

Regression Analysis on Internet Usage among Pre-teenagers in Malaysia: A Case of Central Region

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Abstract

The study is to identify the Malaysian pre-teenagers in habits on internet usage: activities, time, place, source of learning, frequent website and topic of interest. This study also will identify the relationship between gender, classes and the internet usage habit among the pre-teenagers. Pre-teenagers in this study refer to teenager age 11-12 years old, currently in Year Six of primary schools in suburbs of central region. 350 sets of questionnaire have been distributed to a group of them to be answered. Regression analysis is implemented for the analysis in order to estimate the effect of some explanatory variable on the internet usage habit among the pre-teenagers. The findings have implications for several stakeholders of pre-teenagers. The online content developers can create and develop contents to suit pre-teenagers' needs and interests. Parents and educators will be able to monitor Internet use to bring about positive impact and to prevent negative one. Policy-makers can use the findings to formulate appropriate strategies / policies to encourage more creative and constructive online contents befitting pre-teenagers' interests and habits. Malaysian society in general must be prepared to face the challenge of cultural and value changes brought about by youths' frequent use of the internet.

Keywords: Pre-teenager; Online Internet; Internet Usage; Regression Analysis.

1. Introduction

There have been several surveys conducted to discover the internet usage around the world. According to International Telecommunication Union (ITU) survey on 2011, one third of the 7 billion world's population is online and 45% of the internet users are below 25 years old. Internet World Stats indicated in his website that Malaysian is one of the Asia top internet countries with 17.7 million users and 12 millions used Facebook as at December 31, 2011.

The use of Internet among children and teenagers has been a matter of concern among parents, educators and citizens of the world. There have been studies to discover the activities of children and teenagers on the Internet: which web sites are visited and what contents are read by them. The frequency and duration of time spent on the internet are also investigated to identify the negative / positive impact the internet may have on children and teenagers. The development of Child Net and NSteens online is an example of initiatives to provide exclusive online information to guide and support young people, enabling them to make educated life choices, participate in society and achieve their ambitions (www.childnet-int.org, www.netsmartz.org, www.safeteens.com). Several studies (Lenhart, *et al*, 2010; Livingstone, S., 2003; Amichai, *et al*, 2011) done in the US and UK have also pointed out the advantages and disadvantages of Internet use, and concerned citizens have initiated action to safeguard children and pre-teenagers from the perils of the Internet.

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In Malaysia, the concern on pre-teenagers' use of the Internet has been seen in mass media from time to time. However there is no serious research to investigate the details of pre-teenagers' activities on the web, although there are data to indicate that the Internet use has been on the rise in Malaysia, compared to other countries (Malaysian Communication and Multimedia Commission (MCMC) 2010). The objectives of this study are as following:

1. To identify the pre-teenagers habits on Internet usage: usage time, usage places, frequent website visited and, internet interest topic are significant.
2. To estimate regression model for internet usage among pre-teenagers.

2. Literature Review

In Malaysia, a few studies were conducted among the young adults and the workers. According to Nielsen Mobile Insight Malaysia 2010 survey, internet usage in Malaysia increased to 41% in 2010 from 25% in 2009. The findings from the survey also indicate that the highest internet usage was among the youth aged between 20 and 24, and spent an average of 22.3 hours online per week (Marketing Magazine, 2011). The survey was conducted between October and December to 2010, and the age of the respondent between 15-64 years old. A survey of internet usage in the Malaysian construction Industry was conducted by a Group of Universiti Sains Malaysia between November 2000 and January 2001, with objectives to obtain the current levels of internet usage in the construction industry in Malaysia and the benefits and disadvantages experienced by the users. The survey found that the respondents have the accessibility to the internet and the main use is only for email and information search (Mui et.al. 2002). Mohd Fairuz, Chong & Chew also has conducted a research in 2008 to examine the relationship between learning organization and internet usage by Malaysian IT employees. The results reveal that culture, structure and process and people characteristics have significant relationships with both purposes of internet usage and types of internet tools.

However, the above studies have not paid specific attention to Malaysian pre-teenagers especially who staying at suburbs area, even though research in developed countries have found the frequent activity to be computer games and social network, sometimes with strangers. The internet, and other new communications media are often seen to pose threats and dangers to the children and pre-teenagers, but they also provide new opportunities for creativity and self-determination.

2. Research Method

The study focused on Malaysian pre-teenagers aged between 11 - 12 years old, currently in Standard Six in primary schools in suburbs area in Selangor. These groups of respondents are selected because they are in the formative years of turning from children to teenagers, and contribute to future national development, provided proper guidance is given to them in a positive manner. The suburbs area is selected as there is very few studies focus this suburb compares than the rural or urban area. Pre-teenagers from this suburbs area have either more or less knowledge or facilities to use the ICT and the internet. The respondents are randomly selected from 3 suburbs school in Selangor.

A set of questionnaire was designed to gather data to answer the research questions and achieve the study's objectives. The schools' authorities have been meeting on October 2011 to get the approval and cooperation to collect data from their students as identified under the above-mentioned. The data was analyzed using Microsoft Excel and SPSS. Descriptive statistics and Tests of Significant Differences among variables to formulate appropriate strategies and action plan to modify the national curriculum and methods of learning

and teaching to suit the interests and profiles of teenagers and youths, especially in suburbs area were also being used. Multiple regression procedures are the most popular statistical procedures used in social science research. The difference between the multiple regression procedure and simple regression is that the multiple regressions have more than one independent variable. The linear regression equation takes the following form:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \dots + \beta_n X_n$$

Where n is the number of independent variables.

3. Data Analysis and Findings

| Variable | Coefficients | P-value |
|-------------------------|--------------|---------|
| Internet interest topic | .628 | .000 |
| Gender | -.054 | .250 |
| Usage time | -.011 | .027 |
| Usage Places | .013 | .212 |
| (Constant) | .381 | .000 |
| $R^2 = 0.543$ | | |

Table 1: Regression result

Multiple linear regression analysis was used to develop a model for predicting the frequent website visited with the regression results in Table 1 indicates that only two predictor variables which is Internet interest topic and usage time are statistically significant at 5% level of significance ($P < 0.05$). Gender and usage places did not contribute to the multiple regression models since the p-value > 0.05 . The multiple regression model with all four predictors produced $R^2 = 0.543$.

The regression equation is:

$$Y = 0.381 + 0.628X_1 - 0.054X_2 - 0.011X_3 + 0.013X_4$$

Y = Internet Usage

X_1 = Internet interest topic

X_2 = Gender

X_3 = Usage time

X_4 = Usage places

4. Conclusion

From the results, we conclude that only internet interest topic and usage time are influence the internet usage among pre-teenagers. The new findings of this study are the empirical data to provide insights on the Internet use by pre-teenagers in suburbs areas. These data have not been discovered in previous studies. The findings are useful for parents, teachers, government, and concerned citizens in order to be aware of our youths and their activities on the internet. Appropriate action and policies can be initiated to enhance positive

impact and to prevent negative one. Content developers of online materials can use the findings to create the products that will fulfill the needs and interests of our youths.

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