

The Effect of Personality on Cyberbullying among University Students in Turkey

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Abstract

Problem Statement: Cyberbullying is associated with significant psychological issues among young people such as depression, emotional distress, low self-esteem, and poor academic achievement. It is also regarded as an increasingly emergent problem in educational settings, **putting learners' psychological health, safety, and well-being at risk.** Recent research has shown that a growing number of students are victims of cyberbullying and a wider realization and a thorough understanding of cyberbullying is needed.

Purpose of the Study: This survey-based study set out to explore the relationship between personality traits and cyberbullying among university students receiving education through either face-to-face or distance education modes.

Methods: A sectional research design and correlation survey method was adopted throughout the study. As a causal and comparative study, the dependent variable was set as cyberbullying (actively bullying others and/or being bullied) and the independent variable included five personality types. A path model was developed and tested in order to investigate the effects of learning modes and aforementioned personality types on two levels of cyberbullying.

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Findings and Results: The good fit indexes belonging to the model indicated acceptable conditions and capacity for explaining the relations among the variables. Emotional instability was observed as the leading predictor of being cyberbullied with a medium effect size. On the other hand, the weakest predictor of being bullied was found to be openness to experience with a minor level negative effect size. The developed model was observed to be valid for both face-to-face and distance education learning modes. In addition, a positive and medium level relationship between **bullying and being exposed to bullying was observed. Ward's hierarchical cluster analysis** conducted on the points obtained from the cyberbullying scale revealed that the majority of the group rarely bullies and is rarely exposed to cyberbullying.

Conclusions and Recommendations: This study contributes to the extant literature on bullying in a few conceptual areas. For instance, few research studies have examined the bullying issue in the tertiary context and through learning modes. The current investigation was limited by using a single data set to conduct all analyses. Further research is recommended to involve various variables such as cross-cultural effects on cyberbullying.

Keywords: Cyberbullying, personality traits, distance education, path analysis, cluster analysis

Introduction

The extensive use of Internet and many information and communication technologies (ICT) including computers and mobile phones has transformed the traditional learning atmosphere to a cyberworld in which learners experience many new feelings. Furthermore, the advent of social networking sites and the widening use of synchronous chat sites are adding landscapes to this cyberworld (Stacey, 2009). However, as the enormous technological developments provide more opportunities to enhance learning, all educators are required to rethink the problems related to ethical use of the Internet (Baker & Kavsut, 2007; Wright et al., 2009). A welcoming and hospitable learning environment is sustained when it is known how to exploit the undisputed benefits of the Internet and also avoid technology-caused problems such as cyberbullying. Cyberbullying is transmitted by adolescents and teens through electronic media such as cell phones, websites, web-cams, chat rooms, and email to torment, threaten, harass, humiliate, embarrass, or otherwise target someone (Shariff & Johnny, 2007; Shariff, 2009).

The notion of bullying can be summarized as recurring aggressive behaviors conducted toward more fragile people (Pişkin, 2003, 2006a, 2006b; Pişkin & Ayas, 2005; Karaman-Kepenekçi & Çinkır, 2006). Advancements in information and communication technologies and widespread access to the Internet have led to the emergence of a new-generation bullying form in cyber relations. Recent research has indicated that a growing number of students are victims of cyberbullying and that a wider realization and a thorough understanding of cyberbullying is needed (Ang &

Goh, 2010; Arıcak, 2009; Cross, 2008; Thompson, Smith, & Goldsmith, 2008). Bullying is associated with significant psychological issues among young people such as depression, emotional distress, low self-esteem, and poor academic achievement (Mason, 2008; Ybarra & Mitchell, 2004; Ybarra et al., 2006). It is also regarded as an **increasingly emergent problem in educational settings, putting learners' psychological health, safety, and well-being at risk** (Kepenekci & Çınkır, 2006; Li, 2007; Mason, 2008). In their leading study exploring school bullying experiences of **public high school students in Turkey**, Kepenekçi and Çınkır (2006) reported that bullying is a serious problem in Turkish educational settings and preventive measures such as defining the concept of "bullying" precisely and providing intervention programs are required to overcome bullying in the Turkish context, which is also the focus of the current research. Relatively, in another study examining the predictive roles of social skills and life satisfaction on bullying and being bullied, Hiloğlu and Cenksever-Önder (2010) have found that negative social behaviors and perceived social satisfaction from life and friendship do have significant effects on bullying and being bullied. Cyberbullying does not occur in school settings, though the effects of cyberbullying on students impact their learning and are experienced in the school environment (Bhat, 2008). As many students felt that it was necessary to learn how to deal with cyberbullying by themselves (Trolley, Hanel, & Shields, 2009; Li, 2007), educators should develop effective strategies to guide their students.

Since it is a new area being studied, many questions have been raised and left unanswered within the scope of cyberbullying research (Seeley et al., 2009). Most research carried out so far has been mostly confined to examining just one aspect of cyberbullying and online harassment, such as the prevalence of cyberbullying behaviors among adolescent populations (Smith et al., 2008). The international research literature on cyberbullying focused on variables such as gender bullying versus cyberbullying, culture, psychology, and means of bullying (Campbell, 2005; Li, 2007; Smith et al., 2006). There is less understanding of what factors motivate young people to cyberbully and whether we can predict cyberbullying behaviors stemming from specific psychological reasons (Dilmac, 2009). No research to date has focused on the effect of personality traits and learning mode on cyberbullying. This study, therefore, explores the effect of personality traits and learning mode on **tertiary level students' behaviors associated with cyberbullying**. By focusing on the predictive role of personality traits and mode of instruction on experiencing cyberbullying, the current study aims to contribute to teachers' strategies for developing and managing skills and knowledge about cyberbullying. Thus, it may be easier to educate school children and other people and provide them with strategies to effectively deal with 21st-century bullying techniques.

