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The language of *Keitai-mail*: The sociolinguistics of Japanese mobile e-mail

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*The University of Queensland in December 2011*

The School of Languages and Comparative Cultural Studies



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## Abstract

*Keitai-mail*, e-mails exchanged through mobile phones, have become a major communication tool in Japanese daily life. In order to elucidate this aspect of the language and literacy practices of today's rapidly advancing information technology era, this study explores Japanese Keitai-mail practice among young people (prior to the smart-phone generation) and is the first study to analyse a very large data corpus of raw Keitai-mail texts.

As a significant aspect of language and literacy practice for Japanese young people, Japanese Keitai-mail have received increasing attention not only from scholars in linguistics (e.g., Miyake, 2007; Kimura, 2002; Miyamoto & Kotera, 2004) but also from government institutions involved in promotion of the national language (e.g., the Agency for Cultural Affairs (Bunkachō)). Their studies can be summarised as showing that Keitai-mail feature influences of 1) the technology itself, i.e., the specifications or physical properties of the communication medium (e.g., Sasahara, 2002; Sasaki & Ishikawa, 2006); 2) the conscious and unconscious motivations of Keitai-mail users in their Keitai-mail communication (e.g., Sugitani, 2007; Tomari, 2004; Uchida, 2004), and 3) language use and creation by young people themselves found in areas not limited to Keitai-mail (e.g., Horasawa, 2000; Kuwamoto, 2000; Senuma, 2005). The present study thus focuses on these three aspects as its baseline of investigation, using both qualitative and quantitative methods to analyse its data corpus. For the former, certain criteria from *conversation analysis* and *discourse analysis* (Fairclough's 2003 criteria) are applied.

The study investigates 43,295 Keitai-mail exchanged for the purpose of personal communication by 60 young people aged 18 to 30 who are familiar with Keitai-mail practices. The 1-to-1 ratio of male and female, the participants' domiciles in several big Japanese cities (e.g., Tokyo, Osaka), the wider spread of their places of origin and the distribution of their ages (Mean age=24.1) characterise the group of participants as a fairly randomised sample which reveals the general trend of language practice among young Japanese people.

In terms of styles, the Keitai-mail analysed consist on average of approximately 40 moji (symbols) including 3 emoticons per message, showing that composition is short but not overly abrupt – generally Keitai-mail do not finish in the middle of a sentence. Non-standard textual elements, *language plays* (LP) such as emoticons, long vowel symbols, irregular use of small moji, and non-standard use of each type of script (e.g., use of Katakana instead of Kanji) are found to be governed by the conventions of Standard Japanese and are not totally random occurrences. In addition, LP are applied in a limited manner with a certain level of systematicity in order not to interfere with communication with interlocutors. In other words, people create Keitai-mail in such a way as not to violate the interlocutor's expectation of messages (which should follow the rule of adjacency pairs) in order to maintain mutual intelligibility.

The topics (or genres) exchanged are generally to do with quotidian matters: events taking place within a short timeframe, information about themselves and what they know, and their opinions. In addition, question-and-answer exchanges are a major part of Keitai-mail. These results give clear support for the perception of Keitai-mail (or general social events exchanged by Keitai-mail) as a casual daily means of communication. Co-occurrences of genres exhibit outside influences on communication from Japanese culture and communication norms. Most Keitai-mail include emoticons as extra-textual emotional indicators, but people use only a limited set of emoticons in their exchanges.

In terms of specifications, the data show that the influence of the nature of Keitai communication as an anywhere-anytime electronic-based medium is more significant than that of the input platform itself. Senders are no longer ruled by the old restrictions of text creation but rather by the norms entailed in Keitai-mail communication: Keitai-mail should be responded to immediately but should also be a complete sentence or message. In addition, the nature of computer mediated communication (CMC) affects how people feel about messages received in this manner compared with paper-based letters. People do not simply utilise Keitai-mail as a successor to other media: rather, they use both Keitai-mail and letters as two different means of achieving their communication goals.

As for inter-group differences, Keitai-mail are found to be used differently by different age and gender groups. Women create longer texts with more emoticons and non-standard usage of language than men do. At the same time, they also change their styles of composition based on the interlocutors' gender. These differences suggest that code-switching is actively applied in Keitai-mail communication. Other differences found among different gender and age groups relate to what kind of topics they mainly discuss in Keitai-mail: the topics which they generally choose or which are even unconsciously chosen are reflections of their lifestyle.

These findings characterise Keitai-mail as a context-based literacy practice, in which people actively devise techniques to maximise the effectiveness of communication.

