Mobile Games: Total Time Usage per Day among the Private Higher Education Institution Students in Malaysia

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Abstract. The aim of this research is to establish a preliminary assessment of the time usage by students from private higher education institutions to play mobile games per day. A qualitative method was adopted for this research using document analysis from four programmes namely Diploma in Multimedia, Diploma in Management with Multimedia, Diploma in Animation and Diploma in Game Design. The numerical data collection was converted from the document. In addition, the data obtained were analysed using descriptive statistical techniques. The research findings revealed that the average time usage by students from Diploma in Multimedia programme to play mobile games was 1.86 hours per day. For students from Diploma in Management with Multimedia programme, the average time usage was 2.07 hours per day. While students from the Diploma in Animation programme used 1.71 hours per day to play mobile games. Overall. the highest score mean was 3.57 hours per day used by students from the Diploma in Game Design programme.

Key words: Mobile Games, Time Usage, Private Higher Education Institution Student

Introduction

Mobile media can be categorised ranging from mobile phones, smartphones and to netbooks which are intended to transform our daily lives. Through mobile media, people can communicate, locate, network, play, and do much more using mobile devices. In reality, almost all smartphone users always carry their smartphones with them wherever they go. This includes students who are using mobile phones for playing games, sending messages, chatting with each other even when the class is in progress (Alpana, Vinayak, & Ajay, 2016). One good reason that contributes to the success of mobile game is because of its mobility, which means gamers can play games at anytime and anywhere they wish (Hashim, Hamid, & Rozali, 2007).

In general, video game players had lower grade point average (GPA), but this finding varies by gender. Also, it has been reported that there is a greater likelihood that video game enthusiasts play video games to avoid doing homework (Burgess, Stermer, & Burgess, 2012).

Another disadvantage is that computer games have been discovered to cause eyestrain and chest pain and sleep deprivation resulting to black ring under the eyes thus causing players to suffer from muscle stiffness in the shoulders (Tazawa et al., 1997; Tazawa, & Okada, 2001). Heavy computer gamers are also less sociable (Cowell, & Stanney, 2005; Roe, & Muijs, 1998).

In terms of advantages, researchers in the 1990s discovered that people who play computer games have better vision and, in addition, computer games also assist students in improving hand-eye coordination and improve reflexes (Dorman, 1997; Emes, 1997; Tazawa, & Okada, 2001; Tazawa et al., 1997). Furthermore, computer games also improve logical thinking and problem solving skills (Benton, 1995; Colwell, Grady, & Rhaiti, 1995; Gentile, & Walsh, 2002; Pillary, Brownlee, & Wilss, 1999).

The purpose of this research is to establish the total time usage per day of mobile games among students of private higher education institutions in Malaysia.

Literature Review

The usage of mobile phones has been hugely accepted by Malaysians especially amongst students. Born in the technological era, students were found to have adapted well to the usage

of mobile phones. Generally, the students were found to spend on average 6 hours daily and a sum of USD18.70 monthly on their mobiles. Text messaging is the most used feature and peers are the most frequently contacted person. Older students used more voice calls while females text messages more frequently. Male and younger students were more interested in other features viz; multimedia messaging and general packet radio service (MMS and GPRS) in their mobiles. Students from higher income families spent more time and money on their mobile phones. Additional analyses showed that students with lower self-esteem who spent more time on the phone were more likely to be problem phone users (Sheereen, & Rozumah, 2009).

According to studies on smartphone addiction, based on a sample of 944 respondents who were recruited from 20 elementary schools in South Korea, this research examined the user characteristics and media content types that can lead to addiction. In terms of user characteristics, the findings revealed that those who have lower self-control and those who have greater stress were more likely to be addicted to smartphones. For media content types, those who use smartphones for social network software (SNS), games, and entertainment were more likely to be addicted to smartphones, whereas those who use smartphones for study-related purposes were not. Although both SNS use and game use were positive predictors of smartphone addiction, but SNS use was a stronger predictor of smartphone addiction than game use (Jeong et al., 2016).