A substantial part of the literature posits that bullies, victims, and bully-victims have different psychological and social profiles (Dilmac, 2009; Haynie et al., 2001; Pellegrini, Bartini, & Brooks, 1999; Piskin, 2002), such as having high emotionality and low self-control, being both proactively and reactively aggressive and dominant (Juvonen, Graham, & Shuster, 2003; Pellegrini et al., 1999), and showing little

empathy for their peers (Bernstein & Watson, 1997). O'Moore, Minton, and McGuckin (under review; cited from Moore & Minton, 2010) point out that neuroticism was highest among those involved as victims only; psychosis was highest among those involved as bullies only; extraversion was highest among those involved as bullies through general bullying but not cyber-bullying. In the guidelines to help identify whether a person is being cyberbullied, the Missouri Internet Crimes against Children Task Force (2010) underlines "change in personality" as an indicator of being bullied by stating that a normally upbeat person may suddenly become sad, angry, or depressed. Victims of bullying are perceived as having psychological problems such as depression, loneliness, low self-esteem, school phobias, and social anxiety. Corcoran, Connolly, and O'Moore (2008) argued that the cyberbullies and "traditional" victims showed significantly higher neuroticism scores when compared to each other. Olweus (1989) explored traditional (face-to-face) bullying, cyberbullying, and personality correlates among a representative sample of 3,004 students. O'Moore, Minton, and McGuckin (under review; cited from Moore & Minton, 2010) concluded that while methodologically not directly comparable, the findings regarding bullying behavior and personality were broadly consistent with, or understandable within the context of, the outcomes of earlier research.

As declared in the literature, gender has a significant role in violence and bullying in educational settings. As another research issue in bullying literature, when gender was considered, research (Borg, 1999; Boulton & Underwood, 1992) demonstrated that males and females showed different patterns in bullying-related behaviors. In relation to sex differences, extensive research work has shown that **boys' greater involvement in general bully/victim problems and girls' greater involvement as (especially) targets of cyber-bullying** pose particular areas of concern (Hoover & Olsen, 2001; Nabuzoka, 2003; Pellegrini & Bartini, 2000). Ayas and Pişkin (2011) also reported a significant discrepancy among Turkish secondary level pupils, showing that males both generate more bullying behaviors and expose more bullying than female students. Thus, gender is claimed to predict cyberbullying and cyber victimization. In terms of the culture, while Li (2007, p. 439) puts the emphasis on the universal aspect of the bullying problem with evidence from a wide range of countries, Nabuzoka (2003) underlines the variety of behaviors of students from different countries and cultures in such a case. This may result from the fact that people in different cultures may hold different beliefs or religions. Since culture is related to bullying and victimization, it is logical to argue that culture should be considered as a predictor for cyberbullying and cyber victimization.

This study aims to investigate the effect of personality traits on bullying and being bullied among higher education students. Analyzing whether the model is valid for face-to-face and distance education groups, the correlation between being bullied and bullying, and groups' distribution according to bullying and being bullying are the other aims of the study. The secondary aims of the study are to test the validity of the model on two learning modes, face-to-face and distance education, to investigate the relation between cyberbullying and being bullied, and to determine the distribution of the groups in terms of cyberbullying and being bullied in cyber environments. For this purpose, the anticipated hypothesis model is shown below:

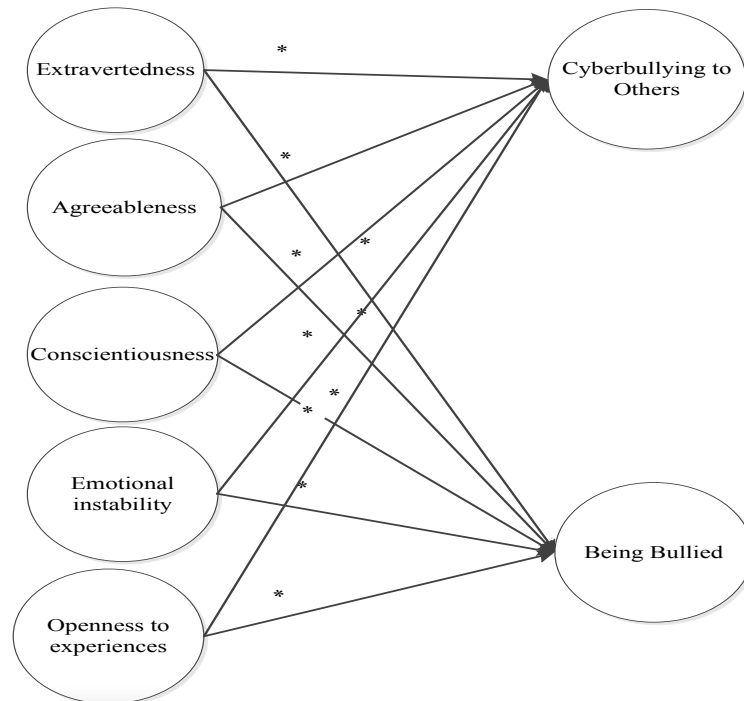


Figure 1. Hypothesis Model of Personality Traits-Cyberbullying

The following hypotheses were addressed within the current research in line with the proposed model:

1. The direct effect of personality traits on cyberbullying of others is significant.
2. The direct effect of personality traits on being bullied is significant.

