

THE CONNECTION BETWEEN PROBLEMATIC INTERNET USE, SOCIAL MEDIA USE AND ACADEMIC PROCRASTINATION: CASE STUDIES

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ABSTRACT:

The study aims to qualitatively examine the connection between problematic Internet use and academic procrastination and examine the effect of social media on academic procrastination among adolescents. The study is carried out based on an analysis of an interview with five participants. The age range of participants is 17 – 20 years old. Two questionnaires were used during the research: Procrastination Scale for Student Population – PSS and the Problematic and Risky Internet Use Screening Scale (PRIUSS). We also used a semi-structured interview, based on which we conducted case studies. Results showed that social media use might not lead to academic procrastination until it becomes problematic. We concluded that each of the cases describes the connection between the examined variables. In the study, how the subjects used the Internet to counteract performing academic tasks is highlighted. It implies that problematic Internet use is associated with academic procrastination by students.

KEY WORDS:

academic procrastination, case studies, problematic Internet use, social media use, students

1 Introduction

The Internet is one of the most widely used tools for students closely associated with disrupting the healthy functioning of adolescents. As we live in the age of technology, the development of information technology, especially the rapid proliferation of Internet-based social media such as *Facebook*, *Instagram* or *Twitter*, is becoming a common part of every adolescent's life.¹ Recent studies have shown that the use of the

¹ See: HOU, Y. et al.: Social Media Addiction: Its Impact, Mediation, and Intervention. In *Cyberpsychology: Journal of Psychosocial Research on Cyberspace*, 2019, Vol. 13, No. 1, p. 1-17. [online]. [2021-06-19]. Available at: <<https://cyberpsychology.eu/article/view/11562/10369>>.

Internet and social networking sites are an essential part of students' daily lives,² whereas social media use is currently the most predominant activity among adolescents.³ Students spend much of their leisure time online, and their attachment to social media may lead to negative consequences such as postponement of their academic work.⁴ Research from Nigeria,⁵ Iran⁶ and Germany⁷ has found that procrastination results from excessive social media use and proved that problematic Internet use impacts academic procrastination.

2 Academic Procrastination

Academic procrastination is the voluntary delay or postponement of study duties and obligations for later, especially obligations for which deadlines are set. The student knows about their responsibilities but avoids them and thus becomes frivolous to their responsibilities, and this delay determines the achievement of their academic goals.⁸ Academic procrastination negatively affects students' academic tasks, performance or well-being and has been anchored in anxiety or task evasiveness.⁹ Research has shown that students with academic procrastination tendencies do not perform any academic tasks until they feel a high level of anxiety.¹⁰ In this regard, research has shown the connection between academic procrastination and state anxiety and between academic procrastination and trait anxiety.¹¹ On the other hand, some studies have reported that academic procrastination behaviours reduce anxiety and thus have positive effects in fighting stress.¹²

Academic procrastination represents a problem for students depending on their personality traits or life situation. Research¹³ has found that students with a high level of procrastination could not organise their priorities and achieve academic goals. Academic procrastination was a significant problem among

2 For more information, see: BAYRAK, H.: *Türkiye İnternet Kullanım ve Sosyal Medya İstatistikleri*. Released on 6th February 2019. [online]. [2021-06-01]. Available at: <<https://dijlopedi.com/2019-turkiye-internet-kullanim-ve-sosyal-medya-istatistikleri/>>.

3 See, for example: BAANYAI, F. et al.: Problematic Social Media Use: Results from a Large-Scale Nationally Representative Adolescent Sample. In *PLoS ONE*, 2017, Vol. 12, No. 1, p. 10. [online]. [2021-06-20]. Available at: <<https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0169839>>.

4 HAYAT, A. A., KOJURI, J., AMINI, M.: Academic Procrastination of Medical Students: The Role of Internet Addiction. In *Journal of Advances in Medical Education & Professionalism*, 2020, Vol. 8, No. 2, p. 85. [online]. [2021-06-12]. Available at: <<https://doi.org/10.30476/JAMP.2020.85000.1159>>.

5 See: NWOSU, K. C. et al.: Does the Association of Social Media Use with Problematic Internet Behaviours Predict Undergraduate Students' Academic Procrastination? In *Canadian Journal of Learning and Technology*, 2020, Vol. 46, No. 1, p. 12. [online]. [2021-06-04]. Available at: <<https://files.eric.ed.gov/fulltext/EJ1267623.pdf>>.

6 See: MOHAMMADI, M., TAHRIRI, A., HASSASKHAH, J.: The Relationship between Internet Use and Academic Procrastination of EFL Learners across Years of Study. In *International Journal of Applied Linguistics and English Literature*, 2015, Vol. 4, No. 1, p. 235. [online]. [2021-06-05]. Available at: <<http://www.journals.iaac.org.au/index.php/IJALEL/article/view/1257/1247>>.

7 See: REINECKE, L. et al.: The Relationship between Trait Procrastination, Internet Use, and Psychological Functioning: Results from a Community Sample of German Adolescents. In *Frontiers in Psychology*, 2018, Vol. 9, Article No. 913, p. 1-12. [online]. [2021-06-25]. Available at: <<https://doi.org/10.3389/fpsyg.2018.00913>>.

8 LAVOIE, J. A., PYCHYL, T. A.: Cyberslacking and the Procrastination Superhighway: A Web-Based Survey of Online Procrastination, Attitudes, and Emotion. In *Social Science Computer Review*, 2001, Vol. 19, No. 4, p. 435. [online]. [2021-05-25]. Available at: <<https://doi.org/10.1177/089443930101900403>>.

9 NWOSU, K. C. et al.: Does the Association of Social Media Use with Problematic Internet Behaviours Predict Undergraduate Students' Academic Procrastination? In *Canadian Journal of Learning and Technology*, 2020, Vol. 46, No. 1, p. 15. [online]. [2021-06-04]. Available at: <<https://files.eric.ed.gov/fulltext/EJ1267623.pdf>>.

10 SENÉCAL, C., JULIEN, E., GUAY, F.: Role Conflict and Academic Procrastination: A Self-Determination Perspective. In *European Journal of Social Psychology*, 2003, Vol. 33, No. 1, p. 141. [online]. [2021-05-19]. Available at: <http://selfdeterminationtheory.org/SDT/documents/2003_SenecalJulienGuay_EJSP.pdf>.

11 KOCHANOVÁ, D., DOKTOROVÁ, D.: Detections of Context between Academic Procrastination, State Anxiety and Trait Anxiety in Adolescents. In MCGREEVY, M., RITA, R. (eds.): *CER Comparative European Research 2020: Proceedings of the 14th Biannual CER Comparative European Research Conference. Conference Proceedings*. London : SCI-EMCEE, 2020, p. 189. [online]. [2021-09-08]. Available at: <https://www.sciemcee.org/library/proceedings/cer/cer2020_proceedings02.pdf>.

12 YURAL, L., GÜNDÜZ, G. F.: The Relationship between Academic Procrastination Behaviours and Cognitive Awareness Levels of Prospective Teachers. In *Elementary Education Online*, 2019, Vol. 18, No. 1, p. 312. [online]. [2021-05-05]. Available at: <<https://ilkogretim-online.org/fulltext/218-1596797518.pdf?1667900290>>.

13 GUSTAVSON, D. E., MIYAKE, A.: Academic Procrastination and Goal Accomplishment: A Combined Experimental and Individual Differences Investigation. In *Learning and Individual Differences*, 2017, Vol. 54, p. 169. [online]. [2021-04-25]. Available at: <<https://doi.org/10.1016/j.lindif.2017.01.010>>.

university students,¹⁴ which we can observe through the increasing prevalence of academic procrastination by students. Research has shown that between 46%¹⁵ – 95%¹⁶ of students are involved in procrastination. Other research indicates that more than half of high school and university students postpone their academic tasks.¹⁷ As we can see, a significant share in the emergence of academic procrastination can have an academic degree, the age of students and gender. Some authors found that male students had a higher level of procrastination than females,¹⁸ but others proved that procrastination is a problem for both men and women.¹⁹

3 Problematic Internet Use

Nowadays, the researchers point to the negative aspect of Internet use²⁰ and highlight its questionable impact on adolescents. Problematic Internet use recognised as Internet addiction is defined by extreme or poorly controlled interest, desire or behaviour associated with Internet use that leads to fear or deterioration in behaviour, whereas social media addiction has been reported to be more common among young people and adolescents, so students are particularly vulnerable to Internet addiction.²¹ The term “online addiction” refers to addiction as a type of pathology that leads to excessive use of technology and includes many behaviours and impulse control problems such as depression or anxiety. It is a non-substance form of addiction, as the individual is addicted to activities such as the use of new information and communication tools.²² Social media addiction is often manifested as an uncontrollable urge to use social media. If the use of the Internet behaviour affects an individual's mental and physical health, damages relationships with family and friends, disrupts work or academic goals, causes economic instability or encourages crime, such use becomes problematic. Typical indicators of social media addiction include the desire to be constantly online, excessive use of social media, and the resulting negative impacts on academic and social life, such as loneliness and social isolation among young people.²³ Problematic Internet use leads to a negative quality of life in terms of health but also in terms of academic performance. In this regard, the research found that Internet-addicted students achieved more negative results in their academic duties and daily routines than non-addicted students.²⁴ The current

14 NWOSU, K. C. et al.: Does the Association of Social Media Use with Problematic Internet Behaviours Predict Undergraduate Students' Academic Procrastination? In *Canadian Journal of Learning and Technology*, 2020, Vol. 46, No. 1, p. 10. [online]. [2021-06-04]. Available at: <<https://files.eric.ed.gov/fulltext/EJ1267623.pdf>>.

