

## THE RELATIONSHIP BETWEEN PROBLEMATIC INTERNET USE AND ACADEMIC BURNOUT IN UTBK PARTICIPANTS

Respati Kusumawardhani<sup>1</sup>, Riana Sahrani<sup>2</sup>, & Fransisca Iriani R. Dewi<sup>3</sup>

<sup>1</sup>Undergraduate of Psychology, Universitas Tarumanagara, Jakarta  
Email: respati.717211031@stu.untar.ac.id

<sup>2</sup>Faculty of Psychology, Universitas Tarumanagara, Jakarta  
Email: rianas@fpsi.untar.ac.id

<sup>3</sup>Faculty of Psychology, Universitas Tarumanagara, Jakarta  
Email: fransiscar@fpsi.untar.ac.id

Enter : 06-04-2024, revision: 15-04-2024, accepted for publication : 20-05-2024

### ABSTRACT

*The Covid-19 pandemic has made educational institutions take various measures to prevent the spread of Covid-19 in schools by conducting distance learning, including high school students who participate Ujian Tulis Berbasis Komputer (UTBK). UTBK is Indonesia's public university entrance examination conducted by LTMPT (Lembaga Tes masuk Perguruan Tinggi). Distance learning carried out by UTBK participants is learning online, looking for practice questions, and looking for discussions via the internet. UTBK participants also use the internet to find entertainment. Unrestricted internet use can be problematic. Problematic internet use can cause academic burnout. The purpose of this study was to examine the Problematic Internet Use variable that resulted in UTBK participants experiencing academic burnout. Academic burnout refers to feeling tired of the demands of learning, having a cynical attitude towards learning, and feeling incompetent as a student or as a test taker. Problematic Internet Use is problematic or excessive internet use behavior, and causes negative consequences in young people (adolescents and young adults), such as reduced motivation to learn, sleep time, and fatigue. The sample of this study was high school students participating in UTBK, with an age range of 16-21 years (n=230). The sampling technique used purposive sampling. The research method is quantitative correlation. The measuring instruments used for data collection are the School Burnout Inventory (SBI) and the General Problematic Internet Use Scale 2 (GPIUS2). The results show that the Problematic Internet Use variable has a positive influence on Academic Burnout. Other results are in the discussion.*

**Keywords:** problematic internet use, motivation, academic burnout

### 1. PREFACE

The Covid-19 pandemic has made educational institutions take various measures to prevent the spread of Covid-19 in schools by conducting distance learning. The sudden change from face-to-face learning to distance learning without any preparation makes it difficult for students to do distance learning. Distance learning itself requires students to sit for hours in front of a laptop screen (Hidayat, 2020).

Staring at a laptop or cell phone screen for longer periods of time can have an impact on physical and mental health due to the light emitted from these devices. The impact of prolonged staring at a laptop or cell phone screen can include fatigue, headaches, decreased appetite, digestive problems, fever, and insomnia (Wahyuningtias, in Pustikasari & Fitriyanti, 2020). Based on data from research by Pustikasari and Fitriyanti (2021), 32% of respondents experienced illness during distance learning. One of the causes of illness during distance learning is due to the lack of food intake into the body. As many as 67.2% of respondents who have a frequency of eating less than three times a day. Lack of food intake can also cause difficulty concentrating when studying, so that they become tired faster. A total of 59.7% of respondents experienced fatigue during distance learning. The risk of fatigue will be more experienced by respondents who study for more than eight hours.

Obstacles such as difficulty concentrating or focusing, non-conducive environment, lack of motivation to learn and health problems are things that must be considered (Yudhistira & Murdiani, 2020). Based on the phenomenon of constraints related to distance learning, it can be concluded that students experience academic burnout. Academic burnout is a condition experienced by students characterized by feelings of exhaustion due to study demands, having a cynical and detached attitude towards study, and feeling incompetent or incapable as a student (Schaufeli et al., 2002).

