

## **Personal relationships with others in cyberspace and real life.<sup>1</sup>**

Kobayashi, K., Sakamoto, A., Suzuki, K., Ando, R., Kashibuchi, M., Kimura, F.  
(Ochanomizu University, Japan<sup>2</sup>.)

### **Abstract**

One hundred and two students of a Japanese vocational school completed a questionnaire, which included the items of 1) the amount of personal relationships with others they had in cyberspace, 2) the frequency of Internet use, 3) personality variables such as social skills, shyness, and interpersonal orientation, and 4) the amount of personal relationships in real life. The results showed that the amount of relationships in cyberspace had some positive correlations with the frequency of Internet use and the amount of relationships in real life, but had few significant correlations with any personality variables.

### **Introduction**

The Internet has rapidly been becoming popular, and also various tools for communication through the network such as a pager have developed. With these tools, many people actually have text-based communication with strangers whom they have never met. For example, Parks and Roberts (1998) reported that almost all respondents who used 'MOO' (Multi-user dungeon Object Oriented) had formed a kind of personal relationships. They also reported that close relationships with friends, close friends, romantic partners, etc. were developed on line. In addition, these on-line relationships didn't differ in some properties from the relationships developed in off-line situations.

Based on the property of those tools, various educational practices have been performed. For example, there is a practice for adjusting children who did not attend school with the communication tools through the network (Kobayashi, 2000). The purpose of such practice is that the Internet can provide personal contact to the children who can not easily obtain it in real life. In the practice, there is a premise that online relationships are easier to form than offline ones. Also it is expected that the formation of online relationships can be transferred to that of offline relationships.

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<sup>2</sup> Graduate School of Humanities and Sciences, Ochanomizu University, 2-1-1 Otsuka, Bunkyo-ku, Tokyo 112-8610, Japan. Voice: +(81)-3-5978-2560. Email: kumikok@hss.ocha.ac.jp

However, previous studies have not investigated whether the premise is true or not and whether the expectation can be true or not. We therefore need to investigate it. Thus, we examined the following three questions about the premise and expectation:

- 1) Can the person who has only poor offline relationships form online relationships?
- 2) Can the person who has the personality that disturbs the formation of offline relationships form online relationships?
- 3) In addition, can the formation of online relationships be transferred to that of offline relationships?

For the question 1, we measured the amount of offline and online relationships and examined correlation between them. For the question 2, we investigated correlation between personality and the amount of online relationships. The aspects of personality were social skills, shyness, and interpersonal orientation. Shyness can be regarded as disturbing the formation of offline personal relationships, while social skills and interpersonal orientation can be regarded as promoting them. We examined whether these were supported for online relationships or not. As for the question 3, we investigated correlation between some types of internet use and the amount of online and offline relationships. Eight types of Internet use were measured: email use, web page reading, web page building, chat use, pager use, forum access, bbs access, and game play.

## **Method**

### **Respondents**

A total of 102 (90 male, 10 female and 2 missing) students at a Japanese vocational school participated. They ranged in age between 18 and 27 years ( Mean=19 ).

### **Survey Items**

As mentioned above, our questionnaire included the items of personality variables, Internet use, and the amount of on- and off-line relationships.

#### *Personality variables*

**Social Skills:** Kikuchi's Social Skill Inventory (Kikuchi, 1988) was used. This consisted of 18 items.

**Shyness:** Shyness Scale (Obuchi, 1991), which had nine items, was used. This was made, based on Cheek and Buss (1981).

**Interpersonal orientation:** Interpersonal Orientation Scale (Okajima, 1988) has four subscales, that is, emotional support, positive stimulation, social comparison, and

attention. We used two of them (emotional support and positive stimulation). This was made, based on Hill (1987).

All of three personality variables were measured using seven point scales.

*Several types of Internet use*

The types of Internet use covered in this study were as follows: email use, web page reading, web page building, chat use, pager use, forum access, bbs access, and game play. They were measured with eight point scales ranging from "I never " to "over 3 hours per day".

*The amount of personal relationships*

Respondents were asked to report the amount of offline and online relationships. The relationships with acquaintances, friends (the same and opposite sex), close friends (the same and opposite sex), and romantic partners were asked. The amount of these six types of relationships was measured with eight-point scales ranging from "none" to "over 21 persons ".

**Procedure**

The subjects were asked to answer survey questions in a group during their regular class. The survey was conducted in December, 1999.

**Results and Discussion**

**The amount of personal relationships**

Forty four of respondents (43.1%) reported that they had formed at least one personal relationship on line. The means of each type of relationship were shown in Table1. The respondents reported that they had more offline relationships than online ones.

