

Gender and Internet Addiction: The Malaysian Experience

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Abstract: A total of 388 social science students (134 male and 254 female) from a Malaysian university were surveyed using the Internet Addiction Test (IAT) devised by Young (1998). It was found that the average time spent on the Internet was 4.54 hours/day; about two thirds (67.7%) of the respondents were Internet addicted, being classified under Internet Addiction Levels 2 and 3 (IAT scores 40 points and above) with Level 1 denoting average Internet usage; and more than half (56.4%) were classified under Internet Addiction Level 2. In addition, another 11.3% of the respondents who were placed on Level 3 had “significant problems” related to Internet addiction. The findings further indicated that male students were significantly more susceptible to Internet addiction compared with female students. Nevertheless, the correlation between time spent on the Internet and the severity of addiction to the Internet was only low to moderate for female and male students respectively. The present study provides a basic assessment of the problem of Internet addiction that could be applied more broadly to students in Malaysian institutions of higher education.

Keywords : gender, Internet addiction, Malaysian institutions of higher learning, problematic use of Internet.

Introduction

The Internet provides many new avenues for learning and knowledge acquisition, and it has become an important tool in education. Through this medium, students gain access to information across a wide variety of topics. Properly utilised, the Internet can enhance communication between teachers and students. Nevertheless, undisciplined, excessive use of the Internet could lead to addiction, resulting in various undesirable outcomes such as poor academic performance, social isolation, difficulties at work and even impaired mental health [1, 2, 3, 13, 14, 18]. Internet addiction is becoming a more common problem as the Internet grows in popularity, especially among teenagers. Educators, research psychiatrists, as well as parents now realize the seriousness of the escalating problem of Internet addiction.

Terminologies such as Internet dependence, Internet addiction disorder, problematic Internet use, or pathological Internet use have been adopted by researchers to describe the negative effects of excessive Internet use on personal lives [4]. Internet addiction is described as an impulse control disorder [17]. She introduced the term ‘Internet Addiction Disorder (IAD) to describe the condition characterised by an unrestrained and problematic use of the Internet. Persons who are addicted to the Internet may have symptoms similar to those associated with other forms of addiction and may also suffer from other multiple

disorders [7]. Younger Internet users are more at risk of becoming Internet addicts compared with older users [16].

Past research shows that university students frequently exhibit signs of Internet addiction. Chen and Peng [19] in their analysis of 49,609 university students in Taiwan, found that compulsive Internet users spent an average of 33.9 hours per week browsing on the Internet. Ko, Yen, Chen, Chen and Yen [9] who conducted a similar research in three schools found that 19.8% of 454 teenagers suffered Internet addiction. They spent an average of 20 hours per week browsing the Internet. Playing online games, which took up most of their Internet time, was the main cause of their addiction. In another study, [8] used the Young Diagnostic Questionnaire and categorised 9.58% of 3,496 Chinese college students as Internet addicts. Similarly, [2] surveyed 3,342 Chinese students in Guilin University of Electronic Technology, 25% of whom showed signs of Internet addiction. Further analysis revealed that gender difference was significant in this respect. In a study based on the Young Diagnostic Questionnaire (YDQ) covering 1,876 respondents in nine universities and the Technology Education Institute, [6] found that 11.6% of the respondents were Internet addicts, while 23.1% were categorized as problematic Internet users.

Li, Wang and Wang [11], who surveyed 654 college students from Guangzhou, China, found 13.6% of the respondents having problematic use of the Internet. Further analysis showed no significant difference in Internet addiction between male and female respondents. Odaci [12] also obtained similar results in a study of 398 respondents from a university in Turkey. Nevertheless, there have been reports to suggest that male students were more susceptible to Internet addiction. A research conducted by [20] on 411 university students in North Cyprus found that more male students were suffered to have Internet addiction problems compared with female students. The findings of [21] on 493 students from the Faculty of Education, Fatih Technical University in Turkey indicated that the incidence of male students having problematic Internet use was significantly higher than that among female students.