15 SOLOMON, L. J., ROTHBLUM, E. D.: Academic Procrastination: Frequency and Cognitive-Behavioral Correlates. In *Journal of Counseling Psychology*, 1984, Vol. 31, No. 4, p. 505. [online]. [2021-06-18]. Available at: <<https://psycnet.apa.org/record/1985-07993-001>>.

16 VARGAS, M. A. P.: Academic Procrastination: The Case of Mexican Researchers in Psychology. In *American Journal of Education and Learning*, 2017, Vol. 2, No. 2, p. 106. [online]. [2021-06-01]. Available at: <<https://onlinesciencepublishing.com/index.php/ajel/article/view/25>>.

17 See: CAN, S., ZEREN, Ş. G.: The Role of Internet Addiction and Basic Psychological Needs in Explaining the Academic Procrastination Behaviour of Adolescents. In *Çukurova University Faculty of Education Journal*, 2019, Vol. 48, No. 2, p. 1020. [online]. [2021-06-15]. Available at: <<https://www.acarindex.com/pdf/6611-64.pdf>>.

18 HAYAT, A. A., KOJURI, J., AMINI, M.: Academic Procrastination of Medical Students: The Role of Internet Addiction. In *Journal of Advances in Medical Education & Professionalism*, 2020, Vol. 8, No. 2, p. 85. [online]. [2021-06-12]. Available at: <<https://doi.org/10.30476/JAMP.2020.85000.1159>>.

19 KOCHANOVÁ, D.: Interpohlavné a vekové rozdiely v prevalencii akademickej prokrastinácie u adolescentov. In BARANOVSKÁ, A., KOCHANOVÁ, D. (eds.): *Kondášove dni 2020*. Trnava: University of Ss. Cyril and Methodius, 2020, p. 130; GABRHELÍK, R.: *Akademická prokrastinace: Ověření sebeposuzovací škály, prevalence a příčiny prokrastinace*. [Dissertation Thesis]. Brno: Masaryk University, 2008, p. 80.

20 See: HOU, Y. et al.: Social Media Addiction: Its Impact, Mediation, and Intervention. In *Cyberpsychology: Journal of Psychosocial Research on Cyberspace*, 2019, Vol. 13, No. 1, p. 1-17. [online]. [2021-06-19]. Available at: <<https://cyberpsychology.eu/article/view/11562/10369>>.

21 HAYAT, A. A., KOJURI, J., AMINI, M.: Academic Procrastination of Medical Students: The Role of Internet Addiction. In *Journal of Advances in Medical Education & Professionalism*, 2020, Vol. 8, No. 2, p. 85. [online]. [2021-06-12]. Available at: <<https://doi.org/10.30476/JAMP.2020.85000.1159>>.

22 BENKOVIČ, J.: Novodobé nelátkové závislosti. In *Psychiatria pre prax*, 2007, Vol. 8, No. 6, p. 264. [online]. [2021-08-26]. Available at: <<https://www.solen.sk/storage/file/article/bf83257b5837c0d023cf092ca1aa4d05.pdf>>.

23 ŤZTEMUR, S.: The Mediating Role of Academic Procrastination Behaviours in the Relationship between Pre-Service Social Studies Teachers' Social Media Addiction and Academic Success. In *International Journal of Education Technology and Scientific Research*, 2020, Vol. 5, No. 11, p. 86. [online]. [2021-09-10]. Available at: <<https://www.ijetsar.com/DergiTamDetay.aspx?ID=112>>.

24 CHOU, C., HSIAO, M. C.: Internet Addiction, Usage, Gratification, and Pleasure Experience: The Taiwan College Students' Case. In *Computers & Education*, 2000, Vol. 35, No. 1, p. 70. [online]. [2021-06-06]. Available at: <<https://doi.org/10.1016/S0360>>.

study also showed that social media addiction was negatively associated with college students' mental health and academic performance.²⁵ As we can see from the research, the growing interest in social networking sites is a global issue that concerns adolescents.²⁶

4 Academic Procrastination Resulting from Problematic Internet Use

Among the biggest and most negative consequences of problematic Internet use are escapism, avoidance and distraction from duties and tasks. Students try to avoid academic tasks, using Internet applications to escape, which creates procrastination in academic activities and schedules. In most cases, this type of behaviour brings them academic failure.²⁷ Some authors noted that Internet users use online media as tools for procrastination²⁸ and other authors similarly acknowledged the association between the increasing popularity of social media and irrational procrastination.²⁹ In this regard, studies have confirmed the relationship between problematic Internet use and academic procrastination,³⁰ and also other research found a relationship between the use of *Facebook* and students' procrastination behaviour among the attitudes of high school students.³¹ We agree with experts who showed a positive correlation between social media dependence and academic procrastination³² and with experts who showed that Internet addicts use the Internet to a greater extent, resulting in behavioural problems associated with postponing important tasks. It can be said that social media addiction positively predicted academic procrastination,³³ and we can see this predictive significance of social media use when social media use becomes problematic in relation to students' procrastination.³⁴

From previous research, it is obvious that adolescents are heavy users of social media, leading to task delay.³⁵ For this reason, we consider it important to understand the associations between social media use, problematic Internet behaviours and academic procrastination. The main aim of the study is to verify the relationship between academic procrastination and problematic Internet use,³⁶ which, in this study, goes

1315(00)00019-1>.

25 JELENCHICK, L. et al.: The Problematic and Risky Internet Use Screening Scale (PRIUSS) for Adolescents and Young Adults: Scale Development and Refinement. In *Computers in Human Behavior*, 2014, Vol. 35, p. 176. [online]. [2021-07-06]. Available at: <<https://doi.org/10.1016/j.chb.2014.01.035>>.

26 VRABEC, N.: Digitálni domorodci na Slovensku: Komunikácia a nová identita mládeže v on-line prostredí. In *Communication Today*, 2010, Vol. 1, No. 1, p. 83.

27 HOLDOŠ, J.: Od používania Internetu k zneužívaniu? Desocializačné činitele Internetu vedúce k internetovej závislosti mladých ľudí. In IZRAEL, P. (ed.): *Mediá a socializácia*. Ružomberok: VERBUM, 2012, p. 51.

28 See: REINECKE, L. et al.: The Relationship between Trait Procrastination, Internet Use, and Psychological Functioning: Results from a Community Sample of German Adolescents. In *Frontiers in Psychology*, 2018, Vol. 9, Article No. 913, p. 1-12. [online]. [2021-06-25]. Available at: <<https://doi.org/10.3389/fpsyg.2018.00913>>.

29 NWOSU, K. C. et al.: Does the Association of Social Media Use with Problematic Internet Behaviours Predict Undergraduate Students' Academic Procrastination? In *Canadian Journal of Learning and Technology*, 2020, Vol. 46, No. 1, p. 15. [online]. [2021-06-04]. Available at: <<https://files.eric.ed.gov/fulltext/EJ1267623.pdf>>.

30 MOHAMMADI, M., TAHRIRI, A., HASSASKHAH, J.: The Relationship between Internet Use and Academic Procrastination of EFL Learners across Years of Study. In *International Journal of Applied Linguistics and English Literature*, 2015, Vol. 4, No. 1, p. 236. [online]. [2021-06-05]. Available at: <<http://www.journals.aiac.org.au/index.php/IJALEL/article/view/1257/1247>>.