Methods

This survey-based study set out to explore the relationship between personality traits and cyberbullying among university students receiving education through either face-to-face or distance education modes. A sectional research design and correlation survey method was adopted throughout the study. As a causal and comparative study, the dependent variable was set as cyberbullying (actively bullying others and/or being bullied) and the independent variable included five personality characteristics: extraverted nature; emotional stability; conscientiousness; agreeableness; and openness to experiences. A path model was developed and tested in order to investigate the effects of learning modes and the aforementioned personality characteristics on two levels of cyberbullying.

Participants

The participants of the study included 230 students enrolled in both formal and distance education computer programming courses and selected through the purposive sampling method (Buyukozturk et al., 2008). The data collection instruments were administered to 230 participants, none of whom were removed from the dataset since they responded to all items and there were no central tendency errors. The educational profiles and gender features of the participants were tabulated below.

Table 1

Descriptives on Participants' Demographic Features

Variable		N	%
Gender	Female	96	41.7
	Male	134	58.3
Learning Mode	Face-to-face Education (f2f)	121	52.6
	Distance education (DE)	109	47.4
Total		230	100.0

Data collection instruments

In addition to a personal data form aiming to obtain information on demographic features of the participants, a personality inventory and a cyberbullying scale were utilized to gather data. The *Ten-Item Personality Inventory (TIPI)*, developed by Gosling, Rentfrow and Swann (2003) and adapted to Turkish by Atak (2012), was used to assess personality. A scale including ten items with a seven-level rubric is used to assess five major personality traits. The adapted scale was administered to 420 participants within the age range of 18-25 years. The statistical findings of the adaptation process (language validity; correlations varying between 0.92-0.97; exploratory: five factors and 10 items; explained variance 65.21%; and confirmatory: χ^2/sd : 2.20, GFI .95, AGFI .92, CFI .93, NNFI .91, RMR.04, and RMSEA .03; item analysis; and criterion based validity) supported the good fit of the scale for the use on Turkish adolescents. The interval validity and test re-test method also indicated acceptable scale reliability.

The cyber-bullying scale utilized in this study was developed by Ucanok, Karasoy, and Durmus (2011) on the basis of cyberbullying inventory developed by Erdur-Baker and Kavşut (2007) and revised by Topcu (2008). Including 26 items, the scale has two parallel forms with a four-level response starting from never (1) to more than three (4). While the highest point that can be obtained from the scale is 104, the lowest point is 26. While the "a" option refers to being bullied by others, the "b" option connotes bullying of others. The varimax rotation analysis revealed a one-factor structure for both parts of the scale, explaining the 39.42 and 43.13 of the total variance. The Cronbach's value for the "a" (being bullied) part of the scale is observed as .92; the value is .93 for the part "b" on bullying.

Data Analysis

Descriptive statistics were used to analyze participants' demographic features and means of scales. Path analysis with observed variables was utilized in the current study to test the developed model at a .05 significance level. Prior to pursuing model analysis, the assumptions of the model (outlier, multicollinearity, relations between the variables, and sample size) were tested. Initially, the data set was checked in terms of outlier and multicollinearity and it was concluded that no tolerance, variance inflating factors (VIF), and multicollinearity between the variables were observed depending on the condition indexes. In other words, the data set did not include any conditional indexes greater than 0.50 and 30 accompanying two factors, tolerances closer to zero or VIF value greater than 5-10. In addition, Mardia's Multivariate Kurtosis test was used to check univariate and multivariate distribution features of the scales. The covariance and correlation coefficients calculated from large samples are regarded as more stable compared to those calculated from small sample sizes (Kline, 2005). The model analyses are based on covariances among variables. A sample of 200 participants is considered as adequate for middle size models, though, as in the multi-regression, expected effect size and the distribution of the variables are an effect of the power of the analysis. Thus, while determining the sample size, not having fewer than 10 people for each parameter, it is suggested to use the ratio between the number of the participants and parameters ($N/P \cong 10$) (Kline, 2005). The proposed model in the current study includes 10 parameters, and the ratio of participant groups to the number of parameters was observed as (210/10) 21, which indicates an acceptable sample size to test the path model. Additionally, relations between exploratory and inferential variables (linear, quadratic, cubic, and logarithmic, etc.) were examined by means of curve estimation method. Since there was no significant difference between R^2 values inferred from transformed variables and the R^2 values obtained from the raw (linear) counterparts, no transformation was applied to the data. However, the Yuan-Bentler model was utilized during the model analysis in order to minimize errors that might be caused by the normality of the variable distribution. The strength of the Structural Equation Model outperforms when there are linear relations among the variables showing normal distribution. The relations among the variables were observed as linear, and no variance was observed through the levels of the variables (heteroscedasticity). All the aforementioned clues have maintained that the assumptions of the path analysis (outlier, multicollinearity, relations between the variables and sample size) were provided within the data set.

