# Gender Differences in Preconception about Media among Japanese Students 

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#### Abstract

The objective of this study is to investigate gender differences in Japanese students' preconceptions about media. Preconception was gauged using the 'one pair' comparison method employing four dimensions and four media activities. Data was collected from eight elementary schools (E5 and E6), three lower secondary schools (LS), one upper secondary school (US) and four universities (UN).

Female preconceptions are characterized by a preference for TV. As far as females are concerned, TV provides timely information (E6, US), is easy to watch (E6, LS, US, UN) and they like watching it (E5). This agrees with the findings of Dentsu (2008). The Dentsu investigation found out that females watch TV frequently. For example, $54.9 \%$ of females can list the titles of more than three serialized TV dramas. Only $29.4 \%$ of males can do the same.

On the other hand, males' preconceptions are characterized by a preference for the Internet. As far as males are concerned, the Internet is reliable (E5, LS, UN), provides timely information (US) and they prefer to use it (US).


## Introduction

The objective of this study is to investigate gender differences in Japanese students' preconceptions about media. The media environment surrounding children has changed rapidly. Children have come to spend a lot of time watching television and surfing the Internet. People spend almost four hours a day watching
television. The popularity of electronic media such as the Internet in particular has increased rapidly in recent years. The Ministry of Internal Affairs and Communications (2008) points out that the Internet diffusion rate has been growing among all generations in the last three years. For example, the Internet diffusion rate among 6 to 12 years old children was $62.8 \%$ in 2004. However, the Internet diffusion rate for the same age group passed to $68.7 \%$ in 2007. The Internet diffusion rate among 13 to 19 years old in 2007 was $94.7 \%$. Children have become well acquainted with the powerful search engines of the Internet which require a nominal connection fee. The appearance of such new media nevertheless entails the problem of acquiring media literacy. Dentsu (2008) investigates gender differences in the style of media utilization. Males tend to use search engines actively. $73.7 \%$ of males answered that they had used Internet search engines to obtain more information about advertisements in the past month. On the other hand, among females, only $57.1 \%$ replied to the same question in this way. Dentsu also points out that females tend to prefer watching TV.

Media literacy in the information network era demands the ability to understand information, and the ability to use and to criticize media. At the same time, the relationship between preconceptions about media and media literacy has become clear. Gotoh and Ikuta (2006) found out, using Structural Equation Modeling, that preconceptions about media positively affected critical thinking during web browsing.

[^0]Information relating to preconceptions about media is important for the development of curricula in media literacy. Despite this, little is known about media preconceptions. There is great ignorance in particular about gender differences when it comes to preconceptions about media among elementary school children, lower secondary students, upper secondary students and university students. Such information would appear to be useful for curriculum development in media literacy. This study therefore outlines gender differences in perceptions about media.

## Method

## Subjects

Data was collected from eight elementary schools (E5 and E6), three lower secondary schools (LS), one upper secondary school (US) and four universities (UN) (Table 1).

## Investigation of Preconceptions

Preconceptions concerning media were assessed using the scale from Ikuta and Gotoh (2001). Preconception was gauged using the 'one pair' comparison method employing four dimensions and four media activities. The four dimensions were preference, ease, timeliness and reliability. Media activities were reading books, watching TV, reading newspapers and using the Internet. Eight pair combinations using four activities were shown and chosen by each pair. The questions were as follows.

- When researching, which activity was your favorite? (Preference)
- When researching, which activity was easiest? (Ease)
- When researching, which information was new? (Timeliness)
- When researching, which information was reliable? (Reliability)

Using the data obtained, the relationship between the different media activities was computed by the method of 'paired comparisons' using Thurstone case V. In order to compare gender difference preconceptions, the number of times each activity was selected was analyzed. The maximum frequency of selection was 3 times and the minimum 0 times. The $t$-test was used.

## Results

## Overall Tendencies

Figure 1 shows the relationship between media activities concerning the whole research sample. Concerning timeliness, less timely media activity is located at the starting point. The further the activities are from the starting point, the timelier they are. Regarding reliability, less reliable media activity is located at the starting point. The further the activities are from the starting point, the more reliable they are. As for preference, media activities that were liked the least are located at the starting point. The further the activities are from the starting point, the more they are liked. Concerning easiness, media activities that were

Table 1 The number of subjects

|  | Male | Female |
| :--- | ---: | :---: |
| Elementary $5^{\text {th }}$ Children (E5) | 112 | 98 |
| Elementary $6^{\text {th }}$ Children (E6) | 199 | 190 |
| Lower secondary students (LS) | 77 | 296 |
| Upper secondary students (US) | 159 | 243 |
| University students (UN) | 161 | 240 |



Figure 1. Distance during media activity (Overall)
difficult are located at the starting point. The further the activities are from the starting point, the easier they are perceived to be.