31 DURDU, A.: *An Investigation of Social Media Addiction and Academic Procrastination of 7th and 8th Grade Students in the Secondary School*. [Master's Thesis]. Temmuz: Toros üniversitesi, 2019, p. 125.

32 GÜRÜLTÜ, E.: *Investigation of the Relation between High School Students' Social Media Addiction and Academic Procrastination Behaviour*. [Master's Thesis]. Istanbul: Marmara University, 2016, p. 92.

33 ÜZTEMUR, S.: The Mediating Role of Academic Procrastination Behaviours in the Relationship between Pre-Service Social Studies Teachers' Social Media Addiction and Academic Success. In *International Journal of Education Technology and Scientific Researches*, 2020, Vol. 5, No. 11, p. 91. [online]. [2021-09-10]. Available at: <<https://www.ijetsar.com/DergiTamDetay.aspx?ID=112>>.

34 NWOSU, K. C. et al.: Does the Association of Social Media Use with Problematic Internet Behaviours Predict Undergraduate Students' Academic Procrastination? In *Canadian Journal of Learning and Technology*, 2020, Vol. 46, No. 1, p. 18. [online]. [2021-06-04]. Available at: <<https://files.eric.ed.gov/fulltext/EJ1267623.pdf>>.

35 See: REINECKE, L. et al.: The Relationship between Trait Procrastination, Internet Use, and Psychological Functioning: Results from a Community Sample of German Adolescents. In *Frontiers in Psychology*, 2018, Vol. 9, Article No. 913, p. 1-12. [online]. [2021-06-25]. Available at: <<https://doi.org/10.3389/fpsyg.2018.00913>>.

36 MOHAMMADI, M., TAHRIRI, A., HASSASKHAH, J.: The Relationship between Internet Use and Academic Procrastination of EFL Learners across Years of Study. In *International Journal of Applied Linguistics and English Literature*, 2015, Vol. 4, No. 1, p. 238. [online]. [2021-06-05]. Available at: <<http://www.journals.aiac.org.au/index.php/IJALEL/article/view/1257/1247>>.

beyond the compulsive use that is detrimental but includes unhealthy online behaviours or antisocial Internet use.³⁷ As we can see, problematic Internet use impacts academic procrastination.³⁸ It is proved that social media addiction increases academic procrastination.³⁹ This study gives contribution to empirical evidence on problematic Internet use as a mediator of academic procrastination.⁴⁰ Based on presented theoretical knowledge, we have formulated one research question:

RQ1: How do social media affect students and their degree of academic procrastination?

5 Methodology

Research Sample

The research sample was carried out with five voluntary participants (consisting of three females and two males) aged 17 – 20 years old. Participants were selected for the study through purposive sampling. The participant's criterion of being included in the research was studying in the last year of secondary school or the first year of university. Before the semi-structured interviews with participants, we administered them a battery of questionnaires to obtain data on researched variables. They voluntarily participated in the research, filling in a battery of questionnaires in writing and an interview with the researcher. To maintain anonymity, we will only call them by their first names in the study.

Research Tools

According to the study's aims, we have chosen an adequate methodology for the implementation of research and data collection. We collected the data using the triangulation technique from different data types (observations, interviews, scales). Firstly, we used two questionnaire methods to analyse the degree of procrastination and the degree of problematic Internet use. Complete instructions were given in the header of the questionnaires, and their total completion did not require more than 10 minutes. In order to reveal in detail what the participants understand from social media addiction and what behaviours they consider as academic procrastination, we used a third method, which was a semi-structured interview that lasted approximately 15 – 30 minutes.

Procrastination Scale for Student Population – PSS

The first method used to measure academic procrastination is one of the most frequently used questionnaires to assess the degree of academic procrastination – the Procrastination Scale for Student Population (PSS). The PSS is the modification of the original General Procrastination Scale created by C.

37 SALEEM, M., OWASI, A. M., TUFAIL, M. W.: Internet Addiction: It's Impact on Procrastination of Higher Learning Students in Pakistan. In *The Sindh University Journal of Education*, 2015, Vol. 44, No. 2, p. 210. [online]. [2021-06-19]. Available at: <https://www.researchgate.net/publication/293827565_INTERNET_ADDICTION_IT'S_IMPACT_ON_PROCRASTINATION_OF_HIGHER_LEARNING_STUDENTS_IN_PAKISTAN>.

38 DURDU, A.: *An Investigation of Social Media Addiction and Academic Procrastination of 7th and 8th Grade Students in the Secondary School*. [Master's Thesis]. Temmuz: Toros üniversitesi, 2019, p. 130.

39 GÜRÜLTÜ, E.: *Investigation of the Relation between High School Students' Social Media Addiction and Academic Procrastination Behaviour*. [Master's Thesis]. Istanbul: Marmara University, 2016, p. 86.

40 ÜZTEMUR, S.: The Mediating Role of Academic Procrastination Behaviours in the Relationship between Pre-Service Social Studies Teachers' Social Media Addiction and Academic Success. In *International Journal of Education Technology and Scientific Researches*, 2020, Vol. 5, No. 11, p. 92. [online]. [2021-09-10]. Available at: <<https://www.ijetsar.com/DergiTamDetay.aspx?ID=112>>.

H. Lay in 1986.⁴¹ Lay's procrastination scale for the student population is a unidimensional self-report questionnaire in Slovak and contains 20 items. The items are evaluated on a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree) according to how appropriately each item describes their behaviour. Using this scale, we obtain information on whether the individual suffers from procrastination, and based on the value of the summary score, we obtain information on which the participant falls into three categories. Individuals who achieved 52 points and less are classified as low procrastinators, moderate procrastinators achieved from 53 to 63 points, and individuals who achieved 64 points are classified as high procrastinators.⁴² The reliability was measured using Cronbach's alpha, the scale internal consistency indicator of which was $\alpha = 0.73$, which is a sufficient rate of the scale's reliability.

The Problematic and Risky Internet Use Screening Scale – PRIUSS

Another scale we used was the Problematic and Risky Internet Use Screening Scale. The PRIUSS is a self-report questionnaire assessing problematic Internet use in adolescents and young adults aged between 16 and 24 years old. It contains 18 items evaluated on a 5-point Likert scale (1 = never, 5 = very often) according to how appropriately each item describes their Internet use over the past 6 months. In PRIUSS, problematic and risky scores of Internet use increase with an increase in the general score. A higher score means that Internet use is increasingly unhealthy, meaning that it negatively impacts the lives of adolescents and can lead to a susceptibility to pathology, such as Internet addiction.⁴³ The reliability was measured using Cronbach's alpha, which as the scale internal consistency indicator was $\alpha = 0.79$, which is a sufficient rate of the scale's reliability.

Semi-Structured Interview

The Semi-Structured Interview consists of two key topics, academic procrastination and Internet use. We decided to use this method because it allows the researcher to better identify tendencies to procrastinate or use social media where negative feelings appear. Another advantage of this method is that participants present their subjective views and opinions, regardless of socially desirable answers. In this way, new relationships and connections between variables can be discovered. The interviews were with the consent of the participants, tape-recorded first, and then transcribed and evaluated. Evaluation of information has been performed with content analysis. It is important to use qualitative methods in research, as they provide valuable results that are not achieved by conventional quantification methods.⁴⁴

6 Results

RQ1: How do social media affect students and their degree of academic procrastination?

Through content analysis, we bring the subjective view of participants on their use of social networking sites and the impact of these media on the degree of academic procrastination. We categorise the answers from the participants based on the occurrence of the influence of social media on the degree of academic

41 LAY, C. H.: At Last, My Research Article on Procrastination. In *Journal of Research in Personality*, 1986, Vol. 20, No. 4, p. 481. [online]. [2021-08-08]. Available at: <[https://doi.org/10.1016/0092-6566\(86\)90127-3](https://doi.org/10.1016/0092-6566(86)90127-3)>.

42 GABRHELIK, R.: *Akademičká procrastinace: Ověření sebeposuzovací škály, prevalence a příčiny procrastinace*. [Dissertation Thesis]. Brno : Masaryk University, 2008, p. 92.

43 JELENCHICK, L. et al.: The Problematic and Risky Internet Use Screening Scale (PRIUSS) for Adolescents and Young Adults: Scale Development and Refinement. In *Computers in Human Behavior*, 2014, Vol. 35, p. 177. [online]. [2021-07-06]. Available at: <<https://doi.org/10.1016/j.chb.2014.01.035>>.

44 STRAUSS, A., CORBINOVÁ, J.: *Základy kvalitativního výzkumu*. Boskovice : Albert, 1999, p. 89.

procrastination. In Table 1, we can see the frequency of occurrence of the preferred social networking site, the achieved score in the questionnaires, and the inclusion of the individual in the group of procrastinators. Two participants prefer to use *Instagram*, and the other three participants prefer to use *Facebook*.