Process

The data were gathered voluntarily from face-to-face students on a group basis. Distant students were provided data individually through the school's online system. Students were provided with explanations of the objective of the study prior to the application of the instruments, which took face-to-face learners 15 minutes to complete.

Results

This section is devoted to the results of descriptive and correlational statistical analyses conducted in relation to the dependent and independent variables of the current study. The findings of the models developed within the current study were also reported. Means and standard deviations were calculated and tabulated below.

Descriptive statistics

Means and standard deviations belonging to the variables of the study were calculated and are shown in Table 2 below.

Table 2

Descriptive Statistics

	\bar{X}	SD
Extravertedness	9.48	2.56
Agreeableness	8.79	2.68
Conscientiousness	10.70	2.38
Emotional instability	9.88	2.84
Openness to experiences	7.55	2.63
Being cyberbullied	27.88	3.87
Cyberbullying	29.40	6.02

Table 2 highlights that while the respondents received the highest point from the conscientiousness ($X = 10.70$) sub-scale among the personality types, openness to experience ($X = 7.55$) was the least popular option. The means of the respondents' values obtained from the cyberbullying scale were observed as 27.88 for being cyberbullied and 29.40 for cyberbullying.

Results of personality traits and cyberbullying model

The findings related to zero-order correlations between the variables and standardized coefficients, representing relations among the variables of the developed model, and good fit indexes of the model are presented here. The correlations among the variables are shown below in Table 3.

Table 3
Zero-Order Correlations Among the Variables

	Extravertedness	Agreeableness	Conscientiousness	Emotional instability	Openness to experiences	Being bullied	Bullying others
Extravertedness	1	-.03	-.05	-.26**	-.31**	.03	-.03
Agreeableness		1	-.05	.29**	.29**	.16*	-.01
Conscientiousness			1	.01	-.14*	-.01	-.20**
Emotional stability				1	.56**	.21**	.28**
Openness to experience					1	-.03	.03
Being bullied						1	.51**
Cyberbullying							1

*p < .05, **p < .01

In terms of the relations between the personality traits and being bullied, while the lowest relationship is observed with agreeableness ($r = .16$, $p < .05$), the highest relation rate occurred with emotional instability ($r = .21$, $p < .01$). Additionally, no relation was observed between being a victim of bullying and the other personality traits. On the other hand, the two personality traits that showed relation with bullying of others are observed as conscientiousness ($r = -.20$, $p < .05$) and emotional instability ($r = .28$, $p < .01$). The overall fit indexes of the model are presented below.

Table 4.
The Overall Fit Indexes Related to Post-Hoc Model Variances

The good fit index	Value
χ^2 / sd^* (53,91/18)	2.99
RMSEA	0.044
NNFI	0.90
CFI	0.92
RMR	0.01
SRMR	0.04
NFI	0.90
GFI	0.94

* p<.01

Table 4 indicates that the good fit indexes belonging to the model are at acceptable levels. The fit index rates of the models' components (personality types and Internet addiction), which indicate a good fit (Kline, 2005), are observed as follows: $sd = 18$, $\chi^2 = 53.91$ ($p = 0.00$), $RMR=0.011$, $SRMR = 0.04$, $RMSEA = 0.044$, $GF I = 0.94$, $NFI = 0.90$, $CFI = 0.92$, $NNFI = 0.90$. The *standardized coefficients* for each parameter are presented in Figure 1.

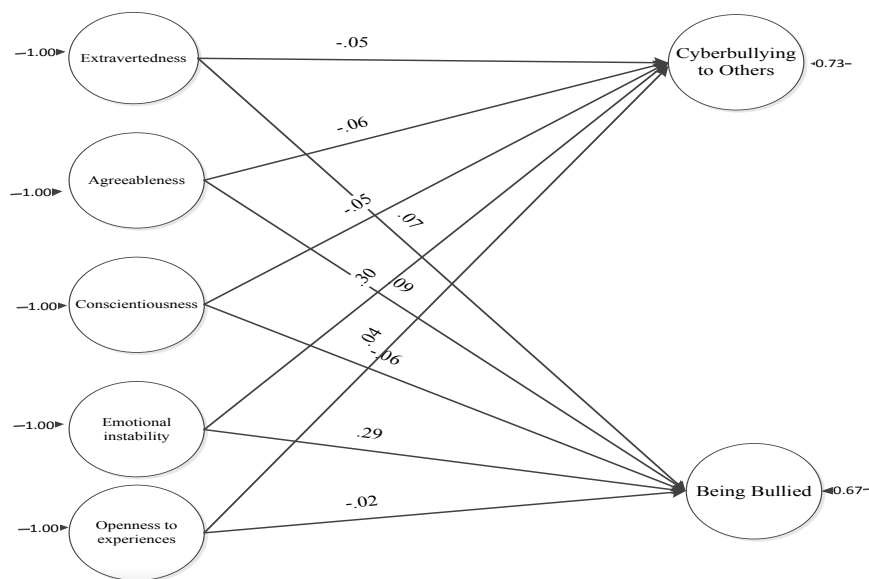


Figure 2. Final Model (Standardized Coefficients)

