

DIGITAL ADDICTION AND THE ACADEMIC PERFORMANCE AMONG UNIVERSITIES' STUDENTS

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Abstract

Digital addiction has been called digital dependency and digital compulsivity. By any name, it is a compulsive behaviour that completely dominates the addict's life. Digital addicts make the digital technology a priority more important than family, friends, and work. The digital technology becomes the organizing principle of addicts' lives. The purpose of this study is to identify the relationship between Digital Addiction (DA) and academic performance among college students in public and private university. This study also identified the differences in digital addiction in terms of gender. The statistical techniques frequency and percentage are used to identify the patterns of using the Internet; t-test and one-way ANOVA is used to examine the differences in DA in terms of demographic factors. Pearson correlation technique will also be used to determine the relationship between DA and academic performance. This study helps to determine the level of digital addiction among college student and how its impacts their academic performance.

Keywords: Academic performance, digital addiction, internet, public universities

INTRODUCTION

The Internet has become an integral part of almost every college student's daily routine, and majority of them seem to benefit from use of the Internet to do research and communicate with faculty and classmates (Jones, Johnson-Yale, Perez & Schuler, 2007 as cited in O'Brien, 2011). According to Kesici and Tunc (2018) addiction is defined as impulse dependent on a habit of a certain activity or substance use though it has destructive effects on the physical, social, emotional, and mental health of

the individual as well as his/her financial situation long years (Young, Yue & Ying, 2011). Addiction is classified in two ways. These are drug addiction and behavioral addiction. The mental, behavioral, and psychological problems observed in the individual depending on the use of such substances as alcohol and drugs are defined as drug addiction. The addiction in which the pathological problems (TV, gambling, game, and the Internet) seen in drug addiction without being dependent on any substance are observed is defined as behavioral addiction (Kir & Sulak, 2014; Gununc & Kayri., 2010; You, Kim & Lee, 2017). There are six criteria to consider a behavior as an addiction.

- Salience: That a certain action becomes vital in terms of life.
- Mood modification: That this action affects a person's mood.
- Tolerance: The increase in the amount of the action to show the same effect on the person.
- Withdrawal: That unpleasant emotions or physical symptoms are seen when the action does not continue or stops immediately.
- Conflict: The conflict that a person experiences as a result of the dilemma between him/her and the people around him/her.
- Relapse: That a certain action tends to occur again after the avoidance or control lasting long years.

The internet addiction among students should be taken serious consideration before it becomes problematic. The responsibility of Parents and educators assessing the possibility of addiction among their children and students should be emphasized. Psychological strategies like motivational interviewing for treating addicts have to be developed exclusively for Internet addiction.

Digital addiction specifically the Internet addiction has not yet been recognised as a clinical condition in the Diagnostic and Statistical Manual of Mental Disorders (DSM-V, latest revision on 2013) published by the American Psychological Association. However, internet addiction is a problem of modern societies and many studies (Kuss et al., 2013a; Landers and Lounsbury, 2006; Engelberg and Sjöberg, 2004; Griffiths, 2000a, 2000b, 2000c as cited in Kakaraki, Tselios, & Katsanos, C, 2017) have considered this issue, mainly aiming to identify its causes, symptoms, and effects.

Researchers have not yet examined how the use of digital technologies might relate to academic performance. This study investigated the specific ways in which digital technologies and other Internet use could affect student performance in college courses by asking participants about factors including attendance, procrastination, distraction, time spent studying, access to technology, and use of the Internet for research purposes. More studies of students' attitudes toward the digital technologies and its impact on societal life is imperative to ensure societal harmony and happiness. This study is specifically designed to learn more about students' perceptions of the academic impact of their digital technologies and other Internet use.

LITERATURE REVIEW

Internet use plays an integral part in everyone's daily lives, especially in the lives of college students as they use Internet for social interaction, entertainment and for education. Powerful technology growth has made Internet use, the most popular recreation and academic activities for college students. Internet addiction leads to social and psychological problems such as depression, loneliness, low self-esteem and satisfaction of life and other mental health problems and greater impact on them academic (Subhashini & Praveen, 2018). The objective of this study is to determine the relationship between internet and depression and to find out the impact of gender in internet addiction.

