

Factors Affecting Media Literacy of Early Teenagers

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Abstract—The purposes of this research are: 1) to study the media literacy of early teenagers, and 2) to study the interaction between gender and timing of media exposure that affects the media literacy of teenagers. The sample of the study included 400 young people aged between 11 to 17 and who were living in Bangkok. The data was collected using questionnaires. Two-way ANOVA was used in analyzing the collected data. The result revealed that gender and timing of media exposure affected the media literacy of early teenagers with statistical significance at the level of 0.05.

Keywords—Gender, Media Literacy, Teenager, Timing of Media Exposure.

I. INTRODUCTION

THE advancements of communication technologies and globalization have enabled rapid communications and widespread dissemination of information across the globe, driving the world into the information era when societies can be easily overwhelmed by information. This represents two sides of the same coin as information can drive both positive and negative changes in the society. In the society where people lack understanding and are unaware of the powerful influence of information on their thinking and behavior, they can be easily persuaded into negative direction particularly teenagers who by nature are sensitive and make decision based on emotion, thus being at the highest risk of media influence.

Media literacy refers to knowledge and skills that enable a recipient to understand the purpose and motive of his/her message receipt as well as those of the sender, the production and technique used by the sender to draw attention of the recipient as well as the culture, economic system and politics that may affect the creation of message meaning. It also includes the ability to comprehend the impacts of message receipt [1]-[7]. Therefore, the concept of media literacy has been raised in many countries to protect the people including teenagers from negative influence of media.

Media literacy helps teenagers to wisely expose to media, properly select, and use information to its maximum benefits. Many scholars are interested in media literacy in various aspects, e.g. Virojtrairatt (1997)'s "*An Analysis of Media Literacy Levels for Higher education Students in Thailand*" which studied the concepts and attributes of media literacy and analyzed levels of media literacy of 504 first-year universities students in Bangkok metropolis; Phienrungrroj (2000)'s "*Study of Concepts to Determine Variables Influencing Media Literacy for Mass Media Research*" which focused on the definition of media literacy and concepts to measure variables

influencing media literacy for future mass media research; Mihailidis (2008)'s "*Beyond Cynicism: How Media Literacy Can Make Students More Engaged Citizens*" which explored the effectiveness of media literacy in U.S. higher education based on two fundamental questions about the outcomes of a media literacy course: do students become more knowledgeable consumers of media messages?, and do students, armed with that knowledge, become more engaged citizens? and Bordac (2009)'s "*Identifying Undergraduate Media Literacy Skills: An Exploratory Study Of Faculty Perceptions*" which was a qualitative and exploratory study featuring interview of a small sample of faculty members (n = 11), each of whom use visual content in their teaching, to identify the attributes they identify as media literacy skills for undergraduate students;

The situation of media literacy and researches mentioned above have initiated the interest to study "Factors Affecting Media Literacy of Early Teenagers" to learn about the media literacy of early teenagers and whether there is an interaction between gender and timing of media exposure that affects the media literacy. The results from this study will be used as guideline for proper development of media literacy among early teenagers.

II. RESEARCH OBJECTIVES

- 1) To study the media exposure behavior of early teenagers.
- 2) To study the level of media literacy among early teenagers.
- 3) To study interaction between gender and timing of media exposure that affects the media literacy of early teenagers.

III. HYPOTHESIS

There is an interaction between gender and timing of media exposure that affects the media literacy of early teenagers.

IV. SIGNIFICANCE OF THE STUDY

- 1) Factors affecting the media literacy of early teenagers are examined.
- 2) The result of this research can be used by the public and private media organizations and related parties as guideline to determine policy to properly promote the media literacy among early teenagers.

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V. METHODOLOGY

This study utilized a survey method and purposive sampling method. Among the total population of 804,419 (Office of the National Statistics, 2010), 400 early teenagers aged between 11 and 17 and living in Bangkok were selected as the sample. Questionnaire was used as data collection tool and the internal consistency coefficient (Cronbach' alpha) was used to investigate its reliability, which was found to be 0.926. The data was analyzed by basic statistics and two-way analysis of variance (two-way ANOVA).

To measure the media literacy of early teenagers, the level of scores were interpreted as follows: average score of 4.21-5.00 means very high media literacy, average score of 3.41-4.20 means high media literacy, average score of 2.61-3.40 means moderate media literacy, average score of 1.81-2.60 means low media literacy, and average score of 1.-1.0080 means very low media literacy.

VI. RESULTS

A. Analysis of general information of the respondents

The analysis showed that the majority of the samples were female (59.3%) aged between 15 and 17 (86.0%) who were studying in high school (66.3%). Most had personal income of not more than THB 5,000 (46.8%) per month and family income of more than THB 50,000 (37.5%), and lived with their parents (82.5%).