Figure 2 depicts that standardized coefficients implying relations between personality traits and being bullied vary between .02 and .29 ($p < .01$). Among the personality traits, the leading predictor of being bullied is found to be emotional instability ($\beta = .29$, $p < .01$) with a medium level effect size. This finding points out that there is a positive ratio between emotional instability and being bullied. Adversely, the weakest predictor of being bullied is observed as openness to experience ($\beta = -.02$, $p < .01$) with a minor effect size. This single result implies that openness to experience is a diminishing factor of being exposed to bullying. Relatively, the model infers that while extravertedness possesses a low level effect on being bullied ($\beta = .07$, $p < .01$), agreeableness ($\beta = .09$, $p < .01$) and conscientiousness ($\beta = -.06$, $p < .01$) are observed as having a minor effect size. In other words, while the more the individuals show extraverted and agreeable traits, the more they are being bullied and the more they behave with conscientiousness, the less they encounter cyberbullying.

Standardized coefficients implying relations between personality traits and being bullied vary between .04 and .30 ($p < .01$). Emotional instability is observed as the highest predictor of bullying ($\beta = .30, p < .01$) with a medium level effect size. This finding points out that there is a positive ratio between emotional instability and bullying others. The weakest predictor of bullying is observed as openness to experience ($\beta = .04, p < .01$) with a low level effect size. This finding indicates that tendency to cyberbullying increases when the individuals are open to experiences. In terms of the model, while extravertedness possesses a low level effect on bullying ($\beta = -.05, p < .01$), agreeableness ($\beta = -.06, p < .01$) and conscientiousness ($\beta = -.05, p < .01$) are observed as having a minor effect size. That is to say, being extraverted, agreeable, and conscientious are diminishing factors for bullying other people.

Testing the validity of the model for both learning modes

Multi-sample path analysis was utilized to see whether the model is valid for both face-to-face and distance education groups. Means and standard deviations obtained from groups' responses to the data collection instruments are presented below.

Table 5

Descriptive Statistics Belonging to Face-To-Face (F2f) and Distance Education (DE) Groups

	Group	N	M	SD
Extravertedness	f2f	121	9.47	2.44
	DE	109	9.49	2.70
Agreeableness	f2f	121	8.73	2.72
	DE	109	8.86	2.65
Conscientiousness	f2f	121	10.62	2.38
	DE	109	10.78	2.38
Emotional stability	f2f	121	9.80	2.89
	DE	109	9.97	2.79
Openness to experience	f2f	121	7.57	2.71
	DE	109	7.52	2.55
Being bullied	f2f	121	29.69	6.31
	DE	109	29.09	5.69
Bullying	f2f	121	27.80	3.78
	DE	109	27.96	3.99

The table shows that both groups received very close rates from the data collection instruments. The values for possible models are presented in Table 6 below.

Table 6

Results of Multi-Group Path Analysis for the Personality Traits/Being Bullied-Bullying Model

Models	χ^2/Sd	RMSEA	Δ RMSEA
Model A	2.99	0.044	
Model B	2.90	0.042	0.002
Model C	2.88	0.040	0.004
Model D	2.97	0.039	0.005

The findings related to the comparisons of the basic model (Model A) with Model B, Model C, and Model D are as follows: The fit indexes (RMSEA values) of Model B (having inner relations of the groups between the variables), Model C (having free error variances and coefficients between the variables), and Model D (having different error variances for each group) are not significantly higher than Model A (assuming similar coefficients between the variables for each group).

Furthermore, χ^2/sd ratios for all models are observed as nearly 2.9. In the light of these findings, Model A, having the highest fit indexes compared to the other groups, is accepted. The difference between the chi-square values is not observed as statistically significant, implying that the chi-square value is not affected by sample size. To sum up, the personality type/cyber bullying model is valid for both face-to-face and distance education learners.

The relation between being bullied and bullying

The Pearson correlation analysis was exploited to respond to one of the aims of the study as exploring the relation between bullying and being bullied. The outcome of the analysis revealed a medium level positive correlation between bullying and being bullied ($r = 0.51$; $p < .01$). This finding indicates a two-way correlation between bullying and being bullied and means that bullying is responded to by counter bullying.

Group's distribution according to bullying and being bullied

In order to define the distribution of the group in terms of bullying and being bullied, Ward's hierarchical cluster analysis was conducted on the points obtained from the cyberbullying scale. The analyses revealed two clusters for bullying: cluster 1 for low level bullying; cluster 2 for high level bullying. Similarly, two clusters were obtained for being bullied: cluster 1 for representing low level victimization of bullying and cluster 2 for representing high level victimization of bullying. Means and standard deviations related to cluster analysis are tabulated below.

Table 7

Results of Cluster Analysis Conducted on the Cyberbullying Scale

	Cluster	N	%	\bar{X}	SD
Bullying	Bullying (Minor)	218	94.8	27.10	1.84
	Bullying (Major)	12	5.2	42.05	3.74
Being Bullied	Being Bullied (Minor)	214	93.0	28.05	2.79
	Being Bullied (Major)	16	7.0	47.53	8.10
Total		230	100		

As portrayed in Table 7, the cluster analysis pointed out that while 94.8% of the respondents are seen as bullying at a low level, 5.2% of them are labeled in the highly bullying category. In addition, while 93% of the total respondents declared being exposed to bullying at a low level, 7% of them reported being victims of bullying at a high rate.