Reading books was considered to be difficult and not liked. Reading books was also considered to be not timely. Reading newspapers was considered to be more timely than reading books. Students felt that reading newspapers was reliable but they did not enjoy it. Watching TV was considered to be timely, reliable, easy and enjoyable. Using the Internet was considered to be timely. Students enjoyed using the Internet and felt it was easy to do. On the other hand, students felt information from the Internet was not reliable. There were significant correlations among the four dimensions. Correlation among the four dimensions was especially clear concerning use of the Internet.

## Gender Comparison

## Whole research sample

Figure 2 shows the overall tendencies of the whole research sample. Females tend to consider that TV is a timely, reliable type of media and
they tend to like watching TV. Females also tend to like reading books and feel that reading books is easy. On the other hand, males tend to consider that the Internet is a timely, reliable type of media and they tend to like using the Internet. Males also tend to like reading newspapers and feel that reading newspapers is easy.

## Elementary $5^{\text {th }}$ children (E5)

Figure 3 shows gender differences among E5. There is a significant difference in preconceptions about the reliability of the Internet. Males tend to consider that the Internet is a reliable type of media. Females tend to prefer reading books. Gender differences among E5 are not so clear.

## Elementary $6^{\text {th }}$ children (E6)

Figure 4 shows gender differences among E6. Females tend to consider that TV is timely and easy. Males tend to consider that books are a timely and easy type of media. Males also tend to like reading newspapers. In this age group, females' tendency to prefer TV is clear.


Figure 2. Overall tendencies of the whole research sample


Figure 3. Gender differences in Elementary $5^{\text {th }}$ children


Figure 4. Gender differences in Elementary $6^{\text {th }}$ children

## Lower secondary students (LS)

Figure 5 shows gender differences among LS. Females tend to feel that watching TV is easy. Males tend to consider that the Internet is reliable. Data were collected from 77 male students and 296 female students. Because of the unbalance in the gender ratio, this result gave only limited information.

## Upper secondary students (US)

Figure 6 shows gender differences among US. Females tend to consider that TV is a timely, easy type of media. On the other hand, males tend to consider that the Internet is timely and they tend to like using the Internet. Males also tend to consider that reading newspapers is easy. In this age group gender differences are clear.

## University students (UN)

Figure 7 shows gender differences among UN.

Females tend to consider that books are reliable and preferable. Males tend to consider that the Internet is reliable. Males also like to read newspapers.

## Discussion

To summarize the above, gender differences in preconceptions about media became clear. Female preconceptions are characterized by a preference for TV. As far as females are concerned, TV provides timely information (E6, US), is easy to watch (E6, LS, US, UN) and they like watching it (E5). This agrees with the findings of Dentsu (2008). The Dentsu investigation found out that females watch TV frequently. For example, $54.9 \%$ of females can list the titles of more than three serialized TV dramas. Only 29.4\% of males can do the same.

On the other hand, males' preconceptions are characterized by a preference for the Internet. As


Figure 5. Gender differences in Lower secondary students


Figure 6. Gender differences in Upper secondary students


Figure 7. Gender differences in University students
far as males are concerned, the Internet is reliable (E5, LS, UN), provides timely information (US) and they prefer to use it (US). This also agrees with the findings of Dentsu (2008). Males tend to use the Internet frequently.

Finally, the authors would like to describe a plan for the future.

Firstly, we hope to broaden investigative research into preconceptions. Our present research was limited in its range of samples, particularly among lower and upper secondary schools. To identify gender differences in perceptions about media, data should be collected from a wide range of schools and districts

Secondly, we can utilize these findings in developing curricula for media literacy. It is important that findings about gender differences should be taken into consideration in the development of media literacy curricula. A learning unit concerning a comparison between

TV and the Internet could be developed. The authors are currently developing such learning units for E5, E6 and LS.

For example, children were asked to report their daily media use. This exercise was called a "media diary." Media diaries were data which reflected each child's preconceptions about media. By using the findings relating to gender differences in preconceptions about media, we can predict and support children's reflections. Investigations into preconceptions and curriculum development should proceed in tandem. Continuing research is required.

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