambition, authoritativeness and competitiveness might have prevented them from posting responsibly. In addition, throughout the implementation, it was observed that they had the highest desire to determine the discussion topics. That is, they wanted to have and demonstrate the power. In the sample excerpt, in order to take the control back, the dominant individual resorted to vulgar language which looked like an instance of cyberbullying.

Another excerpt from a contentious student was examined by the researchers, and identified as an instance of both flaming and harassment because of the context of the argument. That is, similar offensive messages were repeatedly sent to harass the same addressees:

"These godless, faithless, impious infidels lay out their dirty asses and bodies, and consider this freedom, which I despise. Actually, I think you should be given more freedom so that we take advantage of those ... :)"

According to Norton (1983) contentious communicator style involves being argumentative. The variable is closely associated with the dominant style; however, it further entails negative components. Contentious students in the online platform were eager to convey their messages regardless of the nature of the topic. They were good at taking turns, joining in new discussion topics and controversializing. On the other hand, they targeted personal preferences and characteristics of their addressees rather than the gist of the current discussion topic. In the sample situation, the bully guessed that the victim was a female. Through a sexist approach, s/he targeted the clothing preferences and sexuality of the victim while the discussion was on human rights.

A denigration example from a precise learner is provided below. The context and the creation of this utterance resembled some properties of cyberstalking. However, the cyberstalking pattern was quite ambiguous since the student left the corresponding Turkish idiom unfinished, which implied two different meanings:

"Dude! As long as s/he tells such things, s/he does not have any information regarding our religion. If s/he had some information, s/he would not say such things regarding the faith. Besides, I'm sure s/he cannot prove the source of that information. S/he needs to try to be more literate regarding these subjects before filling in this page with such lies. Anyways, you see the consequences in the end."

As mentioned beforehand, precise communicator style is exact, clear and meticulous. They inclined in conveying their messages directly and clearly. They do not serve ambiguity. Ironically, the ambiguous idiom in the end could not be interpreted by the researchers. In the excerpt, the precise individual asks for the resources of the information h/she considers speculative. S/he wants to confirm the information with robust resources. On the other hand, s/he is prejudging the addressee's value system. Moreover, s/he is trying to blame the addressee for not knowing the religious teachings properly and diffusing incorrect information.

The following excerpt was considered an outing example, which was posted by a student with open communicator style. The excerpt carries characteristics of other bullying instances as well:

"...Well... You are telling these, but as long as I understand from your sentences, you are the one who created the ...controversy in class today. Even though your nickname looks normal, there is certainly some anomaly in you. You expose yourself through your sentences everywhere."

Activities of the open communicator are characterized by 'being controversial, expansive, affable, convivial, gregarious, unreserved, unsecretive, somewhat frank, possibly outspoken, definitely extroverted, and obviously approachable' (Norton, 1978, p. 101). Since open communicators readily reveal their personal information in communicative interactions, they may expect the same from their addressees. In the example, s/he posted a message about another student that contained private information not to be revealed. Probably, s/he did not think that sharing the personal information was wrong. S/he might even be willing to excuse others' sharing such information. However, if the addressee of such a revealing was an introverted individual, results of such actions might be quite bothersome.

The excerpt below could be used to exemplify exclusion behavior demonstrated by a student with a relaxed communicator style:

"...dude. Let me analyze you. Your common characteristic is to entertain, to cheer, to eat, to drink, to have fun in bars throughout the nights, then to talk about poverty. What a wonderful world! Why are guys like you not contributing to a fund drive when needed, but always talk about helping others?"

The relaxed communicator style demonstrates different messages. While being relaxed may involve calmness, peace and serenity; it may also indicate confidence and comfortableness (Norton, 1983). The main characteristic of relaxed can be regarded as the lack of tension. Relaxed people do not have anxiety or trouble conveying their messages. However, the student in the example was so relaxed that s/he thought it did not hurt to denounce an addressee as morally corrupt or disingenuous. In this regard, the sentence structure may look like a flaming or denigration example as well. The student particularly implied a previous discussion in the classroom on popular culture and entertainment, and tried to isolate the addressee from the mainstream tendency of the whole group particularly through the idiom 'guys like you'.

While analyzing the qualitative data, it was clear that some instances involved multiple cyberbullying characteristics. In this regard, naming them as exclusion, outing, flaming or denigration was somewhat problematic. Probably, a scoring list for every instance regarding the degree of each characteristic can work better in further implementations.

Conclusion

The current study retained the findings of previous ones regarding the extent of the problem. While the anonymous questionnaire data led to serious results, the number of cyberbullying examples in a formal online classroom setting was over two percent. Conclusions on the predictors of cyberbullying were partially in line with the current literature probably because of the characteristics of the current online discussion forum and the homogeneity of the study group. In addition, the current study could not reveal a direct relationship between achievement and cyberbullying. However, students with a certain communicator style were more likely to be successful and bully one another, which may suggest an unexpected relationship between cyberbullying and achievement in e-learning settings. Further studies should be conducted to test such an intimidating probability since considering more successful online learners as more likely to bully would be too audacious at this stage.