Discussion and Conclusion

The current study aimed to explore the direct effect of personality traits on cyberbullying among university students in two learning modes. The good fit indexes belonging to the model indicated an acceptable condition and capacity for explaining the relations among the variables (Hu & Bentler, 1999).

As postulated by Kepenekci and Çinkır (2006), the main characteristic of bullies is the need to feel powerful and in control. One of the more significant findings to emerge from the current study is that emotional instability is the leading predictor of being cyberbullied with a medium effect size. An implication of this finding is that there is a positive correlation between emotional instability and being bullied. Despite the scarcity of the literature focusing on the relations between personality traits and cyberbullying, this specific finding can be explained with theoretical connections stating that emotionally unstable individuals, who are generally anxious, fragile, and depressed, are not as successful as emotionally stable people in terms of social interaction (Hojat, 1982).

Since they experience inner loneliness much more than other people (Morahan-Martin & Schumacher, 2000) and feel (themselves) alone (Batigun & Hasta, 2010; Erdoğan, 2008), the tendency of overusing Internet and social networking platforms (Batigun & Hasta, 2010; Hamburger & Ben Artzi, 2000; Eijnden, Meerkerk, Vermulst, et al., 2008; Erdoğan, 2008) make them open to exposure to bullying. Furthermore, being exposed to bullying seems to trigger developing bullying behavior for those people. Surprisingly, the weakest predictor of being bullied was observed as openness to experience, with a minor level negative effect size. In the light of this finding and the previous research (Levin & Stokes, 1986; Tuten & Bosnjak, 2001) linking personality and interaction skills, it can be claimed that being bullied tends to decrease as openness to experience increases.

Another major finding is that, while being conscientious has a minor negative effect on being bullied, agreeableness and extravertedness were observed as having a minor level positive effect. This finding supports previous research into the field, which underlines the negative relation between Internet use and conscientiousness (Tuten & Bosnjak, 2001; Durak-Batıgun & Kılıç, 2011). The findings of this study also posit that being bullied tends to diminish as conscientiousness increases. Since conscientious individuals are known as more disciplined and trusted, they may satisfactorily get social support (Tuten & Bosnjak, 2001). Thus, being conscientious diminishes the need for using the Internet for social purposes and prevents individuals/people from being bullied. Another important finding is that there is a positive correlation between being bullied and having extraverted and agreeable traits. As a supportive statement to this finding, Kraut et al. (2002) pointed out a positive correlation between amount of Internet use and being extraverted. Since extravertedness facilitates extending social interaction (Inderbiten, Walters, & Bukowski, 1997; Kubey, Lavin, & Barrows, 2001), extraverted people seem to be more prone to being bullied.

In terms of the second aspect of the cyberbullying scale used in the current study, the major predictor of bullying others was observed as emotional instability with a medium level effect size. In having a fragile and sensitive personality, emotionally unstable people may have flaws in social interaction (Hojat, 1982) and feel loneliness (Morahan-Martin & Schumacher, 2000; Batıgun & Hasta, 2010; Erdoğan, 2008). Thus, they tend to generate bullying in cyber environments. Overuse of the Internet may also be a motivating factor for those individuals to bully (Hamburger & Ben Artzi, 2000; Batıgun & Hasta, 2010; Eijnden, Meerkerk, Vermulst, et al., 2008; Erdoğan, 2008). On the other hand, among the personality traits, openness to experience was observed as the weakest predictor of bullying, with a minor effect size.

According to the model, extravertedness, agreeableness, and conscientiousness have a negative predictive role on bullying at a minor rate. In accordance with the previous research underlining the negative relation between Internet use and conscientiousness (Tuten & Bosnjak, 2001; Durak-Batıgun ve Kılıç, 2011), trusted and disciplined people preferring face-to-face interaction (Tuten & Bosnjak, 2001) do not show bullying behaviors. Extraverted and agreeable people are known/regarded as easygoing both in carrying out tasks and initiating social interaction. Kraut et al. (2002) maintain there is a negative relation between Internet use and being extraverted and agreeable. Hence, we can conclude that extraverted and agreeable people do not perform bullying actions in cyber interaction platforms.

One of the most obvious findings to emerge from this study is that the developed model is valid for both face-to-face and distance education learning modes. This finding implies that learning mode does not have an effect on cyberbullying or being bullied in cyber environments. Since there are insufficient data on the cyberbullying within different learning modes in the literature, these findings support our understanding of the various effects of learning modes.

Little research, if any, explored the effect of students' personality types and learning mode on cyberbullying. For the first time, therefore, this study has

investigated the possible effect of university students' personalities on being a cyberbully and/or a victim. As a result of the rapid development and diffusion of digital technology, the Internet has become an integral part of students' lives. The expansion of Internet use in daily life could be an explanation for obtaining similar relations between personality traits and cyberbullying within two learning modes. As pointed out by Jackson et al. (2003), the Internet is accessible not only for people of high socio-economic status but is also being used for various purposes including social interaction by low income individuals. The number of the registered users of the Internet in Turkey has exploded within the last decade and reached nearly half of the population (<http://www.Internetworldstats.com>). In light of these statistics, the validity of the model in two learning modes can be understood with the fact that Internet use is getting easier for Turkish people. Although there is no direct effect between the learning modes and cyberbullying, the developed model can be tested with different variables in further research opportunities.