### Keywords

Japanese, sociolinguistics, computer mediated communication (CMC), cybercommunication, mobile phone email, cell phone email, Keitai, electronic media, emoticon

### Australian and New Zealand Standard Research Classifications (ANZSRC)

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200312 Japanese Language 20%

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## Chapter 1 Introduction

### 1.1 Thesis statement

This study investigates how Japanese people, in particular Japanese young people, use *Keitai*<sup>1</sup>-mail (mobile phone e-mail).<sup>2 3</sup> Keitai-mail, a major text-based communication method heavily used in contemporary Japanese life, constitute an important addition to literacy practices today. The research aims to uncover distinctive linguistic features of Keitai-mail messages, as well as the nature of literacy practice through analysis of large sets of such messages, combining a quantitative approach with a qualitative investigation in order to show to what extent Keitai-mail communication changes the general (or formal) usage of Japanese as a result of socio-linguistic, psychological and technical factors. This is the first such multidimensional approach to the topic.

### 1.2 Introduction

Communication technology is being rapidly enhanced in today's information society, and different types of communication media have been invented. Tanaka (2001) notes that when a new type of media emerges, this also gives rise to new expressions and rules of language, and the current rapid improvements in communication technology have indeed led to equally rapid changes in communication style using these media. The emergence of new types of communication through network technology – cybercommunication – changes language use in terms of new forms of linguistic interaction (Merchant, 2001).

Of the cybercommunication technologies available in Japan, the Keitai has dramatically increased communication among Japanese people (Hjorth, 2003). The 2009 report of the Ministry of Internal Affairs and Communications shows that more than 75% of people have Keitai, with an

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<sup>1</sup> *Keitai* (携帯) is an abbreviation of a Japanese word 'Keitai denwa (携帯電話)', which means 'a mobile phone' in English. The word 'Keitai' itself means 'portable' (adjective), but generally, Japanese people regard the word 'Keitai' when used as a single word as meaning 'Keitai denwa' or a mobile phone. Moreover, they refer to a mobile phone as 'Keitai' much more often than as 'Keitai denwa'. Therefore, it is the de-facto standard that 'Keitai' refers to a mobile phone when it is used as an independent word in Japanese society today.

<sup>2</sup> *Keitai-mail* are an application installed in Japanese mobile phones. Keitai-mail, as the name shows, are an e-mail system based on the Keitai interface. Therefore, Keitai-mail enable users to send long messages, much longer than short message system (SMS). However, because of the nature of their interface, the length of a Keitai-mail is relatively short compared with PC e-mail. Since Japanese mobile phones use Japanese language, Keitai-mail can utilize Japanese syllables including Hiragana, Katakana, Kanji, as well as Arabic numerals and the Alphabet (see Sections 1.5-6).

<sup>3</sup> Keitai-mail can be also called 'texts', 'messages', '(mobile) e-mails', so this thesis also uses these terms interchangeably other than where specifically stated as a special usage of each term. Also these terms indicate a whole composition, including a word, phrase, sentence(s), and paragraph(s).

over 90% penetration rate among those in their 20s to 40s.<sup>4</sup> The report also mentions that 83% of teenagers possess Keitai. Since NTT DoCoMo released its i-mode Internet service in 1999, the uptake of Keitai Internet connection services has been rapid (Ito, 2005);<sup>5</sup> this trend has been led by young people (Dobashi, 2005; Okada, 2005), most of whom possess and frequently communicate through Keitai, especially Keitai-mail (Sasahara, 2002).<sup>6</sup> Heavy use of Keitai-mail is thus a salient characteristic of Keitai use by Japanese young people (Okada, 2005). For example, Yamamoto, Ito and Taketsuna (2008) report that the Keitai-mail function is the most often used by university students, with phone calls rarely being used.

According to Katsuno and Yano (2002), different communication modes induce different usage of language as well as the development of new rules of communication. Therefore, it has been said that Keitai-mail communication displays its own special characteristics. Text-based communication of this kind is also an important text-based medium for people who rarely read books or equivalent text-based works (Sasahara 2002). The decline in paper-based reading was reported in a recent survey by the Agency for Cultural Affairs (Bunkachō) (2010): less than half of young respondents indicated that they read paper-based media in their normal life. In addition, the proportion of people from all generations who read paper-based media has decreased 3% within 3 years, and Internet-based media are read more often than in the past. This phenomenon strongly supports Sasahara's (2002) prediction that Keitai-mail are therefore a significant factor in considering the literacy practices of Japanese people, especially those of the younger generation. In Keitai-mail discourse, "casual and colloquial expressions ... [are generally used, which include] ... onomatopoeic words, childlike expressions, and regional dialects" (Matsuda, 2005a, p.35), for example, and these expressions typifying Keitai-mail communication appear to be exerting an influence on the overall literacy levels of young people. This is a significant issue in today's Japan, where script policies based on the assumption that people will write by hand have recently been reviewed to take account of the influence of electronic text production technologies.

The influence of Keitai text-based communication on Japanese literacy practices becomes

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<sup>4</sup> This date is the year when the researcher collected the data of Keitai-mail used in this study. The 2011 report exhibits a similar proportion to 2009, and the penetration ratio can be said to have reached saturation point.