B. Analysis of media exposure behavior

The analysis showed that most of the samples exposed to media *everyday* (54.0%), followed by *often* (5-6 times/week) and *sometimes* (3-4 times/week) (26.0% and 17.8% respectively). The daily period of exposure was *1-3 hours* (47.3%), followed by *over 3 hours but not over 6 hours*, and *over 6 hours* (25.8% and 11.8% respectively). In addition, it was found that the highest level of media exposure took place in the *evening* (50.8%), followed by *night and noon* (35.5% and 7.3% respectively). The Top 3 media with the highest exposure was television, internet and radio (47.0%, 44.9% and 4.8% respectively).

C. Analysis of media literacy of early teenagers

The analysis indicated that the samples overall had high media literacy ($\bar{x}=3.59$). For each separate issue, the issue with highest media literacy was that nice pictures in the media are usually improved by retouching techniques and are not real pictures ($\bar{x}=3.74$), followed by rather high media literacy on the issue that there is always advertisement hidden on various media, and that advertising images on the media are created for the purpose of product sales ($\bar{x}=3.68$ and 3.61 respectively)

D. Factors affecting media literacy of early teenagers

1. Analysis of statistical data explaining media literacy of early teenagers and timing of media exposure.

According to the analysis of statistical data explaining media literacy of 400 early teenagers, the result showed high media literacy score of 3.59. Classified by gender, the female samples had high level of media literacy which scored at 3.68, higher than 3.46 of the male samples. On timing of media exposure, the samples who exposed to the media in the morning had high media literacy with the score of 3.83, which was higher than the score of 3.62, 3.55 and 3.38 when being exposed to the media in the evening, night and noon time respectively. It can be concluded that the male and female samples had equally high level of media literacy when they were exposed to the media in the morning.

Considering the media literacy of 8 sample groups, the male samples who exposed to the media in the morning had high media literacy score of 3.93, followed by the female samples who exposed to the media in the morning, having high media literacy score of 3.75. Ranking at third place was the female samples who exposed to the media at night, having high media literacy score of 3.74, which was very close to the second. The male samples who exposed to the media in noon time had the lowest media literacy with a moderate score of 3.29, which was close to 3.30 score of the previous ranking, the male samples who exposed to the media at night. The male samples who exposed to the media in the evening and the female samples who exposed to the media at noon and in the evening had high media literacy score of 3.56, 3.51 and 3.65 respectively.

The standard deviation of all 8 sample groups was close. The female group who exposed to the media in the morning had highest of 0.70, which was close to 0.69 of the male samples who exposed to the media in the morning. The resulting p-value of Levene's test was 0.080 which means the hypothesis was not rejected. In other words, the variances of the 8 population groups were not significantly different. Therefore, the pairwise comparison of average (Bonferroni) after variance test required statistical data of the population groups that have no significant variance as shown in Table I.

2. Two-way ANOVA for media literacy of early teenagers

The two-way ANOVA was utilized to study the interaction influence and core influence of gender (male/female) and timing of media exposure, i.e. morning, noon, evening and night time on the media literacy of early teenagers. It was found that gender (male/female) and timing of media exposure, i.e. morning, noon, evening and night time had interaction influence on the media literacy of early teenagers with statistical significance at the level of 0.05 as shown in Table II. Taking into account the averages of all 8 population groups, the early teen females who exposed to the media in noon, evening and night time had higher media literacy than the early teen males, except for media exposure in the morning when the early teen males had significantly higher media literacy than the teen females as shown in Figure I. Therefore, the analysis was in line with the descriptive statistics in 1.

TABLE I
Descriptive Statistics for Media Literacy of Early Teenagers and Timing of Media Exposure

Timing of media exposure	Mean			Std. Deviation			N		
	Gender			Gender			Gender		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Morning	3.93	3.75	3.83	0.69	0.70	0.69	12	14	26
Noon	3.29	3.51	3.38	0.62	0.61	0.61	17	12	29
Evening	3.56	3.65	3.62	0.63	0.54	0.58	73	130	203
Night	3.30	3.74	3.55	0.40	0.51	0.52	61	81	142
Total	3.46	3.68	3.59	0.58	0.55	0.57	163	237	400

Remark: Levene's test of equality of error variances: $F=1.831$; $df=7,392$; $P=0.080$

TABLE II
Two-way ANOVA of Media Literacy of Early Teenagers

Variance	SS	df	MS	F	P
Gender (Male/Female)	0.934	1	0.934	3.064	0.081
Timing of media exposure (Morning/Noon/Evening/Night)	3.310	3	1.103	3.620	0.013
Interaction	3.497	3	1.166	3.825	0.010*
Residual variance	119.455	392	0.305		