In some cases, an important factor against revealing cyberbullying is that students feel reluctant to report cyberbullying incidents. Many of the victims choose not to tell others about the incidents. In other words, victims' strategies to cope with cyberbullying are either to ignore it or to try getting away from it rather than informing others (Li, 2010).

Another obvious finding to emerge from this study is that a positive and medium level relationship between bullying and being exposed to it has been observed. It is encouraging to compare this figure with that found by the previous research (Ybarra & Mitchell, 2004; Norret & Rivers, 2006; Raskauskas & Stoltz, 2007; Erdur-Baker & Kavut, 2007; Dilmac, 2009; Aricak, 2009) that claimed that people acting out bullying behavior are likely to receive it. Hence, this result is consistent with those of other studies and suggests that there may be relation between bullying and being bullied. Two clusters have been obtained from the distribution analyses focusing on both bullying and being bullied. The bigger cluster observed for bullying (94.8%) corresponds to those who rarely bully, and the latter one (5.2%) points out bullies at a high rate. In the same way, the larger of the two clusters observed for being bullied showed that the majority of the group (93%) has been exposed to cyberbullying at a low rate.

This study contributes to the extant literature on bullying in a few conceptual areas. First, few research studies have examined the bullying issue in the tertiary context and through learning modes. Second, in this paper, cyberbullying is examined at a point where it has seldom been studied. Several limitations to this pilot study need to be acknowledged. Mainly, the current investigation was limited by using a single data set to conduct all analyses. Another limitation of the study is the homogeneity of its sample, and further research should consider consulting and comparing broader groups. Then, the model developed in the current study has examined only personality traits and cyberbullying. Further research is recommended to involve various variables such as cross-cultural effects on cyberbullying.

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Kişilik Özelliklerinin Siberzorbalık Üzerindeki Etkisi

Atıf:

Çelik, S., Atak, H., & Erguzen, A. (2012). The effect of personality on cyberbullying among university students in Turkey. *Egitim Arastirmalari – Eurasian Journal of Educational Research*, 49, 129-150.

(Özet)

Problem Durumu

Depresyon, duygusal stres, düşük öz yeterlik ve akademik başarı gibi çeşitli psikolojik değişkenlerle ilişkili olan siber zorbalık, günümüzde öğrenme ortamları için de giderek büyüyen bir sorun haline gelmekte ve öğrencilerin psikolojik sağlıklarını, güven duygularını ve motivasyonlarını olumsuz yönde etkileme potansiyeli taşımaktadır. İlgili alanyazında siberzorbalıkla ilgili yapılan çalışmalara bakıldığında, bu çalışmaların genelde yaygınlık belirleme çalışmaları olduğu görülmektedir. Ayrıca, bu çalışmalarda siberzorbalık ile ilişkili olabilecek kişilik gibi psikolojik değişkenlerin ilişkisinin incelenmediği de dikkati çekmektedir. Bu bağlamda, bu değişkenlerin ilişkisinin incelenmesi, ilgili alanyazına katkı sağlayabileceği gibi, kişilik ile siber zorbalık yapma ve maruz kalmanın ilişkisinin yönü ve gücü hakkında da bilgi verebilir.

Araştırmanın Amacı

Bu çalışma, yüzyüze ve uzaktan eğitim programlarında öğrenim gören üniversite öğrencilerinin kişilik özellikler ile siber zorbalığa maruz kalma ve siber zorbalık yapma durumları arasındaki ilişkiyi incelemektir. Çalışmanın ikinci amacı, geliştirilen modelin yüzyüze ve uzaktan eğitim ortamlarında öğrenim gören grublarda geçerliğini incelemektir. Araştırmanın diğer amaçları ise siberzorbalık yapma ile siberzorbalığa maruz kalma arasındaki ilişkiyi ve grubun siberzorbalık yapma ve uğramaya göre dağılımlarını belirlemektir.

Araştırmanın Yöntemi

Bu nedensel karşılaştırma çalışmasında ilişkisel tarama yöntemi kullanılmıştır. Aynı zamanda, bu çalışma “nedensel karşılaştırmalı” bir çalışmadır. Çalışmanın katılımcıları yüzyüze ve uzaktan eğitim programlarında öğrenim gören ve Kırıkkale Üniversitesi Bilgisayar programcılığı bölümüne kayıtlı olan 230 üniversite öğrencisinden oluşmaktadır. Çalışmada veriler, 10-Maddeli Kişilik Ölçeği ve Siberzorbalık Ölçeği kullanılarak elde edilmiştir. Çalışmada kişilik özellikleri ve öğrenme ortamlarının siber zorbalığa maruz kalma ve siber zorbalık yapma üzerindeki etkilerini incelemek için bir yol modeli geliştirilmiştir. Araştırmanın bağımlı değişkenleri siber zorbalık yapma ve siber zorbalığa uğrama; bağımsız değişkeni ise dışadönüklük, duygusal dengesiz olma, sorumluluk, yumuşak başlılık ve deneyime açıklık olmak üzere beş temel kişilik özelliğidir. Katılımcıların tamamı Kırıkkale ilinde üniversiteye devam eden öğrenciler ve bu üniversitede uzaktan eğitim alan öğrenciler olmak üzere 230 katılımcıdan oluşmaktadır. Katılımcılar, amaçlı (purposive) örnekleme çeşitlerinden maksimum çeşitlilik yöntemiyle belirlenmiştir. Katılımcıların demografik özelliklerinin ve ölçeklerden alınan ortalama puanların analizinde frekans ve yüzde dağılımı ve betimsel istatistikler kullanılmıştır. Geliştirilen modeli test etmek için, “gözlenen değişkenlerle yol analizi (path analysis with observed variables) yöntemi kullanılmıştır. Geliştirilen modelin