Table 1: Overview of information about selected participants

Participants	Preferred Social Networking Site	Total Score PRIUSS	Total Score PSS	Degree of Procrastination
Mário	Facebook	75	85	HIGH
Barbora	Instagram	55	80	HIGH
Tatiana	Facebook	60	35	LOW
Lucia	Facebook	70	55	MODERATE
Filip	Facebook	80	85	HIGH

Source: Own processing

In the following section, we offer an exact transcript of the answers of selected participants to the question in the interview: *“Is there a specific activity for which you do not perform the assigned task?”*

Mário, 19, a graduate student at the Grammar School in Topoľčany: *“Being on FB is more important to me than homework or preparing for a test.”*

Barbora, 18, a graduate student at the Secondary Vocational School in Topoľčany: *“From the beginning, I used ICQ to relax from the task, then use FB, but now I am pretty much on Instagram, everyone is there now, especially when we have a task.”*

Tatiana, 17, a third-year student at the Hotel Academy in Nitra: *“I say I should get ready for school, but I always talk for a while and turn off Instagram, but from a while, it's almost an hour, then two and suddenly it's evening, and I'm angry with myself for not doing anything useful.”*

Lucia, 20, a first-degree student at the Faculty of Mass Media Communication, University of Ss. Cyril and Methodius in Trnava: *“When I have a difficult task ahead of me, I want to get some rest before that. I pick up the phone and see what is new. Sometimes I forget and find that I wasted a whole day watching Instagram.”*

Filip, 20, a first-degree student at the Faculty of Education, Comenius University in Bratislava: *“It happens that instead of doing a seminar paper, I look at who is doing what. Clicking on stories is less challenging than searching for literature.”*

Case Study 1

Mário is a 19-year-old student who is currently in his high school graduation year. He has difficulty making friends, and he spends most time alone; he says: *“I don't need friends, I don't want to go out, and I prefer to be at home on the computer.”* We can see that he views his computer as a 'friend'. Recently, he started playing various multiplayer computer games intensely, to the extent that it negatively affected his academic results, and started to get worse and worse grades. He spends most of his time on social media; he connects with friends from online games with whom he has never met in person. He most often uses *Facebook*, on which he has created an account, but he does not have any personal data or a photo there. Mário estimates that he spends an average of 70 hours a week on the Internet, with only 3 hours a week engaged in academic assignments. Mario's typical use of the Internet is to check-in between 3 p.m. and 5 p.m. and check out between 1 a.m. and 2 a.m. Mário's view is that he spent much time on the Internet but claims that it has nothing to do with his current academic problems. If he is disconnected, even for a short time, he is worried: *“I don't know what's going on there without me.”* We can assume that his failures are also reflected in the following statement: *“If we have to upload a project, I will quickly download something from the net and upload it.”*

Commentary

Mário achieved a high degree of procrastination related to the use of *Facebook* or playing online games. He tries to plan his academic tasks to complete them but often uses the Internet longer than planned. Mário fits into the stereotype of an Internet addict; he is an adolescent who has little to no social life and denies he has any kind of problem. Mário's primary motivation for excessive Internet use is socialising with other Internet users. We can say that Mário significantly underestimates the amount of time he spends online, and his use of the Internet has led him to fail in his academic tasks, becoming a procrastinator. There is no doubt that Mário's excessive time spent on the Internet appears to be symptomatic of academic procrastination, indicated by the high score in both questionnaires.

Case Study 2

Barbora is an 18-year-old woman in the 4th year of secondary vocational school. In describing her social life, it should be noted that Barbora lives alone with her mother, and she has a boyfriend who is 6 years older than her. She claims that she is very sociable and enjoys having fun, which is why she has many friends. *"You see, Instagram is important to me when communicating with friends."* As we can see, the Internet is very important for Barbora's life. Ever since Barbora has had a smartphone, she has been using it primarily to use social media, whereas she spends approximately 5 hours a day on social networking sites. However, despite the time spent there, she does not postpone her academic tasks. *"The worst thing is when I scroll through the posts and think about what I still have to do. Then I feel bad."* Evaluating her schedule, she says: *"Every time I go home from school, I try to make a plan to determine which subject I will learn as much as I can. I plan time until the evening, and I will include time for rest in my plan."* Barbora also includes 'scrolling' *Instagram* into the rest. She says: *"If I have a difficult test at school, I will always learn. I never even missed the deadline for submitting my work."*

Commentary

Barbora achieved a high procrastination rate, but her score in PRIUSS does not reach the limit of problematic Internet use. As in the case of Barbora, we can see that it is important for her to create a schedule so that the main priority is to achieve academic goals. However, she uses the Internet as a tool to escape academic tasks, so we can regard this as online procrastination. In this case, Barbora appears to fit the stereotype of an Internet addict even though she is a girl with a rich social life. Barbora's primary motivation for using *Instagram* excessively is to stay in touch with friends and with 'net friends'. In this case, we can see that young people use social networking sites when they must do their academic tasks, but with proper planning, this use of the Internet may not become problematic.

Case Study 3

Tatiana is 17 years old, attending the 3rd year at the hotel academy. She has little social life which involves a boyfriend and a couple of friends. On the Internet, Tatiana spends an average of 3 hours on leisure and 1 hour on active homework. From social media, she most often uses *Facebook*. She says: *"I like it the most on these social media, that if I don't want to, I don't have to write it off. I can think about everything and only then react."* She feels that sometimes her stay on social media wastes her time, which she could use more fully with her boyfriend. When describing her schedule, she may seem to have her tasks very well organised, as evidenced by the statement: *"First, I'll do things that can't wait. I usually do the less important ones later. If I only have one day to present, I can do it for 5 hours at a time."* Tatiana's own view is that she does not spend too much time on the Internet; she said: *"I'll turn it off and do what I need to do."*

Commentary

Tatiana is primarily a *Facebook* user, communicating with her classmates. She reached a low degree of procrastination. In the case of Tatiana, it is not academic procrastination, but as her Internet use postpones the writing of messages or e-mails, we can consider it procrastination. When describing her schedule, she may seem to have her tasks very well organised, claiming that she will do more important tasks first and later do less important tasks that do not require much time. When she has little time for a task, she can deliver maximum performance to complete the task. As we can see, Tatiana created a schedule, thanks to which she manages not to procrastinate and devotes enough time to academic tasks. In this case, we can see that Tatiana does not fit the stereotype of an Internet addict, and we can also say that in this case, the relationship between the use of the Internet and procrastination is not entirely clear.

Case Study 4

Another case is Lucia, a 20-year-old first-year Bachelor's student at the Faculty of Arts, University of Ss. Cyril and Methodius in Trnava. She started using the Internet more often after coming to college; she says: *"Suddenly I discovered the vast world of the Internet and its many uses and applications. Previously, I only used a computer for word processing and printing, but now I spend many hours on the Internet, where in addition to looking for information to study, I send messages full of emojis."* She described social media as a useful and important part of socialisation at the college; she says: *"We communicate with each other via messenger, and they argue about everything because we have our group based there, where we solve everything."* She also claims that excessive use of the Internet helps her cope with everyday university life. Lucia spends an average of 40 hours a week online. She claims that: *"It is difficult to live without social media now. Everyone stands there, even what they had for breakfast. It would be difficult to be without this information if everyone knows it."* Lucia has a schedule, but she often spends more time online than she planned. Lucia says she has difficulty limiting or controlling the time spent online. For this reason, she does not manage to complete her academic tasks on time. She talks about her academic tasks: *"I do every task at the last minute."*

Commentary

In the case of Lucia, we can see that a demanding period of life, such as entering university, can significantly increase the risk of Internet addiction or procrastination. Lucia uses a social networking site to 'escape' her academic assignments. The main purpose is to cope with being in a dormitory, away from home, with only a few friends. Lucia claims that the Internet has never caused her problems in her academic work, whether in high school or college. Her procrastination has reached a moderate level. As she states the relatively low number of hours spent online, compared to her high score in PRIUSS, we can assume that she significantly underestimates the amount of time she spends online.