<sup>5</sup> People can access Internet sites by using Keitai as a portable Internet access device (Gottlieb & McLelland, 2003), and young people use their phones to browse Internet sites even if they do not browse the Internet using a PC at home, since by using Keitai they can access the Internet in short bursts in between working on other things (McVeigh, 2003). In other words, Keitai provides a simpler and easier interface for network connection than the PC (Tanaka, 2001) and this convenience has dramatically increased the number of Keitai Internet users (Hjorth, 2003).

<sup>6</sup> E-mail sending is the primary 'Internet use' of Japanese Keitai users (Kohiyama, 2005; Matsuda, 2005b), although some may think that e-mail use and Internet website access are two different functions of Keitai.

even more significant when we consider that the changing social environment will inevitably increase the use of Keitai written functions in everyday settings, so that people will experience increased exposure to reading and writing through Keitai-mail. For example, most Japanese people commute to their work place using public transport, where the social norm is that people are expected to refrain from making phone calls but e-mail or other functions are acceptable (Okabe & Ito, 2005). Hama (2007) analyses this as follows: the volume of voice itself involved in a phone call is not the main factor in lack of acceptance, since someone who speaks loudly in normal conversation is less criticised than those who talk on mobile phones. Thus, it would seem that talking on a mobile phone in the 'public space' of a train or bus allows people who use the call function to step into 'intimate space' where they do not care about strangers; this complete ignoring of others in a 'public space' induces a feeling of irritation since people unconsciously have a sense of a public area as a space where one should show a degree of consideration for others sharing the space. One of the accepted norms in Japanese culture today is that people should refrain from making a phone call while on public transport.

As shown above, Keitai-mail have received growing attention to their communication nature and outcomes in terms of their technical growth as a communication channel as well as their synthesis with daily life and social practices. Communication practices have been greatly changed by Keitai-mail over this decade. Keitai-mail practice is currently shifting to the new paradigm of the smart-phones era. Analysing and re-examining pre-smart-phone Keitai-mail communication during this stage of the paradigm shift will extend our understanding of the literacy practices of Japanese people, in particular the younger generation who use Keitai as their main text communication tool with a reasonable degree of maturity since Keitai-mail communication has grown to saturation point. Keitai-mail have become a natural part of language practice which fully reflects users' language practices. This study therefore analyses authentic Keitai-mail in order to investigate this aspect of the literacy skills of young Japanese people.

### 1.3 Research questions

Based on the discussion above, the research questions of this study are as follows:

1. What are the characteristics of Keitai-mail, with particular attention to differences from standard Japanese?
2. How do psychological functions (e.g., intra/intergroup psychology such as communication with friends or acquaintances) influence writing in Keitai-mail communication?
3. How does the technological interface of Keitai affect script use and other aspects of Keitai-mail?
4. How do different gender and age groups create Keitai-mail?

#### 1.4 Limitations of the study

This section discusses the possible limitations of the study. Firstly, this study treats data collected from pre-smart-phone mobiles. Around 2010, there was a paradigm shift in mobile phones: the users of smart-phones (e.g., iPhones) have now dramatically increased in Japan,<sup>7</sup> particularly among the younger generation. Smart-phones and the mobile phones released before the smart-phone generation have significant differences in input platform and this difference changes texting practice in certain ways. Therefore, the results shown in the present study will not fully correspond with texting practice using today's smart-phones (which the reader may be familiar with).

A technical matter relating to backup system meant that this study could not achieve a backup of downloaded emoticons (*Decome Emoji*) on *au*<sup>8</sup> mobile phones, a limitation which influences some results. In addition, as Yasuhara, Ukimoto, Otsuka, Tomita and Choui (2009) point out, inter-carrier exchanges (e.g., Keitai-mail sent to *au* from *SoftBank*<sup>9</sup>) cause several aspects of inappropriate transit of emoticons such as disappearing and losing or changing meanings or impression of pictures since the number of pre-installed emoticons differs by carrier. This may influence the accuracy of interpretation of messages collected.

#### 1.5 The Japanese language

As the departure point for a discussion of Keitai-mail, this section provides general background information on the Japanese language, and the next section will introduce Keitai-mail to aid readers who may not be familiar with the Japanese language and Japanese mobile e-mail texting. Firstly, relevant aspects of the Japanese language are discussed, followed by consideration of language variation in Japanese, including that language use of young people known as *Wakamono-kotoba* and arguments related to it, discussed here in order to provide background knowledge on language used by the target participants which departs slightly from standard or formal Japanese.

For purposes of discussion, this thesis uses the Japanese counting unit *moji* (文字), which indicates one symbol in Japanese writing. In Japan, instead of counting the number of words, it is

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<sup>7</sup> The Ministry of Internal Affairs and Communications (2011a) predicted that the market share of smart-phones will increase up to 40% by the end of the year, and will extend to around 60% in 2014.

<sup>8</sup> 'au' is the name of a mobile phone company and is written in lower case, a convention also followed in this thesis.