her iki öğrenim grubunda geçerli olup olmadığı çoklu-grup yol analizi ile incelenmiştir. Araştırmada veriler, örgün eğitim grubundan veriler toplanırken çoğunlukla grup uygulaması, uzaktan eğitim grubundan veriler toplanırken ise bireysel uygulama tercih edilmiştir. Veriler toplanırken gönüllülük ilkesi esas alınmış, gerekli durumlarda katılımcılara ek açıklamalar yapılmıştır.

Araştırmanın Bulguları

Katılımcılar kişilik özelliklerinden en yüksek puanı Sorumluluk alt ölçeğinden ($\bar{X}=10,70$) almışken, en düşük puanı Deneyime Açıklık alt ölçeğinden ($\bar{X}=7,55$) almışlardır. Kişilik özellikleri ile zorbalığa maruz kalma arasındaki ilişkilere bakıldığında, zorbalığa maruz kalma ile en düşük ilişkinin yumuşak başlılık ile ($r=.16$, $p < .05$); en yüksek ilişkinin ise duygusal dengesizlik ($r=.21$, $p < .01$) arasında olduğu, diğer kişilik özellikleri ile ilişkinin olmadığı görülmektedir. Kişilik özellikleri ile zorbalık yapma arasındaki ilişkilere bakıldığında, zorbalığa maruz kalma ile en düşük ilişkinin sorumluluk ile ($r=-.20$, $p < .05$); en yüksek ilişkinin ise duygusal dengesizlik ($r=.28$, $p < .01$) arasında olduğu, diğer kişilik özellikleri ile ilişkinin olmadığı görülmektedir. Geliştirilen yol modeline ilişkin iyilik uyum değerleri kabul edilebilir düzeydedir ($sd=18$, $\chi^2=53.91$ ($p=0,00$), $RMR=0.11$, $SRMR=0.04$, $RMSEA=0.044$, $GFI=0.94$, $NFI=0.90$, $CFI=0.92$, $NNFI=0.90$). Kişilik özelliklerinden modelde zorbalığa maruz kalmanın en güçlü yordayıcısı duygusal dengesizlik iken, en zayıf yordayıcısı ise deneyime açıklıktır. Kişilik özelliklerinden zorbalık yapmanın en güçlü yordayıcısı duygusal dengesizlikken, zayıf yordayıcısı ise deneyime açıklıktır. Yapılan çoklu-grup yol analizi sonucunda, kişilik özellikleri-siberzorbalık modelinin örgün ve uzaktan eğitim gruplarında geçerli olduğu bulunmuştur. Korelasyon analizi sonucunda, zorbalık yapma ile zorbalığa maruz kalma arasında orta düzeyde olumlu bir ilişki ($r=0,51$; $p < .01$) bulunmuştur. Zorbalık yapmaya ilişkin analiz sonucunda iki küme oluşmuştur ve 1 numaralı kümenin "düşük düzeyde zorbalık yapmayı", 2 numaralı kümenin ise "yüksek düzeyde zorbalık yapmayı" temsil ettiği kabul edilmiştir. Benzer biçimde, zorbalığa maruz kalmaya ilişkin analiz sonucunda iki küme oluşmuştur ve 1 numaralı kümenin "düşük maruziyeti", 2 numaralı kümenin ise "yüksek maruziyeti" temsil ettiği kabul edilmiştir. Siberzorbalık Ölçeği puanları üzerinde Ward'ın hiyerarşik küme analizi yöntemi kullanılarak yapılan analiz sonucunda, grubun % 94.8'i düşük düzeyde, % 5.2'si ise yüksek düzeyde zorbalık yapmakta; grubun % 93'ü zorbalığa düşük düzeyde maruz kalmakta, % 7'si ise yüksek düzeyde maruz kalmaktadır.

Araştırmanın Sonuçları ve Önerileri

Araştırmanın bulguları ilgili alanyazına çeşitli açılardan katkıda bulunmaktadır. Öncelikle bu çalışma üniversite öğrencileri düzeyinde siber zorbalık yapma ve siber zorbalığa maruz kalma ilişkisini farklı öğrenme ortamları kapsamında inceleyen sınırlı sayıda araştırma arasında yer almıştır. Bu çalışmada elde edilen bulguların bazıları literatürle uyumlu iken, bazıları uyumlu değildir. Bulgular alanyazın bağlamında tartışılmıştır. Çalışmanın temel kısıtlılığı bütün çözümlerinin tek bir veri grubu üzerinden yapılmış olmasıdır. Bundan sonraki çalışmaların siber zorbalık üzerinden kültürler arası farklılıklara yoğunlaşması ve daha fazla sayıda değişken içermesi önerilir.

Anahtar Sözcükler: Siberzorbalık, kişilik özellikleri, uzaktan eğitim, yol analizi, küme analizi