Case Study 5

The last of the participants is Filip, a 20-year-old man who attends the 1st year of the Bachelor's studies at the Faculty of Arts, Comenius University in Bratislava. Being an only child, he was given all forms of media devices very early. His main reason for using the Internet is to communicate with people about his problems through the virtual world. Filip's lifestyle changed significantly; he began to escape from the surrounding world of reality (real friends) to the virtual unreal world of 'cyberspace'. He began to isolate himself socially, to close himself in, and because of being long-term on the Internet, he felt more and more tired, suffering from insomnia, headaches, eye pain, which was reflected in the initial problems at school. He also began to neglect his daily routine duties

(taking care of regular meals, washing, cleaning the apartment). Filip claims that he spends about 50 hours a week on the Internet and uses the Internet long into the early morning hours. When he uses the Internet, he talks about reducing the tension that comes from academic tasks. When asked what he does when he procrastinates, he answers: "I usually grab a phone and go see a discussion, you know the comments below the posts are sometimes really funny." Filip seems to be slightly saddened by the amount of time he has spent on the Internet but denies that it would cause any significant impact on his life, whether academic or personal, although it is obvious that just time spent on the Internet impoverishes him regarding real friendships.

Commentary

In the questionnaires, Filip achieved a high degree of procrastination and a high degree of problematic Internet use, and he appears to fit the young male stereotype of an Internet addict. The primary motivation for excessive Internet usage is escapism and socialising, which increased after starting the university when his lifestyle changed. He also began to escape from the real world into the virtual world. It is obvious that just the time spent on the Internet impoverishes him regarding genuine friendships in the real world. As we can see, his studies have suffered considerably as he spends so much time on the Internet, and even in this case, it was confirmed that the problematic use of the Internet is related to academic procrastination. On the other side, whereas Filip's use of the Internet causes significant problems in his personal and academic functioning, we can say that it is Internet addiction. In this case, too, it was confirmed that his difficult life situation led to increased Internet use.

7 Discussion

The study explored the causes and consequences of problematic Internet use and procrastination for students by systematic analysis of in-depth observations and interviews. Specifically, the relationship between problematic Internet use and academic procrastination was examined. The results support the studies suggesting that there is a relationship between social media addiction and academic procrastination.⁴⁵ Given the five cases examined above, it is obvious that problematic Internet use is related to academic procrastination, which means that students with a higher level of problematic Internet use are more likely to develop academic procrastination,⁴⁶ whereas these results are consistent with the results of empirical studies⁴⁷ in the related literature.⁴⁸ The answer to our research question is that as the time spent on social media increases, academic procrastination behaviours also increase. The results of the study show that social media overuse prevents adolescents from fulfilling their academic tasks. In the present qualitative study, we have clearly and holistically shown students' inclination to social media addiction and academic procrastination.

From the results, it is obvious that the Internet has become the most performed leisure activity of students,⁴⁹ which other studies have confirmed⁵⁰ and in turn, it causes students to fail to perform their academic

responsibilities and tasks.⁵¹ The fact that the Internet has become the 'heart' of an individual's life⁵² support results from this study that speaks of above-average time spent on the Internet every week. Participants reported an average of 60 hours online, regardless of gender. It is obvious that problematic Internet use is not only a problem for boys but also girls. Hou et al. claimed that social media addiction may mean more time spent online and less time spent studying,⁵³ which was also confirmed in our study. While the time spent on the Internet was on average 60 hours per week, the time spent on academic assignments was significantly lower, only 5 hours per week on average.

These results are important, as they provide evidence for the negative effects of social media addiction. Therefore, it is necessary to consider the problem of Internet addiction as a complex phenomenon occurring among young people. On the other hand, anecdotal evidence indicates that the typical 'problematic Internet user' is a teenager, usually male, only children who is socially isolated, has few social skills and no social life.⁵⁴ These factors influenced excessive computer use in the research. Our results showed a higher degree of problematic Internet use among boys, whose score in the PRIUSS questionnaire was significantly higher than among girls. However, Jelenchick et al. did not find any differences between participants based on their academic degree or gender when examined them with the PRIUSS scale.⁵⁵

The study results also reveal the extent to which social media and their excessive use prevent students from fulfilling their academic tasks. In a student's life, a task perceived as boring, difficult and unpleasant will cause them to try to avoid it.⁵⁶ On the contrary, the Internet, which provides several entertaining distractions, is characterised as a tool by which one can obtain interesting, enjoyable and entertaining experience beneficial for stress relief.⁵⁷ For this reason, the Internet is considered a disruptive factor and an activator of procrastination.⁵⁸ It explains the behaviour of people addicted to the Internet who cannot resist the appeal of online entertainment and therefore devote more time to participating in online activities, leading to further procrastination.⁵⁹

One of the important determinants of addictive behaviours is the life situation of adolescents. According to the results, Lucia and Filip began to use the Internet more when they started going to university and moved away from their parents. It means that those residing in the dormitory were more addicted than those who did not. The research found a significant difference between the students who live in the dormitory and those who do not at the level of Internet addiction. Also confirmed was the higher degree of academic procrastination between the students who live in the dormitory and those who do not. Students who live in the dormitory spend much of their time on the Internet and social media (which may be because of free, easy and cheap access to

45 CAN, S., ZEREN, Ş. G.: The Role of Internet Addiction and Basic Psychological Needs in Explaining the Academic Procrastination Behaviour of Adolescents. In *Çukurova University Faculty of Education Journal*, 2019, Vol. 48, No. 2, p. 1012. [online]. [2021-06-15]. Available at: <<https://www.acarindex.com/pdf/6611-64.pdf>>.

46 HOLDOŠ, J.: Od používania Internetu k zneužívaniu? Desocializačné činitele Internetu vedúce k internetovej závislosti mladých ľudí. In IZRAEL, P. (ed.): *Mediá a socializácia*. Ružomberok: VERBUM, 2012, p. 56.

47 MOHAMMADI, M., TAHRIRI, A., HASSASKHAH, J.: The Relationship between Internet Use and Academic Procrastination of EFL Learners across Years of Study. In *International Journal of Applied Linguistics and English Literature*, 2015, Vol. 4, No. 1, p. 236. [online]. [2021-06-05]. Available at: <<http://www.journals.aiac.org.au/index.php/IJALEL/article/view/1257/1247>>.

48 HAYAT, A. A., KOJURI, J., AMINI, M.: Academic Procrastination of Medical Students: The Role of Internet Addiction. In *Journal of Advances in Medical Education & Professionalism*, 2020, Vol. 8, No. 2, p. 86. [online]. [2021-06-12]. Available at: <<https://doi.org/10.30476/JAMP.2020.85000.1159>>.

49 BAYRAK, H.: *Türkiye İnternet Kullanım ve Sosyal Medya İstatistikleri*. Released on 6th February 2019. [online]. [2021-06-01]. Available at: <<https://dijilopedi.com/2019-turkiye-internet-kullanim-ve-sosyal-medya-istatistikleri/>>.

50 BAÄNYAI, F. et al.: Problematic Social Media Use: Results from a Large-Scale Nationally Representative Adolescent Sample. In *PLoS ONE*, 2017, Vol. 12, No. 1, p. 12. [online]. [2021-06-20]. Available at: <<https://journals.plos.org/plosone/article?id=10.1371/>

journal.pone.0169839>.

51 See: REINECKE, L. et al.: The Relationship between Trait Procrastination, Internet Use, and Psychological Functioning: Results from a Community Sample of German Adolescents. In *Frontiers in Psychology*, 2018, Vol. 9, Article No. 913, p. 1-12. [online]. [2021-06-25]. Available at: <<https://doi.org/10.3389/fpsyg.2018.00913>>.

52 ÜZTEMUR, S.: The Mediating Role of Academic Procrastination Behaviours in the Relationship between Pre-Service Social Studies Teachers' Social Media Addiction and Academic Success. In *International Journal of Education Technology and Scientific Researches*, 2020, Vol. 5, No. 11, p. 93. [online]. [2021-09-10]. Available at: <<https://www.ijetsar.com/DergiTamDetay.aspx?ID=112>>.

53 See: HOU, Y. et al.: Social Media Addiction: Its Impact, Mediation, and Intervention. In *Cyberpsychology: Journal of Psychosocial Research on Cyberspace*, 2019, Vol. 13, No. 1, p. 1-17. [online]. [2021-06-19]. Available at: <<https://cyberpsychology.eu/article/view/11562/10369>>.

54 GRIFFITHS, M.: Does Internet and Computer "Addiction" Exist? Some Case Study Evidence. In *Cyberpsychology & Behavior*, 2000, Vol. 3, No. 2, p. 215. [online]. [2021-06-15]. Available at: <http://irep.ntu.ac.uk/id/eprint/9434/1/185492_3185%20Griffiths%20Publisher.pdf>.