Burnout is a prolonged response to severe emotional and interpersonal stress on the job, and is defined by three dimensions: job exhaustion, job cynicism, and feeling ineffective at work (Maslach et al., 2001). Academic burnout refers to feeling tired of learning demands, having a cynical attitude towards learning, and feeling incompetent as a student (Schaufeli et al., 2002; Salmela-Aro et al., 2008). Academic burnout can also be assumed to be due to a mismatch between a student's ability to do schoolwork and his or her expectations to succeed in school or be perceived as successful by others such as teachers, peers, and parents (Kiuru et al., 2008). Academic burnout was originally adapted by Schaufelli et al based on Maslach's job burnout theory and conducted on university students (Schaufelli et al., 2002), which was further developed by Salmela-Aro et al. (2008) in a school context. Academic burnout is defined by three dimensions: exhaustion (fatigue due to academic demands); cynicism (cynical and detached attitude from learning); and inadequacy (feelings of incompetence as a student) (Schaufelli et al., 2002; Salmela-Aro et al., 2008).

In Indonesia, several studies on the effects of distance learning on academic burnout have been conducted. Students who are unable to enjoy distance learning can potentially experience academic burnout. There were 50.94% of students who became respondents had a tendency to experience academic burnout (Yudhistira & Murdiani, 2020). Based on the duration of distance learning, students with a distance learning duration of more than nine hours tend to experience academic burnout. More high school student respondents experienced academic burnout than junior high school students (Sunawan et al., 2021).

Academic burnout has an impact on reduced academic performance and frequent absence from class (Seiberta et al., 2017). According to Maslach et al. (2001), one of the causes of burnout is caused by a lack of self-control in prioritizing tasks, which leads to piling up work. This lack of self-control can be caused by excessive internet usage (Christy et al., 2020). With distance learning, students will certainly not be separated from the internet. Students use the internet to use social media and play games (Hietajärvi et al., 2019). During the Covid-19 pandemic, it is undeniable that people from all over the world use the internet more often to interact with family, friends, coworkers, etc, which results in the use of the internet, especially social media, being more than the recommended time.

Problematic Internet Use is a consequence of a person's psychopathology (such as loneliness, anxiety, or depression) that gives rise to cognitive and maladaptive behaviors in internet use (Davis in Andangsari et al., 2019). These individuals will easily get caught up in excessive internet use to calm their mood or cope with the chaos they face (Caplan, in Andangsari et al., 2019). Problematic Internet Use was first conducted by Davis (in Caplan, 2010) and further developed by Caplan (2010). There are five dimensions used to determine Problematic Internet Use: preference of online social interaction (POSI), mood regulation, cognitive preoccupation, compulsive internet use, and negative outcomes (Caplan, 2010).

The use of digital technology to communicate (social networking), consistently increases academic burnout. Playing games (action gaming) was associated with high cynicism (Hietajärvi et al., 2019). The results of this study suggest that students' digital activities reflect different dimensions of academic well-being. Intense internet use can be driven by students' desire to have harmonious relationships (Vallerand et al., in Salmela-Aro et al., 2016) making adolescents cultivate their abilities and competencies. After that, they engage in more complex digital activities (Ito et al., in Salmela-Aro et al., 2016). However, some adolescents develop possessive desires (Vallerand et al., in Salmela-Aro et al., 2016), or even addictions, due to repetition of monotonous activities such as playing online games and/or using social media (Kaltiala-Heino et al., in Salmela-Aro et al., 2016).

Salmela-Aro's et al. (2016) longitudinal study found that adolescents who use the internet problematically can result in burnout and reduced attachment to their school. Furthermore, it was found that problematic internet use and burnout are like a cycle. Problematic internet use can lead to burnout, burnout can lead to problematic internet use, and so on. Problematic Internet Use can be defined as problematic or excessive use behavior on the internet, and causes negative outcomes in young people (adolescents and young adults) in the present and the future (Cho et al.; Dong et al.; Mittal et al.; Stavropoulos et al., in Anderson et al., 2017).

*Ujian Tulis Berbasis Komputer* (UTBK) is Indonesia's public university entrance examination conducted by LTMPT (*Lembaga Tes masuk Perguruan Tinggi*). In preparing for UTBK, high school students who are UTBK participants often use the internet to find information, additional lessons and entertainment. However, students' use of the internet can be excessive and problematic if not controlled. Problematic internet use in students can be characterized as being too engrossed in using the internet to forget time. Being too engrossed in using the internet to the point of forgetting time that occurs continuously can disrupt students' routines, namely learning. Disruption of learning routines can make it difficult for students to concentrate while learning (Salmela-Aro et al., 2016).