On another research conducted on 65 students, most of the respondents prefer to play games that can be categorised into card and arcade games (80%), followed by action games (69.2%), role-playing games (63.1%), puzzle games (50.8%), strategy games (26.2%) and the least played games are the sport games category (21.5%). This clearly shows that respondents have a tendency towards computer games that challenge the minds but in a more relaxing situation. A game that needs concentration and focus is more likely to be avoided (Omar, Jan, & Daud, 2010).

In addition, the popular mobile games have at least two of the following features: simple rules, social interactions, and the removal of enemies and missions that do not require defeating an enemy to complete. Mobile games that require careful controls, such as tilting the screen or fast and unpredictable movements, are mostly downloaded on to the iPad instead of on to the iPhone (Kim, 2013).

Materials and Methods

This study applied the qualitative method. The sample comprised of students from Kolej Poly-Tech MARA between the age group of 18 to 25. Data were collected from 28 students. Seven students for each of from four programmes were chosen namely Diploma in Multimedia, Diploma in Management with multimedia, Diploma in Game Design and Diploma in Animation. This sample size is reasonable according to Bowen (2009) who stated that the qualitative researcher is expected to draw upon multiple (at least two) sources of evidence (Bowen, 2009).

The collection of data was carried out for 2 weeks from 19th April 2019 till 3rd May 2019 using the document analysis technique. Responses were randomly drawn from the Study Skills Subject. The document was taken from one of the assignments which was a weekly schedule. The schedule has been blocked out and labelled as their fixed time commitments, such as class schedule and basic living activities such as eating, sleeping, personal maintenance, exercise etc. Figure 1 shows the example of weekly schedule.

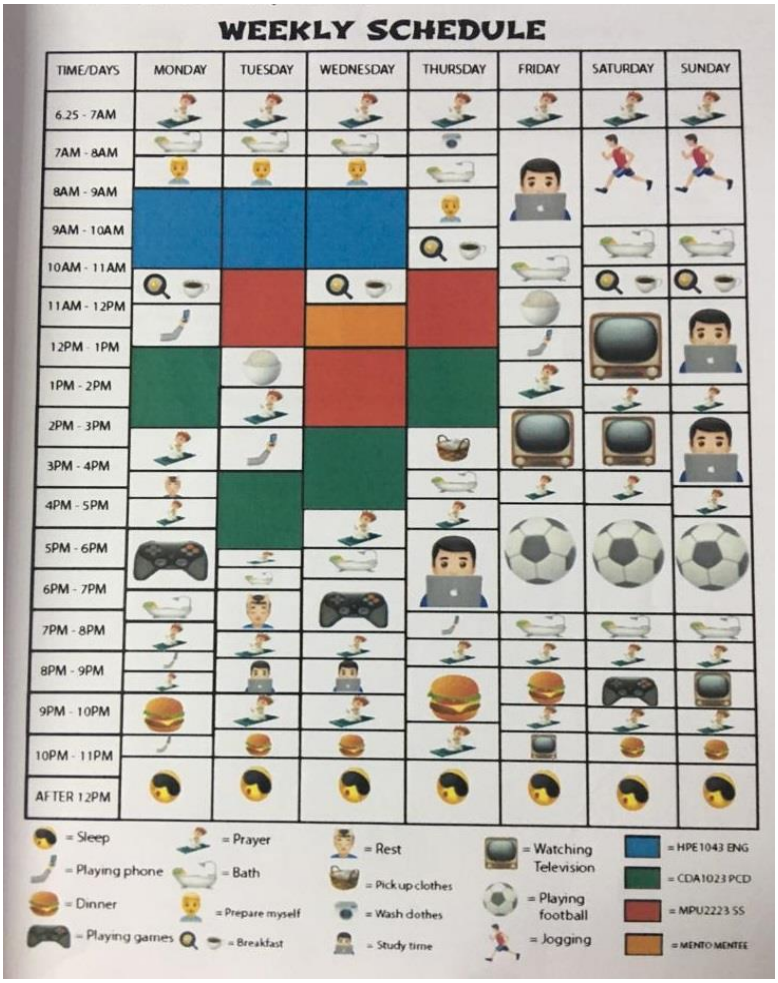

Figure 1. Weekly Schedule

Results and Discussion

This study applied the qualitative method. The sample comprised of students from Kolej Poly-Tech MARA between the age group of 18 to 25. Data were collected from 28 students. Seven students for each of from four programmes were chosen namely Diploma in Multimedia, Diploma in Management with multimedia, Diploma in Game Design and Diploma in Animation. This sample size is reasonable according to Bowen (2009) who stated that the qualitative researcher is expected to draw upon multiple (at least two) sources of evidence (Bowen, 2009).