55 JELENCHICK, L. et al.: The Problematic and Risky Internet Use Screening Scale (PRIUSS) for Adolescents and Young Adults: Scale Development and Refinement. In *Computers in Human Behavior*, 2014, Vol. 35, p. 175. [online]. [2021-07-06]. Available at: <<https://doi.org/10.1016/j.chb.2014.01.035>>.

56 HOLDOŠ, J.: Od používania Internetu k zneužívaniu? Desocializačné činitele Internetu vedúce k internetovej závislosti mladých ľudí. In IZRAEL, P. (ed.): *Mediá a socializácia*. Ružomberok: VERBUM, 2012, p. 52.

57 LAVOIE, J. A., PYCHYL, T. A.: Cyberslacking and the Procrastination Superhighway: A Web-Based Survey of Online Procrastination, Attitudes, and Emotion. In *Social Science Computer Review*, 2001, Vol. 19, No. 4, p. 435. [online]. [2021-05-25]. Available at: <<https://doi.org/10.1177/089443930101900403>>.

58 See: REINECKE, L. et al.: The Relationship between Trait Procrastination, Internet Use, and Psychological Functioning: Results from a Community Sample of German Adolescents. In *Frontiers in Psychology*, 2018, Vol. 9, Article No. 913, p. 1-12. [online]. [2021-06-25]. Available at: <<https://doi.org/10.3389/fpsyg.2018.00913>>.

59 CHOU, C., HSIAO, M. C.: Internet Addiction, Usage, Gratification, and Pleasure Experience: The Taiwan College Students' Case. In *Computers & Education*, 2000, Vol. 35, No. 1, p. 70. [online]. [2021-06-06]. Available at: <[https://doi.org/10.1016/S0360-1315\(00\)00019-1](https://doi.org/10.1016/S0360-1315(00)00019-1)>.

the Internet); this leads to postponing their academic tasks.⁶⁰ Results in this study show that unlimited access to the Internet of all participants leads to negative outcomes for their academic performance, whereas it is likely to become a problem for high school students, not just for university students. We found that academic procrastination occurs regardless of gender⁶¹ or age,⁶² which is in line with the findings of other authors.⁶³

Social media are very attractive for young people because they are a space where a person becomes the main character and, at the same time, the director of their virtual world.⁶⁴ Another interesting result is that all the participants used the computer for social contact, even when they used the Internet to be in touch with a 'net friend'. Some people also consider a computer a 'friend' and, therefore, tend to spend much of their time on the computer or smartphone. It is proved that among young people who are addicted to the Internet, almost all their relationships are Internet-based,⁶⁵ which was also confirmed in our research. The primary reason why people set up an account on a social networking site is to make friends or keep in touch with friends.⁶⁶ As we can see in the case studies, contact and support from the social environment positively impact human health and well-being.⁶⁷ Social media are designed to enable a person to be more socially involved with low difficulty. People who have a greater need for belonging are more likely to feel lonely.⁶⁸ In the context of social media and relationships, it is necessary to say that personality variables, such as social isolation, self-confidence, optimism and many other positive emotional experiences, can help youth estimate life satisfaction.⁶⁹ The connection suggests that individuals with high social support are willing to engage in self-confidence, which can reduce their loneliness and consequently lead to high satisfaction with life, thus eliminating academic procrastination. Given that social media provide rich opportunities for social comparison, one of the more important personality traits would be to focus on social comparison. Kohútová, Madro, Lauterbachová and Horská examined the risky behaviour of young people, which according to their findings, is influenced by the relationship with parents and peers.⁷⁰ They focused mainly on the correlation between parents' relationships with adolescent children and their risky behaviour in the virtual world, which is the result of adolescent alienation from their parents, meaning that negative parents' relationships with children have a negative impact on online behaviour. Based on this fact, it is possible to conclude that the emotional state of the individual largely determines the emergence of procrastination and dependence on social media.⁷¹ Social

networking sites affect those who use them and radically change the nature of family relationships, friendships and everyday activities.⁷²

There can be several reasons for the emergence of Internet addiction, which seem to be consistent with the case studies above. First, it is communication with people who share common interests, while communication costs are low.⁷³ It is in line with another research according to which social media represent an ideal place for interactions with other people who have similar interests.⁷⁴ Further, the Internet provides people with contact with other people they would never have met under other circumstances, but they can also be in contact with close friends. Using social media also gives people a sense of modernity that can boost self-esteem. For this reason, we can debate when an appropriate intervention is needed to reduce Internet addiction.

8 Conclusions

The study can be useful for teachers and psychologists in the field of education, as we consider prevention and intervention in this area to be essential. It can also have a positive meaning for parents as well as for the students themselves. Many of us today may feel that social media and hypermodern technologies have taken control of us. The introduction of a prevention programme would help to reduce this problem. The project would be implemented by psychologists attending schools and informing students about the dangers of the impact of excessive use of social media and smartphones on mental health. During the lesson, they would list several case reports on this issue as intervention appears to be an effective means of reducing Internet addiction and improving their mental health⁷⁵ and academic efficiency.⁷⁶ In future research, we suggest using intervention of Internet addiction, which has a positive effect on reducing student procrastination.

The present research was a qualitative research design in which 5 participants were enrolled to complete a self-reported questionnaire and a semi-structured interview. We recommend using a quantitative research design with a large research sample and finding the prevalence of Internet addiction and academic procrastination in future research.

We proved that social media addiction increases academic procrastination behaviours, but on the other hand, it is not the only cause of academic procrastination behaviours. We recommend focusing on other variables in future research, which can potentially increase the degree of academic procrastination behaviours.

The fact that social media are used by adolescents daily and that the number of Internet users will continue to increase over the coming years, despite knowledge and criticism of their harmful effects, suggests that they have an important and irreplaceable place in an individual's life.⁷⁷ The issue of dependence on social media and procrastination is an area for development that should be of particular interest to those involved in clinical health issues, and we hope that our results will draw attention to the negative aspects of social media. Based on our findings, it can be stated that the situation regarding social media and the issue of their use are critical today, as many young people use mobile phones daily, as today's times explicitly require. Today, it is possible to notice various emerging mental problems, from fatigue to more serious diagnoses.

60 HAYAT, A. A., KOJURI, J., AMINI, M.: Academic Procrastination of Medical Students: The Role of Internet Addiction. In *Journal of Advances in Medical Education & Professionalism*, 2020, Vol. 8, No. 2, p. 84. [online]. [2021-06-12]. Available at: <<https://doi.org/10.30476/JAMP.2020.85000.1159>>.

61 KOCHANOVÁ, D.: Interpohlavné a vekové rozdiely v prevalencii akademickej prokrastinácie u adolescentov. In BARANOVKÁ, A., KOCHANOVÁ, D. (eds.): *Kondárove dni 2020*. Trnava : University of Ss. Cyril and Methodius, 2020, p. 136.

62 GABRHĚLÍK, R.: *Akademická prokrastinace: Ověření sebeposuzovací škály, prevalence a příčiny prokrastinace*. [Dissertation Thesis]. Brno : Masaryk University, 2008, p. 86.

63 SOLOMON, L. J., ROTHBLUM, E. D.: Academic Procrastination: Frequency and Cognitive-Behavioral Correlates. In *Journal of Counseling Psychology*, 1984, Vol. 31, No. 4, p. 505. [online]. [2021-06-18]. Available at: <<https://psycnet.apa.org/record/1985-07993-001>>.

64 KONG, F., YOU, X.: Loneliness and Self-Esteem as Mediators between Social Support and Life Satisfaction in Late Adolescence. In *Soc Indic Res*, 2013, Vol. 110, p. 273. [online]. [2021-06-05]. Available at: <<https://doi.org/10.1007/s11205-011-9930-6>>.

65 GRIFFITHS, M.: Does Internet and Computer "Addiction" Exist? Some Case Study Evidence. In *Cyberpsychology & Behavior*, 2000, Vol. 3, No. 2, p. 213. [online]. [2021-06-15]. Available at: <http://irep.ntu.ac.uk/id/eprint/9434/1/185492_3185%20Griffiths%20Publisher.pdf>.

66 TOMCZYK, L., SELMANAGIC-LIZDE, E.: Fear of Missing Out (FOMO) among Youth in Bosnia and Herzegovina – Scale and Selected Mechanisms. In *Children and Youth Services Review*, 2018, Vol. 88, p. 542. [online]. [2021-06-20]. Available at: <<https://doi.org/10.1016/j.chilyouth.2018.03.048>>.

67 KONG, F., YOU, X.: Loneliness and Self-Esteem as Mediators between Social Support and Life Satisfaction in Late Adolescence. In *Soc Indic Res*, 2013, Vol. 110, p. 273. [online]. [2021-06-05]. Available at: <<https://doi.org/10.1007/s11205-011-9930-6>>.