Students who have difficulty concentrating while studying tend to spend more time studying until their sleep time is reduced and experience fatigue. In addition, students also become disinterested in learning and do not see learning as meaningful. Students may also experience feelings of incompetence and inability to achieve their dreams. Exhaustion, disinterest in learning, and feeling inadequate are the three dimensions of burnout. Based on the previous explanation, it can be concluded that Problematic Internet Use can affect academic burnout in students (Salmela-Aro et al., 2016).

## **2. RESEARCH METHOD**

The participants of this research are high school students that participate in UTBK. This research uses purposive sampling technique. The participants involved in this study were UTBK participants in 2022 (n=230). The participants were aged 16-21 years old, female (79.6%) and male (20.4%).

This study uses a correlational quantitative approach. The quantitative approach in this study is used to determine the relationship between the dependent variable (academic burnout), the independent variable (Problematic Internet Use). Researchers will use a questionnaire to explore indications on the variables used, both dependent and independent variables. After the data from the questionnaire is collected, the researcher will then conduct a reliability test along with data hypothesis testing and other statistical tests.

The research was conducted by filling out a questionnaire through a google form link to high school students who took the *Ujian Tulis Berbasis Komputer* (UTBK). The google form link was distributed via Whatsapp, Twitter, Instagram, and Line. Researchers used google form links to make it easier for questionnaires to be distributed to participants. Academic burnout was measured using the School Burnout Inventory (SBI), developed by Salmela-Aro et al. (2009) which has been adapted into Indonesian by Rahman (2020). The instrument consists of 9 items measuring 3 components of academic burnout, namely, exhaustion ("I was overwhelmed by the UTBK material provided during study"), cynicism ("I lacked motivation during UTBK study and often thought of giving up"), and inadequacy ("I often felt unable to do my UTBK practice questions") rated on a 6-point Likert scale (1 = "strongly disagree"; 6 = "strongly agree"). Scale reliabilities were 0.617 for fatigue; 0.731 for cynicism; and 0.629 for decreased personal achievement.

Problematic Internet Use was measured using the General Problematic Internet Use 2 (GPIUS 2) scale, developed by Caplan (2010), which has been adapted into Indonesian by Andangsari et al. (2019). This instrument consists of 15 items that measure 5 components of Problematic Internet Use, namely preferring online social interaction ("I prefer online social interaction to in-person communication"), managing mood ("I have used the internet to make myself feel better when I feel sad"), cognitive preoccupation ("I always think about going online when I am offline"), compulsive internet use ("I have difficulty managing my internet time"), and negative consequences ("My internet use creates problems in my life") which were rated on a 5-point Likert scale (1 = "strongly disagree", 5 = "strongly agree"). The reliability of the GPIUS2 scale was 0.844. Data processing was carried out using SPSS version 27 software. Data processing was carried out in the form of reliability, frequency, correlation, difference, and regression.

### 3. RESULT AND DISCUSSION

There were three choices of participant exams, namely Science (60%), Social Science (39.6%), and Mixed (0.4%). A total of 43 participants (18.7%) crossed majors, from science majors and took the social exam or from social studies majors took the science exam. Participants' domiciles were in East Jakarta (20%), Central Jakarta (8.3%), South Jakarta (7.8%), North Jakarta (5.7%), West Jakarta (7.4%), Bogor, Depok, Tangerang, Bekasi (19.1%), and those in other domiciles amounted to 31.7% (Table 1).

**Table 1**

*Participants Overview (n=230)*

Characteristics	N	Percentage (%)
Domicile		
East Jakarta	46	20
Central Jakarta	19	8,3
South Jakarta	18	7,8
North Jakarta	13	5,7
West Jakarta	17	7,4
Bodetabek	44	19,1
Others	73	31,7
Exam Choices		
Science	138	60
Social Science	91	39,6
Mixed	1	0,4
Crossed Major		
Yes	43	18,7
No	187	81,3

The time to prepare for UTBK is less than one month (5.7%), one to three months (24.3%), four to six months (18.3%), seven to nine months (16.1%), ten to twelve months (21.7%), and more than one year (13.9%). Study time for UTBK was one to two hours (15.2%), three to four hours (38.3%), five to six hours (27.4%), seven to eight hours (12.2%), and more than eight hours (7%).