**Table 1.** The amount of personal relationships.

	Online	Offline
Acquaintance	4.6	6.4
Friend		
<i>same-sex</i>	3.8	6.0
<i>opposite-sex</i>	2.9	3.7
Close friend		
<i>same-sex</i>	1.9	3.4
<i>opposite-sex</i>	1.4	1.6
Romantic partner	1.1	1.2

note: 1 : none, 2 : one, 3 : 2~3, 4 : 4~6, 5 : 7~10,  
6 : 11~15, 7 : 15~20, 8 : over 21

### The relation between online and offline relationships

To examine whether the person who had many offline relationships formed online relationships or not, we calculated the correlation coefficients of the amount of online relationships and that of offline relationships. The results was shown in Table 2.

**Table 2.** The correlation between online and offline relationships

		online				Romantic partner
		Acquaintance	Friend		Close friend	
offline			Same-sex	Opposite-sex	Same-sex	Opposite-sex
	Acquaintance		.34* (39)			
Friend	<i>same-sex</i>					
	<i>opposite-sex</i>			.43* (34)		
Close friend	<i>same-sex</i>				.56** (27)	
	<i>opposite-sex</i>			.34* (33)		.47* (28)
Romantic partner						

Note: the number of respondents was put in parentheses.

There were some significant relations between online and offline relationships. Especially, the correlations were strong for the online and offline relationships with the same type of persons. To understand these results, the quality of relationships should also be investigated in future research.

### The relation between personality variables and personal relationships

We noted above, social skills, shyness, and interpersonal orientation were measured as personality variables. To investigate whether these variables had relation with online and offline relationships or not, we calculated the correlation coefficients of the amount of online and offline relationships and the scores of those personality variables (Table 3). As for the online relationships, shyness had negative correlation with them as we had expected. This means that shyness could disturb the formation of offline relationships. Social skills and interpersonal formation had positive correlation with the amount of offline relationships. This means these personality variables could promote the formation of online relationships. On the other hand, shyness and social skills had no relation with the amount of online relationships. Interpersonal orientation had a negative correlation only with the amount of same-sex friends. This means that the person with higher interpersonal orientation could have the less number of same-sex online friends.

These results suggest that personality variables that can promote or disturb the

formation of offline relationships do not necessarily promote or disturb the formation of online relationships. Communication through the network might enable us to easily form personal relationships. To confirm it, we need further investigation for explaining this relation of these personality variables and formation of relationships.

**Table 3.** The correlation between personality and on/offline relationships

Relationships	Personality	Shyness	Social Skills	Interpersonal orientation
<b>Online relationships</b>				
Acquaintance				
Friend	<i>same-sex</i>			-.45**(36)
	<i>opposite-sex</i>			
Close friend	<i>same-sex</i>			
	<i>opposite-sex</i>			
Romantic partner				
<b>Offline relationships</b>				
Acquaintance		-.27**(117)	.38**(115)	
Friend	<i>same-sex</i>	-.30**(119)	.29**(117)	.22* (116)
	<i>opposite-sex</i>	-.44**(117)	.41**(115)	.19* (114)
Close friend	<i>same-sex</i>	-.21* (118)		.21* (111)
	<i>opposite-sex</i>	-.35**(117)	.19* (115)	.40**(114)
Romantic partner		-.38**(114)		.30**(111)

Note: the number of respondents was put in parentheses.

### **The relation of Internet use and personal relationships**

We examined whether each type of Internet use promoted the formation of online and offline personal relationships or not. The types of Internet use this study covered were eight: email use, web page reading, web page building, chat use, pager use, forum access, bbs access, and game play. The correlation of each type of Internet use and the amount of online relationships was examined (Table4). As for the online relationships, all types of Internet use except for the game play had positive correlation with the amount of at least one type of online relationships. This means that several types of Internet use can work to form personal relationships. On the other hand, the amount of offline relationships did not have positive correlation with all types of Internet use. They had negative correlation with the chat, pager and game play. This means that Internet use might not promote the formation of offline relationships, and therefore we may not be able to expect that the Internet is used for the educational practice

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mentioned earlier.

Finally, we had note that only correlation was investigated in this study, and therefore causation should be examined in the future research.

**Table 4.** The correlation between personality and on/offline relationships

Relationships	Internet use	Mail use	Web build	Web read	Chat use	Pager use	Forum access	BBS access	Game play
<b>Online relationships</b>									
Acquaintance			.36*(39)						
Friend same-sex				.45**(37)	.46**(37)	.50**(37)	.35*(37)	.43**(37)	
Friend opposite-sex									
Close friend same-sex					.43*(28)	.54**(28)	.46*(28)		
Close friend opposite-sex									
Romantic partner		.51**(27)							
<b>Offline relationships</b>									
Acquaintance					-.18*(186)	-.18*(185)			
Friend same-sex									
Friend opposite-sex									
Close friend same-sex									-.16*(188)
Close friend opposite-sex									
Romantic partner									

Note: the number of respondents was put in parentheses.

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