68 PITNER, R.: *Vplyv nesmelosti, neuroticizmu, osamelosti a sociálnej opory na spôsob používania Facebooku*. [Master's Thesis]. Brno : Masaryk University, 2013, p. 101.

69 KONG, F., YOU, X.: Loneliness and Self-Esteem as Mediators between Social Support and Life Satisfaction in Late Adolescence. In *Soc Indic Res*, 2013, Vol. 110, p. 274. [online]. [2021-06-05]. Available at: <<https://doi.org/10.1007/s11205-011-9930-6>>.

70 KOHÚTOVÁ, V. et al.: Tínedžeri v online priestore: Môže bezpečný vzťah s rodičmi dopomôcť k bezpečnému online správaniu? In CAJDOŠOVÁ, E., MADRO, M., VALIHOROVÁ, M. (eds.): *Duševné zdravie a wellbeing virtuálnej generácie*. Bratislava : IPčko, 2018, p. 230. [online]. [2021-08-14]. Available at: <https://www.researchgate.net/profile/Veronika-Kohutova/publication/333338988_Teenagers-online-Is-secure-parent-child-relationship-helpful-for-secure-online-behavior/links/5ce7948b92851c4eabba3319/Teenagers-online-Is-secure-parent-child-relationship-helpful-for-secure-online-behavior.pdf>.

71 KARTOL, A., GÜNDOĞAN, S.: The Mediating Role of Emotional Intelligence in the Relationship between the Fear of Missing Out in Social Environments (Fomo) and Depression. In *European Journal of Education Studies*, 2020, Vol. 6, No. 11, p. 9. [online]. [2021-07-05]. Available at: <<http://doi.org/10.5281/zenodo.3613904>>.

72 HAIDT, J., ALLEN, N.: Digital Technology under Scrutiny. In *Nature*, 2020, Vol. 578, No. 7794, p. 227. [online]. [2021-06-23]. Available at: <<https://media.nature.com/original/magazine-assets/d41586-020-00296-x/d41586-020-00296-x.pdf>>.

73 GRIFFITHS, M.: Does Internet and Computer "Addiction" Exist? Some Case Study Evidence. In *Cyberpsychology & Behavior*, 2000, Vol. 3, No. 2, p. 212. [online]. [2021-06-15]. Available at: <http://irep.ntu.ac.uk/id/eprint/9434/1/185492_3185%20Griffiths%20Publisher.pdf>.

74 For more information, see: JANKOVÁ, M.: *Význam Internetu a sociálnych sietí v živote žiakov základných a stredných škôl*. Bratislava : Centrum vedecko-technických informácií SR, 2020.

75 TOMCZYK, L., SELMANAGIC-LIZDE, E.: Fear of Missing Out (FOMO) among Youth in Bosnia and Herzegovina – Scale and Selected Mechanisms. In *Children and Youth Services Review*, 2018, Vol. 88, p. 547. [online]. [2021-06-20]. Available at: <<https://doi.org/10.1016/j.chilyouth.2018.03.048>>.

76 See: HOU, Y. et al.: Social Media Addiction: Its Impact, Mediation, and Intervention. In *Cyberpsychology: Journal of Psychosocial Research on Cyberspace*, 2019, Vol. 13, No. 1, p. 1-17. [online]. [2021-06-19]. Available at: <<https://cyberpsychology.eu/article/view/11562/10369>>.

77 ÜZTEMUR, S.: The Mediating Role of Academic Procrastination Behaviours in the Relationship between Pre-Service Social Studies Teachers' Social Media Addiction and Academic Success. In *International Journal of Education Technology and Scientific Researches*, 2020, Vol. 5, No. 11, p. 94. [online]. [2021-09-10]. Available at: <<https://www.ijetsar.com/DergiTamDetay.aspx?ID=112>>.

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BIBLIOGRAPHY:

- BAYRAK, H.: *Türkiye İnternet Kullanım ve Sosyal Medya İstatistikleri*. Released on 6th February 2019. [online]. [2021-06-01]. Available at: <<https://dijlopedi.com/2019-turkiye-internet-kullanim-ve-sosyal-medya-istatistikleri/>>.
- BAĀNYAI, F. et al.: Problematic Social Media Use: Results from a Large-Scale Nationally Representative Adolescent Sample. In *PLoS ONE*, 2017, Vol. 12, No. 1, p. 1-13. ISSN 1932-6203. [online]. [2021-06-20]. Available at: <<https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0169839>>.
- BENKOVIČ, J.: Novodobé nelátkové závislosti. In *Psychiatria pre prax*, 2007, Vol. 8, No. 6, p. 263-266. ISSN 1339-4258. [online]. [2021-08-26]. Available at: <<https://www.solen.sk/storage/file/article/bff8257b5837c0d023cf092ca1aa4d05.pdf>>.
- CAN, S., ZEREN, Ş. G.: The Role of Internet Addiction and Basic Psychological Needs in Explaining the Academic Procrastination Behaviour of Adolescents. In *Çukurova University Faculty of Education Journal*, 2019, Vol. 48, No. 2, p. 1012-1040. ISSN 1302-9967. [online]. [2021-06-15]. Available at: <<https://www.acarindex.com/pdf/6611-64.pdf>>.
- DURDU, A.: *An Investigation of Social Media Addiction and Academic Procrastination of 7th and 8th Grade Students in the Secondary School*. [Master's Thesis]. Temmuz : Toros üniversitesi, 2019.
- GABRHELÍK, R.: *Akademická prokrastinace: Ověření sebeposuzovací škály, prevalence a příčiny prokrastinace*. [Dissertation Thesis]. Brno : Masaryk University, 2008.
- GUSTAVSON, D. E., MIYAKE, A.: Academic Procrastination and Goal Accomplishment: A Combined Experimental and Individual Differences Investigation. In *Learning and Individual Differences*, 2017, Vol. 54, p. 160-172. ISSN 1041-6080. [online]. [2021-04-25]. Available at: <<https://doi.org/10.1016/j.lindif.2017.01.010>>.
- GÜRÜLTÜ, E.: *Investigation of the Relation between High School Students' Social Media Addiction and Academic Procrastination Behaviour*. [Master's Thesis]. Istanbul : Marmara University, 2016.
- GRIFFITHS, M.: Does Internet and Computer "Addiction" Exist? Some Case Study Evidence. In *Cyberpsychology & Behavior*, 2000, Vol. 3, No. 2, p. 211-218. ISSN 1557-8364. [online]. [2021-06-15]. Available at: <http://irep.ntu.ac.uk/id/eprint/9434/1/185492_3185%20Griffiths%20Publisher.pdf>.
- HAIDT, J., ALLEN, N.: Digital Technology under Scrutiny. In *Nature*, 2020, Vol. 578, No. 7794, p. 226-227. ISSN 1476-4687. [online]. [2021-06-23]. Available at: <<https://media.nature.com/original/magazine-assets/d41586-020-00296-x/d41586-020-00296-x.pdf>>.
- HAYAT, A. A., KOJURLI, J., AMINI, M.: Academic Procrastination of Medical Students: The Role of Internet Addiction. In *Journal of Advances in Medical Education & Professionalism*, 2020, Vol. 8, No. 2, p. 83-89. ISSN 3242-6392. [online]. [2021-06-12]. Available at: <<https://doi.org/10.30476/JAMP.2020.85000.1159>>.
- HOLDOŠ, J.: Od používania Internetu k zneužívaniu? Desocializačné činitele Internetu vedúce k Internetovej závislosti mladých ľudí. In IZRAEL, P. (ed.): *Médiá a socializácia*. Ružomberok : VERBUM, 2012, p. 43-66.
- HOU, Y. et al.: Social Media Addiction: Its Impact, Mediation, and Intervention. In *Cyberpsychology: Journal of Psychosocial Research on Cyberspace*, 2019, Vol. 13, No. 1, p. 1-17. ISSN 1802-7962. [online]. [2021-06-19]. Available at: <<https://cyberpsychology.eu/article/view/11562/10369>>.
- CHOU, C., HSIAO, M. C.: Internet Addiction, Usage, Gratification, and Pleasure Experience: The Taiwan College Students' Case. In *Computers & Education*, 2000, Vol. 35, No. 1, p. 65-80. ISSN 0360-131. [online]. [2021-06-06]. Available at: <[https://doi.org/10.1016/S0360-1315\(00\)00019-1](https://doi.org/10.1016/S0360-1315(00)00019-1)>.
- JANKOVÁ, M.: *Význam Internetu a sociálnych sietí v živote žiakov základných a stredných škôl*. Bratislava : Centrum vedecko-technických informácií SR, 2020.
- JELENCHICK, L. et al.: The Problematic and Risky Internet Use Screening Scale (PRIUSS) for Adolescents and Young Adults: Scale Development and Refinement. In *Computers in Human Behavior*, 2014, Vol. 35, p. 171-178. ISSN 0747-5632. [online]. [2021-07-06]. Available at: <<https://doi.org/10.1016/j.chb.2014.01.035>>.
- KARTOL, A., GÜNDOĞAN, S.: The Mediating Role of Emotional Intelligence in the Relationship between the Fear of Missing Out in Social Environments (Fomo) and Depression. In *European Journal of Education Studies*, 2020, Vol. 6, No. 11, p. 1-16. ISSN 2501-1111. [online]. [2021-07-05]. Available at: <<http://doi.org/10.5281/zenodo.3613904>>.