<sup>9</sup> As with the case of *au*.

common to count moji when measuring length of writing<sup>10</sup> because written Japanese does not have spaces between words. For example, ‘Japan is an island.’ is clearly a four-word sentence in English, but its Japanese equivalent “日本は島国です。” is not counted by the number of words; instead, standard practice is to count this as eight moji (the Japanese moji count system includes punctuations). Therefore, this thesis mainly applies the moji counting system; word-number counting is only used in those places where that information is effective in describing a characteristic of language in Keitai-mail.

### 1.5.1 Aspects of the Japanese language relevant to this study

This section contains some general remarks about two aspects of Japanese pertinent to this study, namely the writing system and the system of honorifics.

The Japanese writing system consists of Hiragana, Katakana, Kanji, Arabic numerals and Romaji (or the Alphabet). Only the first three of these are official scripts but the other two are widely used as well. *Hiragana* are a phonetic syllabary. They have 46 symbols, representing five vowels and 41 consonants (Table 1.1). The five vowels in Japanese are あ(a), い(i), う(u), え(e) and お(o). Their pronunciations are shown in Figure 1.1.

Table 1.1 Hiragana

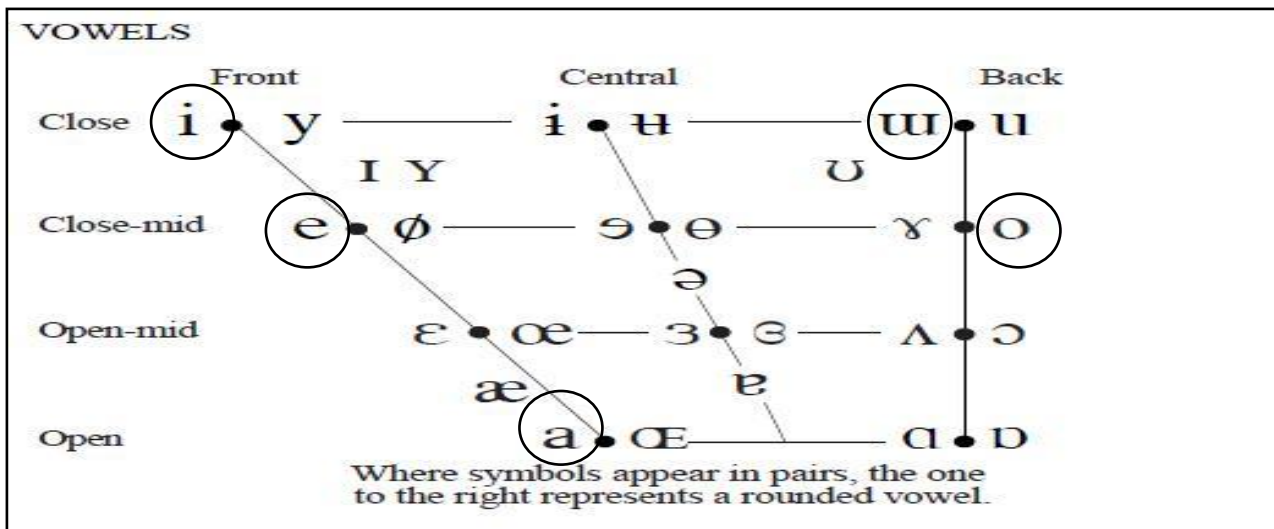
w	r	y	m	h	n	t	s	k	a	
わ	ら	や	ま	は	な	た	さ	か	あ	a
(ゐ)*	り		み	ひ	に	ち	し	き	い	i
	る	ゆ	む	ふ	ぬ	つ	す	く	う	u
(ゑ)*	れ		め	へ	ね	て	せ	け	え	e
を	ろ	よ	も	ほ	の	と	そ	こ	お	o

*Note.* There is no Japanese syllable corresponding to the blank spaces in the table. In addition, not shown in this table, ‘ん(n)’ is also a Japanese syllable.

\*In classical Japanese, there were syllables combining ‘w’ and ‘i’ (ゐ) or ‘e’ (ゑ), which are sometimes used today in proper names of old people and shops.

Except for the vowels themselves and the single ‘n’, syllables are combinations of a consonant ‘k’, ‘s’, ‘t’, ‘n’, ‘h’, ‘m’, ‘y’, ‘r’, ‘w’ and one of the five vowels: for example, か(ka) or す(su). Syllables with voiced consonants are represented by adding diacritics to the unvoiced version (e.g., た ta → だ da).

<sup>10</sup> For example, word limits for writing are usually given in moji, instead of number of words as with English and other alphabet languages.



Note. Japanese vowels are circled by the author.

Figure 1.1 IPA chart for vowels (The International Phonetic Association, 2005)

*Katakana* are also a phonetic syllabary, with the same number of symbols as Hiragana, i.e., each Hiragana symbol has a *Katakana* equivalent representing the same sound. *Katakana* are used mainly for writing vocabulary from foreign languages other than Chinese (loan words); recently, the number of loan words written in *Katakana*, which are called *Katakana words* or *gairaigo*, has been increasing rapidly.