The time of using the Internet is one to two hours (2.6%), three to four hours (12.6%), five to six hours (25.7%), seven to eight hours (21.7%), and more than eight hours (37.4%). Internet use is for communication (95.7%), online learning (87.8%), sharing on social media (67%), playing online games (27.8%), seeking knowledge (83.5%), and other reasons (8.7%) (Table 2).

**Table 2**

*Overview of Participants Preparing for UTBK (n=230)*

UTBK Preparation		
Less than a month	13	5,7
Over 1-3 months	56	24,3
Over 4-6 months	42	18,3
Over 7-9 months	37	16,1
Over 8-12 months	50	21,7
More than 1 year	32	13,9

UTBK Study Time (hours)		
1-2	35	15,2
3-4	88	38,3
5-6	63	27,4
7-8	28	12,2
>8	16	7

Time Using the Internet (hours)		
1-2	6	2,6
3-4	29	12,6
5-6	59	25,7
7-8	50	21,7
>8	86	37,4

Internet Usage		
Communicate	220	95,7
Online learning	202	87,8
Sharing on social media	154	67
Playing online game	64	27,8
Searching for knowledge	192	83,5
Others	20	8,7

The categorization of academic burnout in research participants can be seen in Table 3. Out of 230 participants, 24 participants experienced low academic burnout (10.4%), 133 participants experienced moderate academic burnout (57.8%), and 73 participants experienced high academic burnout (31.7%). There were 30 participants experiencing low exhaustion (13%), 128 participants experiencing moderate exhaustion (55.7%), and 72 people experiencing high exhaustion (31.3%). For the cynicism dimension, 50 participants experienced low cynicism (21.7%), 116 participants experienced moderate cynicism (50.4%), and 64 participants experienced high cynicism (27.8%). For the incompetence dimension, 27 participants

experienced low incompetence (11.7%), 85 participants experienced moderate incompetence (37%), and 118 participants experienced high incompetence (51.3%).

**Table 3**

*Categorization of Academic Burnout in Research Participants*

<b>Categorization</b>	<b>N</b>	<b>Percentage (%)</b>
Academic Burnout	230	
Low	24	10,4
Moderate	133	57,8
High	73	31,7
Exhaustion	230	
Low	30	13
Moderate	128	55,7
High	72	31,3
Cynicism	230	
Low	50	21,7
Moderate	116	50,4
High	64	27,8
Inadequation	230	
Low	27	11,7
Moderate	85	37
High	118	51,3

The categorization of problematic internet use in research participants can be seen in Table 4. Out of 230 participants, 38 participants experienced low Problematic Internet Use (16.5%), 151 participants experienced moderate Problematic Internet Use (65.7%), and 41 participants experienced high Problematic Internet Use (17.8%).

**Table 4**

*Categorization of Problematic Internet Use in Research Participant*

<b>Categorization</b>	<b>N</b>	<b>Percentage (%)</b>
Problematic Internet Use	230	
Low	38	16,5
Moderate	151	65,7
High	41	17,8

From the correlation test results (Table 5), it was found that there was a significant correlation between *Problematic Internet Use* and academic burnout, with a correlation coefficient of 0.403 ( $p < 0.01$ ).

**Table 5**

*Results of Correlation Test between Variables*

<b>Variables</b>	<b>Academic Burnout</b>	<b>Problematic Internet Use</b>
Academic Burnout	-	
Problematic Internet Use	0,403**	-

From Table 6, the regression coefficient value of *Problematic Internet Use* on Academic Burnout is 0.345 with  $p < 0.01$ . This means that every 1% increase in *Problematic Internet Use*, the value of Academic Burnout will increase by 0.345. The influence of *Problematic Internet Use* on the dimension of Academic Burnout is 16.3%.

**Table 6**

*Regression Coefficient for Problematic Internet Use and Academic Burnout*

Variable	Academic Burnout		
	B	R	R <sup>2</sup>
Constant	18,630**		
Problematic Internet Use	0,345**	0,403	0,163

Based on table 7, there is no significant difference between female and male participants on the Academic Burnout variable. This can be seen from the Fatigue dimension has a significance of 0.548 ( $p>0.05$ ), the Cynical Attitude dimension has a significance of 0.604 ( $p>0.05$ ), and the Inadequation dimension has a significance of 0.372 ( $p>0.05$ ). The Problematic Internet Use has a significance of 0.968 ( $p>0.05$ ), so there is no significant difference between female and male participants.