* $p<0.05$

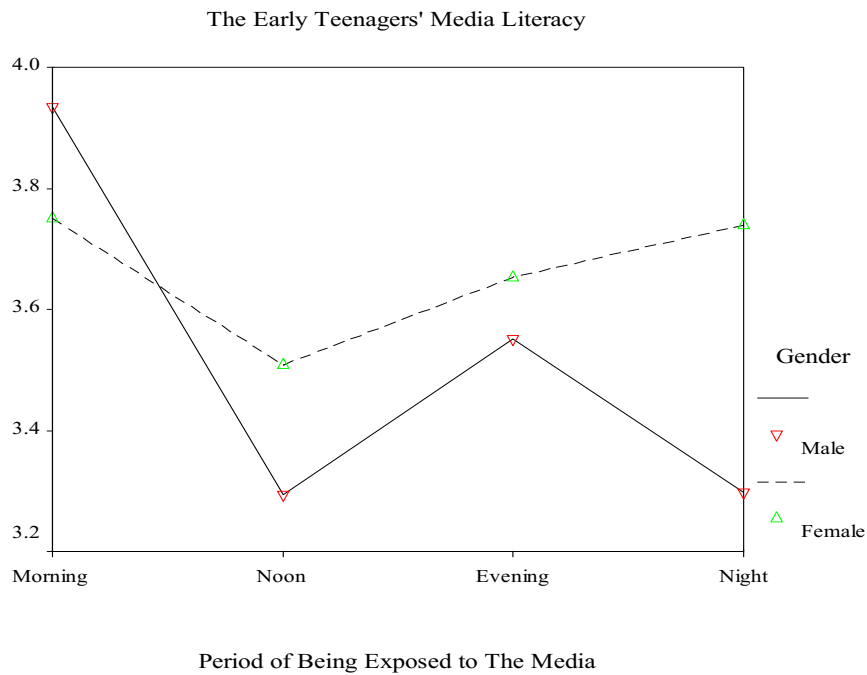


Fig. 1 Disordinal Interaction between Gender and Timing of Media Exposure Affecting Media Literacy of Early Teenagers

VII. DISCUSSION

1) The data analysis indicated that the samples had high media literacy. This may be because teenagers nowadays have extensive opportunities to learn and gain media experience from their exposure to political, economic, social and cultural information. Most importantly, teenagers are exposed to various types of media particularly modern day teens who can easily gain access to the media such as newspaper, radio, television, movie and internet. These teenagers have good user skills for various media. They can enhance their social competence by communicating and developing content to create social relationship through channels such as Facebook, blog, etc. Lastly, Thai teenagers are now in the context where media literacy has been encouraged by the government and other agencies, for example, the Child Media Institute under Thai Health Promotion Foundation which promoted children's media literacy by organizing the activity to develop the "Public Proposal on Children's Media Literacy". Teenagers therefore gain knowledge and broaden their vision. They can understand a deeper aspect of media content as well as the hidden objectives and are not easily convinced. This is supported by the studies of Celot & Perez Tornero (2009) and Makesritongkum (2012) in which two dimensions of media literacy were identified in the structure of media literacy assessment criteria: environmental factors, i.e. media availability and media literacy context, and individual competences, i.e. personal competences and social competences. This is also in accordance with the study of Keawmanee (2004) which stated that the recipient can gain media literacy skills through learning and exposure to various media.

2) The analysis indicated that gender (male/female) and timing of media exposure (morning/noon/evening/night) had interaction influence on media literacy with statistical significance at the level of 0.05. The male and female samples who had different timing of media exposure had different levels of media literacy. Both male and female samples had the highest media literacy score in the morning, and television was the media with the highest exposure of both groups. In morning time, 6 major television channels in Thailand mostly set a block of programming schedule for news and knowledge programs targeted at general viewers, e.g. *Chao Wan Mai* (News for New Day), *Tan Loke Kila* (Sports Update), *Krobkruea Kao Dek* (Kids News) and *Rueng Lao Chao Nee* (Morning News Talk) on Channel 3, or *Roo Rak Pandin* (Learn & Love Our Country), *Wongjorn Kila* (Sports Circle), *Kao 5 Na 1* (Front-page News on 5) and *5 Chao Kaow Dee* (Morning News on 5) on Channel 5, etc.

Therefore, viewing news and knowledge programs in the morning allow the recipient to gain useful information for everyday living, which is likely to help improve their media literacy than watching soap operas or dramas that focus mainly on exciting storyline to captivate viewer's attention. Plenty of drama programs are shown on Thai television in noon, evening and night time.

For other timing of media exposure, the female samples had high media literacy score than the male samples at noon, in the evening and at night. This is in line with Schramm

(1973)'s concept of demographic characteristics which states that people of different gender have different perception, experience, expression of opinion, attitude, value and behavior. Such difference may affect the recipient's media literacy. The result of the study was supported by Livingstone and team (2007)'s concept which says that gender, on media access basis, is significantly correlated with media literacy. It is also found in this research that television was the type of media with the highest exposure among early teenagers. According to the study of Mosuwan (2008), teen females had higher media exposure than teen males. It is likely that the consequential receipt of more information has effects on their media literacy.

VIII. RECOMMENDATION

With the result of this research showing that there is an interaction between timing of media exposure and media literacy, related agencies, both of the public and private sectors, are recommended to set a suitable timing to publicize media literacy content in order to ensure efficiency and success for the cultivation of media literacy among early teenagers.

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