There are two types of *Katakana* words today: those in long-term use which would cause inconvenience if they were no longer used, and those used temporarily over a certain period of time. Recently the latter have been the main factor in the tremendous increase in the numbers of *Katakana* words in Japanese (Sugishima, 2005). In addition, *Katakana* are sometimes used to write words which are not usually written in that script for purposes of emphasis in Japanese today (Crystal, 2003).

Table 1.2 *Katakana*

w	r	y	m	h	n	t	s	k	a	
ワ	ラ	ヤ	マ	ハ	ナ	タ	サ	カ	ア	a
(ヰ)*	リ		ミ	ヒ	ニ	チ	シ	キ	イ	i
	ル	ユ	ム	フ	ヌ	ツ	ス	ク	ウ	u
(ヱ)*	レ		メ	ヘ	ネ	テ	セ	ケ	エ	e
ヲ	ロ	ヨ	モ	ホ	ノ	ト	ソ	コ	オ	o

Note. In addition to the *Katakana* in the table, there is a *Katakana* 'ン(n)', which is equivalent to 'ん'.

\*In classical Japanese, there were syllables combining 'w' and 'i' (ヰ) or 'e' (ヱ). ヱ is sometimes used in proper names of old people and shops, whereas ヰ is rarely seen in modern Japanese.

*Kanji* are logographic symbols originating in China. They can be transliterated into Hiragana

in order to show Japanese pronunciation: for example the word ‘I’ is ‘watashi’, written as 私 in Kanji and わたし in Hiragana.

In some cases, difficult Kanji still cause a problem in reading even for native speakers of Japanese, and Kanji which people may not be able to read are glossed with their (usually) Hiragana readings, e.g., 私<sup>わたし</sup> or 私 (わたし). Hiragana used in this way are called *yomigana*, literally “syllables for pronunciation”.

Kanji in general have two types of pronunciation: *onyomi* and *kunyomi*. *Onyomi* means literally “pronunciation based on the sound information originally entailed in the Kanji”, i.e., an approximation of how it was pronounced in Chinese. For example, 私 is read as /shi/<sup>11</sup> in *onyomi*, but the sound /shi/ has no relationship to the Japanese word for ‘I’. On the other hand, *kunyomi*, literally “pronunciation based on Japanese meaning”, does correspond with the meaning in Japanese. 私 is pronounced as /wa ta shi/ in *kunyomi* and this associates the character with the meaning ‘I’.

A major part of Japanese writing entails a combination of Hiragana and Kanji. Supplementary Hiragana are attached to Kanji to indicate Japanese grammatical inflections and are called *okurigana*. For example, 書< /ka ku/, meaning ‘write’, has an extra < after the character 書; this < is an *okurigana*.

The number of Kanji is huge: Taishukan (2011) demonstrates that the comprehensive Kanji dictionary *Dai kan-wa jiten* (The Great Chinese–Japanese Dictionary) contains 50,000 Kanji. As a guide to Kanji use in everyday life, the Ministry of Education, Culture, Sports, Science and Technology maintains the script policy known as the List of Chinese Characters in Common Use, called in Japanese the *Jōyō Kanji Hyō*. The *Jōyō Kanji* list was most recently reviewed and slightly expanded in late 2010.

The alphabet, or *Romaji*, is also used in the Japanese writing system, although it is not an official script. One letter is used to represent each consonant and each vowel, and a Japanese syllable can thus be written in two letters (some compound syllables consist of three letters). Japanese people may choose to write their names (e.g., Taro, or Hanako) or other proper names (e.g., Tokyo, Osaka) in *Romaji*. Obata (2001) categorises the usage of the alphabet in Japanese as follows:

1. Japanese words into Roman characters (e.g., Tokyo)
2. English words (e.g., No, Taxi)
3. *Wasei Eigo* (Japan-made English vocabulary) (e.g., JR line: Japan Railway)
4. Abbreviations of English (e.g., CD)
5. Abbreviations of Japanese vocabulary (e.g., NHK: Nippon Hōsō Kyōkai (Japan Broadcasting Corporation))
6. Vocabulary other than English (e.g., pizza)

<sup>11</sup> This thesis uses slashes to enclose pronunciation of words or *moji*.

7. Quotations, including a phrase (e.g., “To be or not to be”), a title (e.g., Hamlet), and proper names (e.g., John Smith, USA)
8. Symbols (e.g., H<sub>2</sub>O)
9. Non-specific naming of a certain object (e.g., City A, Mr. X)
10. Measurement units (e.g., cm, kg)

Japanese is written with a combination of the scripts described above.

One further characteristic of Japanese relevant to this study is its complex system of honorifics called *Keigo*, literally translated as ‘words of respect’. There are several categories of Keigo (see Kaneko, 1994), which are used basically to a person older than the speaker or to a person who has a higher position in society. They are also used when meeting someone for the first time (Bunkachō, 1997, 2005; Kaneko, 1994). In addition, Keigo are used not only to show respect to more senior interlocutors (or equivalent) but also to maintain a distance from them (Horasawa, 2000).