**Table 7**

*Test Results Based on Gender*

Variable	Gender	N	Mean	Sig.
Exhaustion	Female	183	15,37	0,548
	Male	47	15,77	
Cynicism	Female	183	10,43	0,604
	Male	47	10,11	
Inadequation	Female	183	8,41	0,372
	Male	47	8,04	
Problematic Internet Use	Female	183	44,93	0,968
	Male	47	45,00	

In addition to differences in gender, researchers also conducted a difference test on groups that cross majored with those who did not cross majored (Table 8). There is a significant difference in the Problematic Internet Use, with a mean difference of 3.268 and a significance of 0.049 ( $p<0.05$ ), with the cross-major group experiencing higher Problematic Internet Use compared to the non-cross-major group. There is no significant difference between the cross-major and non-cross-major groups on the Academic Burnout.

**Table 8**

*Test Results Based on Cross Majors*

Variable	Cross Majors	N	Mean	Sig.
Exhaustion	Yes	43	15,81	0,513
	No	187	15,36	
Cynicism	Yes	43	11,21	0,109
	No	187	10,17	
Inadequation	Yes	43	8,56	0,519
	No	187	8,28	
Problematic Internet Use	Yes	43	47,60	0,049
	No	187	44,30	

This study was conducted to examine the moderating role of Motivation on the relationship between Problematic Internet Use and academic burnout in high school students who are UTBK participants. Based on the results of the study, there is a positive effect of Problematic Internet Use on academic burnout. However, the Motivation variable cannot be a moderator of the relationship between Problematic Internet Use and academic burnout.

Problematic Internet Use has a positive influence on academic burnout. Based on the results of this study, Problematic Internet Use is positively correlated and has a significant positive effect on each dimension of academic burnout (fatigue, cynicism, and incompetence). The effect of Problematic Internet Use on 16.3%. This result is in accordance with previous research that excessive internet use and internet use out of place can cause academic burnout (Salmela-Aro et al., 2016; Hietajärvi, et al., 2019). Çevik et al. (2020) stated that there is an effect of Problematic Internet Use on academic burnout in bullying perpetrators and victims of bullying.

The majority of participants in this study used the internet for more than eight hours (37.4%). The use of the internet with a very long duration occurs because during the Covid-19 pandemic, participants' internet use is not only used for entertainment and using social media, but also used for online learning (87.8%). Online learning began during Covid-19. Online learning is also said to be one of the causes of academic burnout in students (Yudhistira & Murdiani, 2020).

There is no significant difference in Problematic Internet Use and academic burnout experienced by men and women. These results are in line with the research of Bresó et al. (in Özdemir & Arslan, 2018), stating that there are no significant differences from gender on academic burnout variables. Özdemir and Arslan (2018), stated that there is no significant difference from gender on internet use. However, when compared based on cross-major groups, there are differences in Problematic Internet Use between groups that cross majors and those that do not cross majors. This difference is the latest finding of this study.

Based on UTBK study time, there was no significant difference in academic burnout experienced by participants. Both from the dimensions of fatigue, cynicism, and incompetence. This is in accordance with the research of Sunawan et al. (2020), that there is no significant difference from daily online learning time on academic burnout.

This research has weaknesses. First, data collection was carried out during the second batch of UTBK. In addition, there are also participants who have finished UTBK, because of that, they filled the data depends on what they feel at this time. Second, this study lacked participants who took the Mixed exam. The difference between participants who took the Science, Social Science, and Mixed exams could not be represented.

#### **4. CONCLUSIONS AND RECOMMENDATIONS**

The conclusion of this research is there is a positive effect of *Problematic Internet Use* on Academic Burnout in high school students participating in UTBK. For Future research might emphasize cross-major examinees for research on Problematic Internet Use, because based on this study cross-major participants experienced more Problematic Internet Use. Future research can use the Problematic Internet Use dimension of burnout conducted with participants who take exams other than UTBK (such as JLPT or IELTS) or subject olympiad participants, especially at a time close to the exam/competition. For UTBK participants are expected to be able to set limits on their internet usage, because problematic and unlimited internet usage makes UTBK participants experience academic burnout.