A comparative study between students by [15] from three universities in Turkey and another three universities in South Korea revealed that there was no significant difference in the problematic use of the Internet between the two countries. However, in terms of gender difference, male students seemed to face more problems in undisciplined use of the Internet compared with female students in Turkey. In this respect, however, there was no difference between genders among South Korean students. Chou and Hsiao's [5] study on 900 college students in Taiwan found 54 of them suffering from Internet addiction. Male students showed a significantly higher incidence of Internet addiction as compared with female students. A similar research conducted by [7] at a Kuwaiti university also indicated that male respondents were classified as having a higher level of Internet addiction (18%) compared with female respondents (6%). Konstantinos, Siomos, Dimitrios, Odysseas, and Nikiforos [10] found that 26.3% of the respondents in their study were afflicted with Internet addiction, with male respondents showing a higher percentage of this affliction.

Problems associated with such addiction arise in different ways, one of which is the time spent browsing on the Internet. Students who have difficulty controlling their time spent online could end up dysfunctional. There is a need to conduct studies on Internet addiction among Malaysian students since past research has indicated that university students, are among the high risk group addicted to the Internet.

1. Objectives

The main aims of this study are

1. To compare the time on the Internet spent by male and female university students
2. To investigate the level of Internet addiction of male and female university students.
3. To examine the relationship between time spent online and the severity of Internet addiction of male and female university students.

2. Methodology

The study population comprised 388 university students majoring in Social Science, with 134 (34.5%) males and 254 (65.5%) females. The average age of the respondents was 22.53 years. A modified version of [17] Internet addiction test (IAT) was used to assess the incidence and severity of Internet addiction. The test consisted of a questionnaire with 20 statements. Participants responded to statements using a 5-point Likert-type scale with five response options; Rarely (Score 1), Occasionally (Score 2), Frequently (Score 3), Often (Score 4) and Always (Score 5). The scores were summed to a total of 20 to 100; higher scores indicated a higher level of addiction and the likelihood of a greater number of problems related to Internet usage. Young [17] has provided a general scale to interpret the scores (Table 1)

Table 1 : Levels of Internet Addiction

Level of Internet Addiction	Score	Description
Level 1	20 – 39	An average online user
Level 2	40 – 69	Online user experiences frequent problems because of excessive Internet use;
Level 3	70 – 100	Online user has significant problems because of Internet use that suggest the need for help.

The instrument was pilot tested on 66 university students who did not participate in the actual study. All the respondents completed the questionnaires. Cronbach's alpha index for the present sample was found to be acceptable (.922).

3. Findings

The first objective of the study was to measure the time spent online by the respondents. The overall mean index of using the Internet per day was 4.54 hours. That is, male students spent an average of 4.60 hours per day and female students spent an average of 4.50 hours per day. Table 2 shows that there was no significant difference in the time spent on Internet between male students ($M=4.60$, $SD = 3.09$) and female students ($M=4.50$, $SD= 2.69$; ; $t_{(386)} = .345$; $p = .730$).

Table 2 : Comparison of time spent online by male and female students

Groups	N	Mean	Standard deviation	t value	Degree of freedom	Significance
Male	134	4.60	3.09	.345	386	.730
Female	254	4.50	2.69			

The second research question was to investigate the level of Internet addiction based on gender. Table 3 shows that 125 respondents or 32.2% were not addicted to the Internet (classified under Level 1 of Internet addiction). The majority of the respondents (56.4%)

were classified under Level 2, characterized by ‘excessive Internet use’, whereas 11.3% respondents classified under Level 3 suffered from severe Internet addiction, according to Young’s scale [17]. In terms of gender, a higher proportion of women (36.2%) than men (24.6%) were ‘average users’ who were not addicted to the Internet. More male students were addicted (level 2) or severely addicted to the Internet (level 3), 60.4 and 14.9% respectively, than female students, 54.3 and 9.4% respectively.