Technology and the Internet use particularly by college students have been associated with more frequent communication with friends and family members (Clark, Frith, & Demi, 2004; Howard, Rainie, & Jones, 2001). According to numerous researches, the main use of the Internet for college students is interpersonal communication through email, instant messaging, and chat programs (Hampton & Wellman, 2001; Howard et al., 2001; Kraut et al., 1998; McKenna and Bargh, 2000; Jones, 2002). Even though most people agreed that the advantages of the Internet as healthy

productive activities such as students can catch up the opportunity by surfing websites, engaging in chat-room, excellent tool for the research and so on (Young, 1996b). However, many students fall behind in their studies due to excessive investments in online relationships, which are called internet addiction (Hansen, 2002). According to the survey conducted in 2009 by American College Health Association-National College Health Assessment (ACHA-NCHA), college students ranked the Internet use in the “Health Impediments to Learning”. 19.7% of the college students reported that their internet use had negative impacts on their previous-year academic results (ACHA-NCHA, 2009 as cited in Najmi Hayati Usman et al., 2014). Consequently, students encountered obstacles in their studies, sleep (Anderson, 2001; Nalwa and Anand, 2003), and completing their assignments as well. This problem can also influence their academic performance indirectly. Many studies have claimed that people may use the Internet addictively and that this can cause harmful effects on individuals, academic problems, changing their social behavior, habits and abilities in a negative way (Young, 1996; Scherer, 1997; Kraut et al., 2002; Kubey et al., 2001; Nalwa & , 2003).

The term internet addiction was proposed by Goldberg (1995) for pathological compulsive internet use (Ranganatha & Usha, 2017). It is known by different terms such as pathological internet use, Problematic internet use, compulsive internet use and internet overuse in the literature.⁷ Diagnostic and statistical manual of mental disorders fifth edition defines “internet addiction disorder as a pattern of excessive and prolonged Internet gaming that results in a cluster of cognitive and behavioural symptoms, including progressive loss of control over gaming, tolerance, and withdrawal symptoms, analogous to the symptoms of substance use disorders”.⁹ Similar to other addictions, those suffering from internet addiction use the delusionary world to communicate with real people through the Internet, as a substitution for real-life human connection, which they are unable to achieve normally (Suresh, 2016).

In spite of the fact that the Internet could contribute a lot to students’ learning, it is vital to scrutinize students’ digital addiction and its impacts towards their academic performances. Due to the mentioned consequences the effect of students’ internet usage on their academic performance need to be addressed. Hence, the purpose of this study is to focus on the college students’ internet use in public universities, and its impacts on academic performance.

Internet Use: Theories and Models

Grohol’s Model

According to Grohol (1999), “an alternative theory as to why people use the internet to a great extent is a very plausible idea. The behaviours we are observing are phasic”. This theory encompasses three main stages: enchantment/obsession, disillusionment, and reaching balance. The first stage named enchantment/obsession usually occurs when the individual is new in activity online. Many of the addicts need to seek other people’s help in order to progress faster to the second stage called disillusionment in which the individual often has to become uninterested in the activity they engaged in. In the third stage called balance, the balance symbolizes a normal usage of the internet which is reached at a different period by everyone and the phases can still be recycled if the individual finds another interesting new activity. As Grohol (1999) argues, once new activities are discovered, an existing user might have much easier time to successfully navigate through these stages and hence, reach the balance (stage three) more quickly than a new internet user does.

In this respect, Walther (1999) in agreement with Roberts, Smith, and Pollack (1996), assumed that online chat activity is also phasic; first, are enchanted by the activity (known as obsession) and then followed by disillusionment with chatting and a decline in usage, and, finally, a balance is reached where the level of chat activity is normalized (Najmi Hayati Usman et al., 2014).

Hypothesis

H1 : There is no significant impacts of digital addiction towards universities’ students academic performance.

H2 : There is no significant difference in digital addiction between male and female students.

Research Methodology

This study was undertaken to investigate the connection between internet addiction and academic performance among universities' students.

Therefore, correlational research is adopted as the research design. This method describes the relationship between two variables. According to Sekaran & Bougie (2013), correlational research is conducted when the researcher is keen on depicting the factors that are related to the issue.

According to Crossman (2011), the unit of analysis refers to the major entity that is analysed in the study. Based on another assertion by Sekaran & Bougie (2013), the unit of analysis refers to the level of aggregation of the data collection during the subsequent data analysis stage. Hence, the unit of analysis that was used in this study is individual that refers to universities' students addicted to internet. Their individual responses on the studied variables were used to test and confirm the hypothesized relationships in the study.

A total of 128 usable questionnaire were analysed for this study. The main instrument used in this study was questionnaire, which had been adapted and modified from previous studies. The questionnaire was specifically designed to match with the nature of the research and to answer the research questions of the study. The questionnaire was personally distributed to all respondents.

Results and Discussion

Respondents' Profiles

A total of 400 sets of the questionnaire were distributed to public universities' students in Malaysia who actively and addicted to the used of internet. A total of 128 usable were analyzed as shown in Table 1.