#### **Acknowledgement**

This study was a part of master thesis which has to be completed as prerequisite to accomplish Master degree in Educational Psychology in Universitas Tarumanagara, Jakarta, Indonesia.



## REFERENCE

- Andangsari, E. W., Djunaedi, A., Fitriana, E., & Harding, D. (2019). Indonesia Problematic Internet Use Scale. *Journal of Physics: Conference Series*. (Vol. 1175, No. 1, p. 012239). IOP Publishing. <https://doi.org/10.1088/1742-6596/1175/1/012239>.
- Anderson, E. L., Steen, E., & Stavropoulos, V. (2017). Internet use and problematic internet use: A systematic review of longitudinal research trends in adolescence and emergent adulthood. *International Journal of Adolescence and Youth*, 22(4), 430-454. <https://doi.org/10.1080/02673843.2016.1227716>.
- Caplan, S. E. (2010). Theory and measurement of generalized problematic internet use: A two-step approach. *Computers in Human Behavior*, 26(5), 1089-1097. <https://doi.org/10.1016/j.chb.2010.03.012>.
- Christy, A., Sahrani, R., & Heng, P. H. (2020). Academic burnout in digital era: Examining the role of problematic smartphone use, core self-evaluations, and academic achievement on academic burnout among medical students. *Advances in Social Science, Education and Humanities Research*, 586-590. <https://doi.org/10.2991/assehr.k.200515.098>.
- Hidayat, R. (2020, September 10). *Stres, Burnout, Jenuh: Problem Siswa Belajar Daring Selama COVID-19*. Tirto.id: <https://tirto.id/stres-burnout-jenuh-problem-siswa-belajar-daring-selama-covid-19-f3ZZ>.
- Hietajärvi, L., Salmela-Aro, K., Tuominen, H., Hakkarainen, K., & Lonka, K. (2019). Beyond screen time: Multidimensionality of socio-digital participation and relations to academic well-being in three educational phases. *Computers in Human Behavior*, 13-24. <https://doi.org/10.1016/j.chb.2018.11.049>.
- Maslach, C., Schaufeli, W. B., & Leiter, M. P. (2001). Job burnout. *Annual Review Psychology*, 397-422. <https://doi.org/10.1146/annurev.psych.52.1.397>.
- Özdemir, H. Ö., & Arslan, H. N. (2018) The moderating roles on the relation between internet addiction and burnout. *Ahi Evran Üniversitesi Sosyal Bilimler Enstitüsü Dergisi (AEÜSBED)*, 4(1), 31-41.
- Pustikasari, A., & Fitriyanti, L. (2021) Stress dan zoom fatigue pada mahasiswa selama pembelajaran daring di masa pandemi covid-19. *Jurnal Ilmiah Kesehatan*, 13(1), 25-37. <https://doi.org/10.37012/jik.v13i1.467>.
- Salmela-Aro, K., N., K., Pietikäinen, M., & Jokela, J. (2008). Does school matter? The role of school context in adolescents' school-related burnout. *European Psychologist*, 13(1), 12-23. <https://doi.org/10.1027/1016-9040.13.1.12>.
- Salmela-Aro, K., Upadyaya, K., Hakkarainen, K., Lonka, K., & Alho, K. (2016). The dark side of internet use: Two longitudinal studies of excessive internet use, depressive symptoms, school burnout and engagement among finnish early and late adolescents. *Journal of Youth and Adolescence*, 46(2), 343-357. <https://doi.org/10.1007/s10964-016-0494-2>.
- Schaufeli, W. B., Martínez, I. M., Pinto, A. M., Salanova, M., & Bakker, A. B. (2002). Burnout and engagement in university students. *Journal of Cross-Cultural Psychology*, 33(5), 464-481. <https://doi.org/10.1177/0022022102033005003>.
- Sunawan, S., Amin, Z. N., Sumintono, B., Hafina, A., & Kholili, M. I. (2021). The differences of student's burnout from level of education and duration daily online learning during covid-19 pandemics. *Proceedings of the 11th Annual International Conference on Industrial Engineering and Operations Management, Singapore*. 3723-3729.
- Yudhistira, S., & Murdiani, D. (2020). Pembelajaran jarak jauh: Kendala dalam belajar dan kelelahan akademik. *Maarif*, 373-393.