#### 1.5.2 Standard or common Japanese and language variation in Japanese

When discussing language use and change, a certain standard is needed as a referent to allow change to be measured. In Japanese, what is standard is difficult to express in simple terms. Standard Japanese (called *Hyōjungo*) is regarded as the common language through which all people in Japan can communicate anywhere in the country, which is used in textbooks, as well as on the radio, in newspapers, in magazines, and in other forms of media. Standard Japanese is based on the dialect of the Yamanote district of Tokyo (Gottlieb, 2005) and is important for *kokugo* (national language) education because this aims to educate people to understand language correctly as well as to be able express themselves properly through the language (Imamura, 2005). Standard Japanese has been used for a long time: if people use it, they can avoid feeling uncomfortable in discussion (Usami, 2004).

Dictionaries are used as a reference point for the standard language because dictionary descriptions are accurate and are thus regarded as social recognition of language standards. Therefore, they can be used as a reference point for any trial (Kurashima, Satake, Hayano, & Kai, 2004). In addition, the language used in NHK broadcasting is also recognised as a reference for correct Japanese (Gottlieb, 2005). Other possible reference sources are school textbooks and grammar books which can be used to evaluate correctness of language use (Usami, 2004).

This Standard, or *kokugo*, is an important tool in daily communication for adults who have already acquired it, and it has personal value. Therefore, people are generally willing to change this language system if it leads to an improvement (Shiraki, 1972)

Generally, the standard variation of a language has a prestige status and is considered to be culturally, politically and economically superior. It is regarded as correct, polite and beautiful, and



people like it. Non-standard variations are sometimes argued to be incorrect, boisterous and bad (Kawamura, 1998). However, the Japanese case is not as simple as this. For example, Standard Japanese can be regarded as plain, cold and superficial, and while dialects can be regarded in a negative light, they are also regarded as beautiful, soft, polite and easy to use (Kawamura, 1998). Therefore, some people respect their dialect; others are ashamed of it (Ostheider, 2006). Whereas Standard Japanese is simple in terms of meaning and usage and direct expression, dialect distinguishes more clearly the slight differences in meaning between words (Tanaka, 1998).

In real life, since dialects are limited in their comprehensibility among speakers of different origins, Standard Japanese is used in formal settings and for communication among people from different origins, whereas dialects are used in casual communication among people from the same place (Mitsui 2004). Many people therefore code-switch between Standard Japanese and dialect based on place and purpose (Kawamura, 1998).

The difference between what is standard and what is variation is judged according to certain criteria: which variation is used by the majority, which variation has greater historical integrity, which variation is purer, and which variation has a firm and consistent system (Onaike, 2004). Therefore, Standard Japanese is judged on the population of speakers, its systematic completeness and the history of the language.

In the following discussion, the referential standard for Japanese in considering language variations among particular groups of people is regarded as the language found in textbooks and dictionaries, as well as the language used by NHK.

### 1.5.3 Language of the younger generation: Wakamono-kotoba

In addition to regional differences, people of different ages use different sorts of language. Young people in particular play a central role in creating new types of expressions. The language young people create and use is called *Wakamono-kotoba* (youth language). *Wakamono-kotoba* are a type of *Shūdango* (language in a community group) which are used in a particular social group (Yonekawa, 2002). They use different expressions from those found in the standard language, and they are defined as language used by teenagers and those in their early twenties, and not just used by a particular group of people such as those with the same hobby, but more widely. Even though some *Wakamono-kotoba* are used by the older generation, these words are still categorised as *Wakamono-kotoba* (Kuwamoto, 2003).

Kuwamoto (2003) discusses the origin of *Wakamono-kotoba* and suggests *Shūdango* as a possible origin. For example, some vocabulary in *Wakamono-kotoba* comes from the media world such as ‘kamu’ (not being able to speak smoothly) or the language in gangster groups such as ‘pakuru’ (steal). He also argues that *Sesōgo* (language representing a society and its affairs) and

*Ryūkōgo* (language popular at a particular time) make up a large part of Wakamono-kotoba, and therefore many Wakamono-kotoba are forgotten after a short period of time. Since *Ryūkōgo* represent the popular fashion of the time they are widely used and recognised in society, but are destined to disappear with the end of the fashion. While many vocabulary items found in Wakamono-kotoba at a particular time do disappear in a short while, some of them remain as part of the language of young people.

Moreover, Wakamono-kotoba are also created somehow naturally, based on the creativity of young people. There are some original creations in Wakamono-kotoba, but ‘some opportunities’ are needed for new vocabulary to be spread, and the media, such as TV and magazines, can do this (Kuwamoto, 2003). However, an interesting phenomenon relating to this media effect is that not many people feel they are influenced by the media in terms of their language use (Senuma, 2005, see p.315 for detail).

