

# Investigating the Relationships Between Cognitive Flexibility, Cyberbullying and Problematic Internet Use in Adolescents

Fidan Baran<sup>1</sup>, Ali Çekiç<sup>2</sup>

<sup>1</sup> Gaziantep Üniversitesi /Türkiye

<sup>2</sup>Corresponding Author, Gaziantep Üniversitesi / Türkiye

**Özet:** *The main purpose of this study is to examine whether there is a significant relationship between problematic internet use, cognitive flexibility and cyberbullying in high school students. Descriptive research method, which is one of the quantitative research methods, was used in the study in order to collect and statistically analyze and evaluate the research data. The research data were collected from high school students studying in different high school types in Diyarbakır province of Turkey. As a result of the study, a low level statistically significant negative relationship was found between cognitive flexibility scores and problematic internet use and cyberbullying scores.*

**Anahtar Kelimeler:** *Adolescent, cognitive flexibility, problematic internet use, cyberbullying.*

## 1. Giriş

Research on negative life experiences during adolescence (Caplan, 2005; Sally, 2006) show that the problems that arise as a result of these negative experiences affect adolescents cognitively, socially, emotionally, physically and behaviorally. This makes it important for individuals in high school to make sense of, evaluate and cognitively cope with problems such as peer relations (Zorbaz & Dost, 2014), social skills/communication problems (Ekşi & Ümmet, 2013) and mental health problems (Şahan & Çapan, 2017). The fact that individuals cannot find solutions to their problems in real life and shift to social platforms via the internet may reveal some risky/problematic internet use situations.

The expansion of the use of the Internet has led to the emergence of positive and negative effects on adolescents. Although the Internet has brought many conveniences to our daily lives such as access to information, communication with people in distant places and places, ease of shopping, and wide research opportunities, it has also brought some problems (cyberbullying, internet gaming disorder, cyber fraud, pornography, inability to get away from internet use, isolation from social life...) (Şenyiğit, 2018).

It is thought that cognitive flexibility may be effective in high school students' coping resources against the concepts of cyberbullying and problematic internet use and the problems brought by these concepts. In this context, the question "Is there a relationship between cognitive flexibility, problematic internet use and cyberbullying in high school students?" constitutes the main problem of the research.

## 2. Method

The study is a descriptive study examining the relationships between cognitive flexibility, problematic internet use and cyberbullying in high school students. In the study in which relational survey model, one of the quantitative research types, was used, the participants were selected by simple random sampling method. The

sample group of the study consisted of a total of 1020 participants, 700 girls (62.5%) and 420 boys (37.5%) studying in 6 different high schools in Diyarbakır province. “Personal Information Form”, “Cognitive Flexibility Scale”, “Problematic Internet Use Scale-Adolescent Form” and “Cyberbullying Scale” were used to collect data.

### 3. Results

Spearman's rank correlation coefficient was used to check the relationships between the scores of cyberbullying scale; problematic internet use scale and its sub-dimensions of negative consequences of internet use, overuse, social benefit; cognitive flexibility scale and its sub-dimensions of evaluation indicator, power indicator, activity indicator and the results are given in Table 1 below.

Table 1: Correlation results between cognitive flexibility, problematic internet use and cyberbullying variables.

Puanlar		2	3	4	5	6	7	8	Cyberbullying
1. Assessment Indicator	r	0,548	0,703	0,883	- 0,266	- 0,234	- 0,222	-	- 0,264
	p	<0,001*	<0,001*	<0,001*	<0,001*	<0,001*	<0,001*	0,263 <0,001*	<0,001*
2. Power Indicator	r		0,626	0,837	- 0,278	- 0,221	- 0,338	-	- 0,235
	p		<0,001*	<0,001*	<0,001*	<0,001*	<0,001*	0,301 <0,001*	<0,001*
3. Activity Indicator	r			0,858	- 0,291	- 0,299	- 0,260	-	- 0,255
	p			<0,001*	<0,001*	<0,001*	<0,001*	0,304 <0,001*	<0,001*
4. Cognitive Flexibility	r				- 0,325	- 0,269	- 0,317	-	- 0,215
	p				<0,001*	<0,001*	<0,001*	0,336 <0,001*	<0,001*
5. Negative use of Internet	r					0,622	0,591	0,947	0,336
	p					<0,001*	<0,001*	<0,001*	<0,001*
6. Excessive use of Internet	r						0,434	0,738	0,282
	p						<0,001*	<0,001*	<0,001*
7. Using Internet for social good	r							0,770	0,344
	p							<0,001*	<0,001*
8. Problematic use of Internet	r								0,360
	p								<0,001*

\*p<0,05;

## 4. Conclusion

As a result of the study, a low level statistically significant negative relationship was found between high school students' cognitive flexibility total scores and cognitive flexibility sub-dimensions (evaluation indicator, power indicator and activity indicator) and problematic internet use total scores and problematic internet use sub-dimensions (negative use of internet, excessive use and social benefit). It was found that as the cognitive flexibility levels of high school students increased, their problematic internet use decreased.

When the research analyses were examined, a low level statistically significant negative relationship was found between high school students' cognitive flexibility total scores and cognitive flexibility sub-dimension scores (evaluation indicator, power indicator and activity indicator) and cyberbullying scores. On the other hand, a statistically significant relationship was found between high school students' problematic internet use total scores and problematic internet use sub-dimensions (negative consequences of the internet, excessive use and social benefit) scores and cyberbullying scores. As high school students' problematic internet use increases, their cyberbullying behaviors also increase.

As a result, a low level statistically significant negative relationship was found between cognitive flexibility scores and problematic internet use and cyberbullying scores. It can be said that as the cognitive flexibility levels of high school students increase, they use the internet less problematically and exhibit less cyberbullying behavior patterns.

## 5. References

- [1] Caplan, S. E. (2005). A social skill account of problematic Internet use. *Journal of communication*, 55(4), 721-736.  
<https://doi.org/10.1111/j.1460-2466.2005.tb03019.x>
- [2] Ekşi, F., ve Ümmet, D. (2013). Bir kişilerarası iletişim problemi olarak internet bağımlılığı ve siber zorbalık: Psikolojik danışma açısından değerlendirilmesi. *Değerler Eğitimi Dergisi*, 11(25), 91-115.
- [3] Şahan, M., ve Çapan, B. E., (2017). Ergenlerin problemleri internet kullanımında kişilerarası ilişkilerle ilgili bilişsel çarpıtmaların ve sosyal kaygının rolü. *Ege Eğitim Dergisi*, 18(2), 887-913.
- [4] Sally, L. P. M., (2006). Prediction of internet addiction for undergraduates in Hong Kong. Baptist University, Hong Kong, UMI Dissertation Information Service.  
<https://doi.org/10.12984/egeefd.336391>
- [5] Şenyiğit, A. (2018). *Lise öğrencilerinin bilişsel esnekliklerine göre problemleri internet kullanımlarının incelenmesi*. [Yüksek Lisans Tezi, Mersin Üniversitesi]. Ulusal Tez Merkezi.  
<https://tez.yok.gov.tr/UlusalTezMerkezi/tezSorguSonucYeni.jsp>
- [6] Zorbaz, O., ve Dost, M. T. (2014). Lise öğrencilerinin problemleri internet kullanımının cinsiyet, sosyal kaygı ve akran ilişkileri açısından incelenmesi. *Hacettepe Üniversitesi Eğitim Fakültesi Dergisi*, 29(29-1), 298-310.