Table 1 Respondents' Profiles

Demographic Variable	Frequency	Percentage(%)
Gender		
Male	32	25
Female	96	75
Education Level		
Diploma	5	3.9
Bachelor Degree	110	85.9
Master Degree	11	8.6
PhD	2	1.6
Marital Status		
Single	120	93.75
Married	8	6.25
Field of Study		
Arts and Humanities	13	10.2
Social Sciences	96	75.0
Science and Technology	12	9.4
Medical	1	0.8
Others	1	0.8
University		
UM	17	13.4
UUM	10	7.9
UKM	6	4.7
UiTM	87	68.5
UMP	2	1.6
UNIMAS	1	0.8
UPM	3	2.4
Others	1	0.8

The reliability analysis was conducted by computing the Cronbach’s alpha for each measure. The analysis indicates the stability and consistency of the instrument measure a concept and helps to assess the goodness of a measure (Sekaran, 2006). Nunally (1978) indicated that reliability at over 0.7 is considered fairly high. This is supported by Cuieford (1965) that suggested a Cronbach’s alpha value over 0.7 amounts to high reliability and any value between 0.7 and 0.6 is acceptable and lowest acceptability is 0.5. Any value below 0.5 should be rejected. Based on the Table 2 below, all variable is reliable with value more than 0.5.

Table 2 Reliability Analysis

Variables	No of Items	Cronbach’s Alpha Value
Overuse	5	0.705
Non Restraint	3	0.843
Inhibiting the Flow of Life	4	0.782
Emotional State	4	0.682
Dependence	3	0.662

The level of digital addiction among students in public universities can be determined by their dependence towards the digital devices. The mean level for dependence in this study shown that most of the respondents are skewed towards being dependent to their mobile devices (mean level = 3.79) as illustrated in Table 3. This study is supported by Rashid, Aziz, Rahman, Saad and Ahmad (2020) in a study towards secondary school students and found out that the students have their own reasons to that make them dependence on mobile phone and it makes them addicted and cannot live without their mobile phone.

Table 3 Level of Digital Addiction

Variable	Mean	Std. Deviation
Overuse	3.27	0.75026
Non Restraint	2.86	0.98961
Inhibity the Flow of Life	2.56	0.92590
Emotional State	2.94	0.76942
Dependence	3.79	0.80448

Based on Table 4 below, the model explains 26 percent variance of digital addiction among universities students towards their academic performance. The final model showed that only two variables, overuse ($\beta = .289, t = 3.238; p < 0.05$) and emotional state ($\beta = .330, t = 3.952; p < 0.001$) were the predictors towards digital addiction. The result is supported by Rathi and Budhiraja (2019) on the study towards undergraduate students and the effects of social networking sites on the academic performance which found out there is a positive correlation between the use of social media networking and the undergraduate students academic performance.

Table 4 Multiple Regression

Model	Variables	Unstandardized Coefficients		Std. Error	Standardize Coefficient Beta	t	Sig.
Digital Addiction	(Constant)	1.698	.325			5.224	.000
	Overuse	.310	.096	.289		3.238	.002
	Non Restraint	.066	.076	.081		.872	.385
	Inhibity the Flow of Life	-.048	.072	-.056		-.667	.506
	Emotional State	.345	.087	.330		3.952	.000

Conclusion and Future Research

In the long run, excessive Internet use may affect students' attendance to class, academic performance, and social relationships. Prior studies have shown that the Internet can distract students from their work (Chang & Law, 2008; Tsai et al., 2008; Nalwa & Anand, 2003; Young, 1996). In addition, lack of social skills with real human-beings can be seen as another problem if the students continued to excessively engage with the Internet, especially for people involved in cyber-relationships. The social support and the anonymity offered by social networking can lead to more severe addictive behaviour (Caplan, 2002).

There are a number of limitations that are associated with this study. It is recommended that an extension study be conducted to include a larger sample size with random sampling methods. Future study can also investigate the effects of demographic variables on Internet addiction. An in-depth study that analysed the influence of Internet use on academic performance and social life of young people is also believed to be helpful in producing conclusive findings and recommendations.

In addition, instead of using a quantitative research design, future researchers are recommended to use different approach which is qualitative design in this study. The use of qualitative design can help them answer the research questions better. Future researchers are also required to use qualitative data collection techniques, such as interview and observation while conducting their studies. By having direct conversation with the respondents, the researchers may obtain more precise and reliable data that truly reflect personal opinions and perceptions (Salkind, 2010; 2013).

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