Kuwamoto (2003) analyses the characteristics of Wakamono-kotoba as follows:

1. The words are used in a wide range of applications
2. Able to do morphological inflection
3. Change of the meaning from original use of the word
4. Ambiguous
5. Not too much secret jargon
6. Not the vocabulary based on language of celebrities

As for 1, if the vocabulary can be used in many settings, it can be used many times over and integrated into general language use. Point 2 is similar: if the word can be morphologically inflected, it can be used in wider situations. On the third point, some Wakamono-kotoba have an opposite meaning from their original usage such as ‘yabai’ which originally meant ‘dangerous’ but is now also used for ‘great’.

Wakamono-kotoba include vocabulary with ambiguous meanings such as ‘kamo’ (maybe), but this is a tendency not only in Wakamono-kotoba but also the Japanese language itself, because such roundabout expression is a traditional pragmatic method in Japanese. Moreover, Wakamono-kotoba contain many words which are coded or abbreviated from the original language. However, since Wakamono-kotoba are used in natural communication, words which are overly coded or abbreviated are not used that much because the meaning of the words is too ambiguous or unpredictable, and therefore they will not be integrated in the long run. Lastly, since language used by popular celebrities is a reflection of the trend of the time, it is not retained for long term use after the trend is obsolete.

As a genre of Wakamono-kotoba, university students use and create a language which is understood mainly by the members of their university, and this language is called *Kyanpasu-kotoba* (college students’ slang) (Murata, 2005). Horasawa (2000) describes several characteristics of

Kyanpasu-kotoba, giving more concrete criteria for Kuwamoto's (2003) characteristics of Wakamono-kotoba:

1. Abbreviations<sup>12</sup> (e.g., jukukō = juku no kōshi: cram school teacher)
2. Verbs from abbreviations of noun + 'ru' or 'suru' (e.g., raiburu = library + 'ru': going to library)
3. Reduplication (e.g., sabosabosuru, which is from 'saboru' (skipping duty through laziness); the meaning of 'sabosabosuru' is 'skipping a class')
4. Peculiar emphases (e.g., oni no yō ni. 'Oni' is literally translated as 'ogre' and 'oni no yō' is 'ogre-like' then 'oni no yō ni' means 'very much')
5. Inversion in a word (e.g., jo kano = kano jo: a girlfriend)
6. Roundabout euphemism (e.g., onakunari ni naru. Literally means 'die' but here it means 'fail to make the grade')

In addition, he mentions vocabulary used in media,<sup>13</sup> in a particular club activity, expressing discomfort, and created by young people (Horasawa, 2000).<sup>14</sup> The reasons Wakamono-kotoba have such characteristics are firstly that Wakamono-kotoba are intended to be used in creating communication that has a good rhythm, increasing the entertainment aspect of language use, and strengthening friendship by using the language of a young group (Murata, 2005; Senuma, 2005). Moreover, young people use Wakamono-kotoba as substitutes for negative words, which can soften the sound of a comment. The use of such substitutions is a positive politeness strategy among young people (Murata, 2005). In terms of communication through Wakamono-kotoba, Murata (2005) points out that sufficient knowledge to be able to recall the original meaning of such Wakamono-kotoba is essential in order to understand them, and speakers and listeners therefore need to share the same knowledge base so that Wakamono-kotoba work in communication.

One possible reason young people create and use such Wakamono-kotoba is that they are sensitive to trends, so they are willing to use them to follow a trend. In addition, they also like the challenge, for non-standard and unique use of language fascinates them (Miyake, 2002).

## 1.6 Specifications of Japanese Keitai-mail

This section describes the specifications of Japanese Keitai-mail. In order to show a clearer picture of the specifications of Keitai-mail, the specifications of SMS are discussed first.

### 1.6.1 Specifications of SMS

SMS is a written-based communication medium for mobile phones which allows users to

<sup>12</sup> This can be applied to nouns, verbs, adjectives in a sentence (Senuma, 2005)

<sup>13</sup> In other words, Wakamono-kotoba include vocabulary from media because young people imitate people in media such as TV or magazines (Senuma, 2005).

<sup>14</sup> For more examples of these, see Horasawa (2000, pp. 43-68) and Murata (2005, pp. 34-37).

send a message which consists of 160 alphabet letters (per single SMS). Generally, users have to press each key several times to input their intended alphabet letter, so they need to press keys many times when they create SMS. At the same time, they can also use a 'predictive text input' called the T9 system. Through the T9, people only need to press each key once in inputting a word because the T9 judges which word users intend to input based on 1) the alphabet letters each key represents, and 2) the dictionary installed in the mobile phone (Hård af Segerstad, 2005). In both cases, users sometimes need to press the same key several times in sequence (Schneider-Hufschmidt, 2005).

### 1.6.2 Specifications of Japanese Keitai-mail

The platform of Japanese Keitai-mail is as follows: people can use Hiragana, Katakana, Kanji, the alphabet, and Arabic numerals; many emoticons are installed by default; compared to SMS (maximum 160 words), people can compose much longer texts. Since current Keitai-mail treat data as a 'bit' (or 'byte') unit (a basic unit of information storage), we cannot specify the maximum length of Keitai-mail messages. It would be possible in theory (though highly unlikely in practice), for example, for someone to create Keitai-mail around 5,000 characters in length just by using the available scripts, without the addition of emoticons.