Table 3 : Level of Internet addiction according to gender

Level	Male		Female		Overall	
	Total	%	Total	%	Total	%
1	33	24.6	92	36.2	125	32.2
2	81	60.4	138	54.3	219	56.4
3	20	14.9	24	9.4	44	11.3
	134		254		388	

Independent sample *t*-tests were performed to determine whether there was a significant difference in Internet addiction across gender (Table 4). Results indicated that male student spent significantly more time on the Internet (Mean = 2.64 hours, SD=0.801) than their female counterparts. (Mean = 2.39, SD = 0.766; $t_{(386)} = 2.95$; $p = 0.003$).

Table 4 : Comparison of Internet addiction between male and female respondents

Groups	N	Mean	Standard Deviation	t Value	Degree of Freedom	Significance
Male	134	2.64	.801	2.95	396	0.03
Female	254	2.39	.766			

The final research question of the study was to examine the relationship between the amount of Internet time spent and the score of the Internet addiction test. As shown in Table 5, an overall positive significant relationship was found ($r = .334^{**}$, $p=0.01$). Nevertheless, this correlation was more marked for male students ($r = .440^{**}$, $p = 0.01$) than for female students ($r = .270^{**}$, $p = 0.01$). Connolly and Sluckin (1971) deemed the correlation coefficients obtained to be ‘moderate’ in the case of the males students, and ‘low’ in the case of the female students.

Table 5 : Relationship between Internet time spent and Internet addiction test score

	Internet time spent		
	Male	Female	Overall
Mean score Internet Addiction	.440**	.270**	.334**
Strength of correlation according to [22]	Moderate	Low	Low

**Significant at the 0.01 level

4. Discussion

While there have been a considerable number of studies on Internet addiction in several parts of the world, there is limited research on the problematic use of the Internet by Malaysian university students. Thus far, much of the research in Malaysia has focussed on the educational benefits of using the Internet. Less attention has been paid to the problem of Internet addiction where students are unable to control their use of Internet, when they spend excessive time exploring non-academic websites such as those concerned with social networks, online shopping or online games.

The findings from this study showed that, on average, the students in this study sample accessed the Internet 4.54 hours/day or 31.78 hours/week. The amount of time spent by these students was similar to what was reported by [19] 33.9 hours per week. Ko et al. [9] reported that their respondents spent 20 hours/per week online. In terms of level of Internet addiction, the Internet Addiction Test (IAT) results showed that about two thirds (67.7%) of the respondents were Internet addicted (level 2 and 3). Most of the respondents (56.4%) were at level 2 Internet addiction. Young [17] indicates that at this level Internet users would experience frequent problems arising from excessive Internet use. Another 11.3% respondents from this study were categorized as having serious (Level 3) Internet addiction. Past research on Internet addiction has shown teenagers or university students having Internet addiction problems, but the prevalences have been nowhere as high as the 67.7% found in this study. For example [9] in their study found that 19.8% of their respondents experience Internet addiction. Other estimates of Internet addiction have come from [7] at 9.58%, [2] at 25%, [6] at 11.6%, and [11] at 13.6%.

In terms of gender, the findings from this study indicated that male students were significantly more prone to Internet addiction as compared with female students. However, a difference between genders was not found with regard to the time spent using the Internet. Findings from research by [20], [5], [7], and [10] support the findings of this study, i.e. more males than females experience the problem of Internet addiction. However, [11] and [12] found no significant gender differences with regard to Internet addiction problems.

The present study also showed a moderate correlation between time spent online and Internet addiction among male students. The corresponding correlation for female students was low, even though the relationship was statistically significant. Overall, the findings indicated a low to moderate correlation between the two variables.

This study revealed that Internet addiction existed among Malaysian university students, specifically social sciences students. Even though the number of respondents in the critical level (Level 3) was small, the number on Level 2 addiction was high. Proactive measures should be taken to prevent this group from moving on to Level 3 addiction, where the mental health, work performance and social well-being of the addicted persons could be seriously affected. Even though the present study focussed on social sciences students of one university, the problem of Internet addiction is likely to apply more broadly to students in other study disciplines and in Malaysian institutions of higher education in general.

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