Even though the quantitative data did not reveal statistically significant relationships between the communicator styles and cyberbullying victimization, qualitative analysis demonstrated that cyberbullying instances varied with regard to communicator styles. Furthermore, cyberbullying instances were more likely to occur with certain topics and in ill-defined or open-ended discussion scenarios. Such findings may be culture specific or depend on the intellectual characteristics of the study group. However, they may be used to arrange effective e-learning settings through considering the behavior changes between face-to-face and online settings, and through controlling scenarios that may result in cyberbullying. Such instances can also be eliminated by offering learners more opportunities to entertain the joy of heated, fruitful but well-organized discussions. In order to equip them with critical skills to debate responsibly, further opportunities may be needed where taboos and dogmas are not interfering with the intellectual freedom.

When cyberbullying is defined, the anonymity of the perpetrators is emphasized as a source of the power conflict. Individuals maintain a different level of confidence through anonymity. Besides, the pressure of the super ego decreases and the realities of physical interactions are constrained (Ayaz, 2001). In the current setting, there were fewer chances to create an imbalance of power and strength among interlocutors since everybody used nicknames. Nevertheless, an online community evolved, students' online identities were developed with those nicknames and they further claimed the rights of those nicknames against face-threatening acts of flaming, harassment, denigration and so on. Thus, the predictive power of impersonation in the nature of formal online discussions should be examined further so that the degree of anonymity is arranged in a way to trigger better intellectual skills and control excessive aggression.

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Appendix

Descriptives regarding cyberbullying victimization

Instance	Never	Rarely	Sometimes	Very often	Always	Mean	SD	% of rarely and above	% of sometimes and above
Facing with cursing or slang language while using instant messaging programs.	9	21	16	7	1	2.4	1	83	44
Receiving messages with religious or politic content without my consent.	13	23	15	3	1	2.2	0.9	76	35
Receiving harassing e-mails or instant messages.	14	25	14	0	2	2.1	0.9	75	29
Receiving obscene e-mails.	19	22	9	3	2	2	1	65	25
Confronting with people hiding their identities while communicating with me.	18	24	10	2	1	2	0.9	67	24
Being invited to social applications including gossips or inappropriate chat.	21	19	13	2	0	1.9	0.9	62	27
Being disturbed by people I do not want to chat with in the instant messaging programs.	27	18	7	3	0	1.8	0.9	51	18
Receiving instant messages or e-mails including incorrect or bad things about my friends.	30	17	8	0	0	1.6	0.7	45	15
Losing my passwords or being obliged to change them because of password thieves.	32	16	4	1	1	1.6	0.9	41	11
Being mocked in online social utilities because of my physical appearance, my character or an instance I experienced.	32	15	8	0	0	1.6	0.7	42	15
Receiving unwanted content to my personal computer without my consent.	36	12	4	1	2	1.6	1	35	13
Being urged to vote for or sign in a religious, politic or sports group.	35	12	6	2	0	1.6	0.8	36	15
Receiving proposals with sexual allusion from people I know / I do not know.	35	15	2	2	1	1.5	0.9	36	9.1
Deception by people who are pretending to be someone else.	35	16	3	1	0	1.5	0.7	36	7.3
Being blocked by others in instant messaging programs.	36	15	4	0	0	1.4	0.6	35	7.3
Being specifically and intentionally excluded from an online group / chat room.	39	11	4	1	0	1.4	0.7	29	9.1
Suffering from software aiming to get my personal information.	39	11	4	1	0	1.4	0.7	29	9.1
Publication of my personal information through e-mails or instant messaging tools without my consent.	39	14	1	1	0	1.4	0.6	29	3.6
Receiving insulting e-mails or instant messages.	41	11	2	1	0	1.3	0.6	25	5.5
Seeing incorrect and mean-spirited things written about me.	42	11	1	1	0	1.3	0.6	24	3.6
Publication of my personal photographs and videos without my consent.	42	10	3	0	0	1.3	0.6	24	5.5
Seeing obscene images while using the Webcam.	42	10	3	0	0	1.3	0.6	24	5.5
Facing with people using my personal information without my consent.	43	9	3	0	0	1.3	0.6	22	5.5
Confronting with tricks to get my personal information and publish it on the Web.	45	8	1	1	0	1.2	0.6	18	3.6
Seeing people speaking on my behalf using my nickname without my knowledge.	45	7	3	0	0	1.2	0.5	18	5.5
Having problems because my personal information is shared online without my consent.	46	5	3	0	0	1.2	0.5	15	5.6
Receiving threatening e-mails or instant messages.	49	6	0	0	0	1.1	0.3	11	0
Use of my Webcam images without my consent.	51	2	2	0	0	1.1	0.4	7.3	3.6