- KOHÚTOVÁ, V. et al.: Tínedžeri v online priestore: Môže bezpečný vzťah s rodičmi dopomôcť k bezpečnému online správaniu? In GAJDOŠOVÁ, E., MADRO, M., VALIHOŘOVÁ, M. (eds.): *Duševné zdravie a wellbeing virtuálnej generácie*. Bratislava : IPčko, 2018, p. 226-233. [online]. [2021-08-14]. Available at: <https://www.researchgate.net/profile/Veronika-Kohutova/publication/333338988_Teenagers_online_Is_secure_parent-child_relationship_helpful_for_secure_online_behavior/links/5ce7948b92851c4eabba3319/Tenagers-online-Is-secure-parent-child-relationship-helpful-for-secure-online-behavior.pdf>.
- KOCHANOVÁ, D., DOKTOROVÁ, D.: Detections of Context between Academic Procrastination, State Anxiety and Trait Anxiety in Adolescents. In MCGREEVY, M., RITA, R. (eds.): *CER Comparative European Research 2020: Proceedings of the 14th Biannual CER Comparative European Research Conference. Conference Proceedings*. London : SCI-EMCEE, 2020, p. 187-191. [online]. [2021-09-08]. Available at: <https://www.sciemcee.org/library/proceedings/cer/cer2020_proceedings02.pdf>.
- KOCHANOVÁ, D.: Interpohlavné a vekové rozdiely v prevalencii akademickej prokrastinácie u adolescentov. In BARANOVKÁ, A., KOCHANOVÁ, D. (eds.): *Kondášove dni 2020*. Trnava : University of Ss. Cyril and Methodius, 2020, p. 128-137.
- KONG, F., YOU, X.: Loneliness and Self-Esteem as Mediators between Social Support and Life Satisfaction in Late Adolescence. In *Soc Indic Res*, 2013, Vol. 110, p. 271-279. ISSN 1573-0921. [online]. [2021-06-05]. Available at: <<https://doi.org/10.1007/s11205-011-9930-6>>.
- LAVOIE, J. A., PYCHYL, T. A.: Cyberslacking and the Procrastination Superhighway: A Web-Based Survey of Online Procrastination, Attitudes, and Emotion. In *Social Science Computer Review*, 2001, Vol. 19, No. 4, p. 431-444. ISSN 0894-4393. [online]. [2021-05-25]. Available at: <<https://doi.org/10.1177/089443930101900403>>.
- LAY, C. H.: At Last, My Research Article on Procrastination. In *Journal of Research in Personality*, 1986, Vol. 20, No. 4, p. 474-495. ISSN 0092-6566. [online]. [2021-08-08]. Available at: <[https://doi.org/10.1016/0092-6566\(86\)90127-3](https://doi.org/10.1016/0092-6566(86)90127-3)>.
- MOHAMMADI, M., TAHRIRI, A., HASSASKHAH, J.: The Relationship between Internet Use and Academic Procrastination of EFL Learners across Years of Study. In *International Journal of Applied Linguistics and English Literature*, 2015, Vol. 4, No. 1, p. 231-241. ISSN 2200-3452. [online]. [2021-06-05]. Available at: <<http://www.journals.aiac.org.au/index.php/IJALEL/article/view/1257/1247>>.
- NWOSU, K. C. et al.: Does the Association of Social Media Use with Problematic Internet Behaviours Predict Undergraduate Students' Academic Procrastination? In *Canadian Journal of Learning and Technology*, 2020, Vol. 46, No. 1, p. 1-22. ISSN 1499-6677. [online]. [2021-06-04]. Available at: <<https://files.eric.ed.gov/fulltext/EJ1267623.pdf>>.
- PITTLNER, R.: *Vplyv nesmelosti, neuroticizmu, osamelosti a sociálnej opory na spôsob používania Facebooku*. [Master's Thesis]. Brno : Masaryk University, 2013.
- REINECKE, L. et al.: The Relationship between Trait Procrastination, Internet Use, and Psychological Functioning: Results from a Community Sample of German Adolescents. In *Frontiers in Psychology*, 2018, Vol. 9, Article 913, p. 1-12. ISSN 1664-1078. [online]. [2021-06-25]. Available at: <<https://doi.org/10.3389/fpsyg.2018.00913>>.
- SALEEM, M., OWAISI, A. M., TUFAIL, M. W.: Internet Addiction: It's Impact on Procrastination of Higher Learning Students in Pakistan. In *The Sindh University Journal of Education*, 2015, Vol. 44, No. 2, p. 205-230. ISSN 0560-0871. [online]. [2021-06-19]. Available at: <https://www.researchgate.net/publication/293827565_INTERNET_ADDICTION_IT'S_IMPACT_ON_PROCRASTINATION_OF_HIGHER_LEARNING_STUDENTS_IN_PAKISTAN>.
- SENÉCAL, C., JULIEN, E., GUAY, F.: Role Conflict and Academic Procrastination: A Self-Determination Perspective. In *European Journal of Social Psychology*, 2003, Vol. 33, No. 1, p. 135-145. ISSN 1099-0992. [online]. [2021-05-19]. Available at: <http://selfdeterminationtheory.org/SDT/documents/2003_SenecalJulienGuay_EJSP.pdf>.
- SOLOMON, L. J., ROTHBLUM, E. D.: Academic Procrastination: Frequency and Cognitive-Behavioral Correlates. In *Journal of Counseling Psychology*, 1984, Vol. 31, No. 4, p. 503-809. ISSN 1939-2168. [online]. [2021-06-18]. Available at: <<https://psycnet.apa.org/record/1985-07993-001>>.
- STRAUSS, A., CORBINOVÁ, J.: *Základy kvalitatívneho výzkumu*. Boskovice : Albert, 1999.
- TOMCZYK, L., SELMANAGIC-LIZDE, E.: Fear of Missing Out (FOMO) among Youth in Bosnia and Herzegovina – Scale and Selected Mechanisms. In *Children and Youth Services Review*, 2018, Vol. 88, p. 541-549. ISSN 0190-7409. [online]. [2021-06-20]. Available at: <<https://doi.org/10.1016/j.childyouth.2018.03.048>>.

ÜZTEMUR, S.: The Mediating Role of Academic Procrastination Behaviours in the Relationship between Pre-Service Social Studies Teachers' Social Media Addiction and Academic Success. In *International Journal of Education Technology and Scientific Researches*, 2020, Vol. 5, No. 11, p. 63-101. ISSN 2587-0238. [online]. [2021-09-10]. Available at: <<https://www.ijetsar.com/DergiTamDetay.aspx?ID=112>>.

VARGAS, M. A. P.: Academic Procrastination: The Case of Mexican Researchers in Psychology. In *American Journal of Education and Learning*, 2017, Vol. 2, No. 2, p. 103-120. ISSN 2518-6647. [online]. [2021-06-01]. Available at: <<https://onlinesciencepublishing.com/index.php/ajel/article/view/25>>.

VRABEC, N.: Digitálni domorodci na Slovensku: Komunikácia a nová identita mládeže v on-line prostredí. In *Communication Today*, 2010, Vol. 1, No. 1, p. 82-92. ISSN 1338-130X.

VURAL, L., GÜNDÜZ, G. F.: The Relationship between Academic Procrastination Behaviours and Cognitive Awareness Levels of Prospective Teachers. In *Elementary Education Online*, 2019, Vol. 18, No. 1, p. 307-330. ISSN 1305-3515. [online]. [2021-05-05]. Available at: <<https://ilkogretim-online.org/fulltext/218-1596797518.pdf?1667900290>>.