Time Usage by Students from Diploma in Multimedia Programme (DIM)

From Table 1, the average number of students from the Diploma in Multimedia programme who play mobile games is 1.86 hours per day (Mean: 1.86, SD: 1.07). Of the seven respondents, only 42.9% spent 1 to 2 hours to play mobile games and about 14.3% spent 4 hours a day to play mobile games. Table 2 shows the frequency of student time usage for mobile games.

Table 1. Statistical Analysis on Average Time Usage per Day

Descriptive Statistics						
	N	Min	Max	Sum	Mean	Std. Deviation
DIM	7	1	4	13	1.86	1.069
DMM	7	1	4	15	2.07	.932

DIA	7	1	3	12	1.71	.756
DGD	7	2	6	25	3.57	1.512
Valid N (listwise)	7					

Table 2. Frequency of Time Usage by students from Diploma in Multimedia Programme for Mobile Games

DIM					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	3	42.9	42.9	42.9
	2	3	42.9	42.9	85.7
	4	1	14.3	14.3	100.0
	Total	7	100.0	100.0	

Time Usage by Students from Diploma in Management with Multimedia Programme (DMM)

Table 1 shows that students who are pursuing the Diploma in Management with Multimedia spent more than 0.21 hours a day (Mean: 2.07, SD: 0.93) to play games. From Table 3, the percentage shows that 28.6% spent 1 hour a day to play mobile games. 42.9% spent 2 hours a day and 14.3% students use 4 hours a day to play mobile games.

Table 3. Frequency of Time Usage by Students from Diploma in Management with Multimedia Programme for Mobile Games

DMM					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	2	28.6	28.6	28.6
	2	3	42.9	42.9	71.4
	3	1	14.3	14.3	85.7
	4	1	14.3	14.3	100.0
Total		7	100.0	100.0	

Time Usage by Students from Diploma in Animation Programme (DIA)

From Table 1, average students from the Diploma in Animation programme who play mobile games is 1.71 hours per day (Mean: 1.71, SD: 0.76). Of the seven respondents involved, only 42.9% spent 1 to 2 hours to play mobile games and about 14.3% need 3 to 4 hours a day to play mobile games. Table 4 shows the frequency of student time usage for mobile games.

Table 4. Frequency of Time Usage by Students from Diploma in Animation Programme for Mobile Games

DIA					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	3	42.9	42.9	42.9
	2	3	42.9	42.9	85.7
	3	1	14.3	14.3	100.0
	Total	7	100.0	100.0	

Time Usage by Students from Diploma in Game Design Programme (DGD)

Table 1 shows that student of Diploma in Game Design have the highest average compared to other programmes. The mean reading shows Mean: 3.57 hours a day. Percentage

shows that 28.6% of students spent 2 to 3 hours a day to play mobile games. While the percentage of students who spent 4 to 6 hours a day is 14.3%. Table 5 shows the reading.

Table 5. Frequency of Time Usage by Students from Diploma in Game Design Programme for Mobile Games

DGD					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	2	28.6	28.6	28.6
	3	2	28.6	28.6	57.1
	4	1	14.3	14.3	71.4
	5	1	14.3	14.3	85.7
	6	1	14.3	14.3	100.0
	Total	7	100.0	100.0	

Conclusion

A significant increase in recent years of smartphone gaming or mobile games. The findings of this research revealed that the average time used by students from Diploma in Multimedia programme for mobile games is 1.86 hours per day. Whereas the average time usage by students from Diploma in Management with Multimedia programme, is 2.07 hours per day. While students from Diploma in Animation programme, used 1.71 hours per day to play mobile games. The highest score mean is 3.57 hours per day used by students from Diploma in Game Design programme.

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