In general, the portability and usability of a text input system are a trade-off, and mobile phones are no exception. Therefore, engineers of mobile phones have tried to increase their usability. The problems in developing the input system of mobile phones are as follows. Firstly, the text input system must be able to be used by a hand. In addition, users must be able to create texts with fewer key sets than on a PC (Irukayama, 2001).

The size of a Keitai is about 100mm in length, 50mm in width, and 25mm in depth (Hayashi, 2007). This smallness of mobile phones, as well as the limited size of the key pad, is a challenge for the Japanese Keitai input system. Japanese Keitai are usually able to input 46 Japanese symbols using 12 keys. Each button controls one line of Japanese letters (e.g., '1' is input for 'a' line, 'a', 'i', 'u', 'e', 'o', and '2' is input for 'ka' line, 'ka', 'ki', 'ku', 'ke', 'ko'). In addition, similar to the T9 system of SMS in English-based mobile input systems, Japanese Keitai have the Predictive Operation Based on Example (POBOX) as an input system. This lists words or phrases that people may intend to input from the first letter they input, based on the dictionary in the Keitai as well as on users' previous patterns of input (Irukayama, 2001)

### 1.7 Other key terms in Keitai-mail practices

Some terms related to Keitai-mail practices not yet explained in 1.5 and 1.6 are introduced here. Terms related to sociolinguistics are given in the next chapter.

Terms	Explanation
CMC	An abbreviation of <i>computer mediated communication</i> . Any form of communication through computer.
Language plays (LP)	Irregular usage of basic scripts to include some extra-textual effects.
Long vowel symbols	These symbols, e.g., ‘ー’, ‘〜’, indicate that the pronunciation of the vowel embedded in the last moji preceding them should be prolonged.
Emoticons	Emotional markers which are the combination of symbols or pictures installed or downloaded. In this study emoticons include Kaomoji, Emoji and Decome Emoji (defined below), and do not include simple symbols such as ☆ (Emoji/Decome equivalent is regarded as emoticons).
Kaomoji	Smiley-faces created by pre-installed letters
Emoji	Pre-installed picture emoticons
Decome	An abbreviated form of <i>Deco-mail</i> which “allows the user to exchange simple HTML mail ... [including] Deco-mail templates ... [and] Deco-mail pictograms in mail text” (NTT Docomo, 2011); au and SoftBank also provide similar platforms. In this thesis, the term Decome mainly indicates Decome Emoji unless otherwise specified.

## 1.8 The organisation of the thesis

The structure of the thesis is introduced briefly here in order to provide an overall roadmap for this exploration of Japanese Keitai-mail practice among young people. Chapter 1 introduces the topic and its significance, as well as essential background information. Chapter 2 reviews the literature in sociolinguistics which relates to discussion of the research questions in the present study; in particular, discourse analysis is explained in detail as a major tool for analysis in this study. Chapter 3 discusses Keitai-mail practices and related issues; Chapter 4 then explains the research methodology of the study.

Chapters 5 to 8 present the results: Chapter 5 gives the biodata of the participants, Chapter 6 looks at language use, in particular unique language uses, Chapter 7 focuses on the motivations underlying composition and communication as perceived by the participants, including influences in intergroup relationships. Emoticons are also a major focus in this chapter as a major means of imparting extra-textual meaning in Keitai-mail. Chapter 8 examines the social role differences of gender and age. The cultural background behind social practice is considered in this chapter as well as how Japanese young people perceive the Japanese language itself.

Chapter 9 discusses the results in the light of the literature reviewed in Chapters 2 and 3, in order to elucidate the nature of Keitai-mail practice through the analysis of whether and to what

extent the phenomena reported in the previous literature can be seen across a much larger data set as well as to provide further new insights into Keitai-mail communication. Finally, Chapter 10 provides the conclusion of this thesis.

## Chapter 2 Sociolinguistics and discourse analysis: the literature

Research on language in the emergent Keitai-mail medium writing is relatively new and has a complex multidisciplinary nature which encompasses linguistics, psychology, and even IT-related fields such as usability engineering and human-computer-interaction. This literature review discusses the theory and methods of fields related to the present study using classic and more current research studies. Firstly, sociolinguistics and related fields in terms of the present study are discussed (2.1); then a major analytical method in the social sciences – discourse analysis – is introduced (2.2).

### 2.1 Language in society

“Human beings do not live in the objective world alone ... but are very much at the mercy of the particular language which becomes the medium of expression for their society” (Sapir, 1929, p. 207). This is the argument of the Whorfian hypothesis and this passage indicates that language is not just a system of communication, but an instrument for cooperation within society. Language is a system of arranging one’s ideas and mental activities, but in a broad sense, it makes a person understand the norm or schema of a *speech community* (Wardhaugh, 2006).<sup>15</sup> Through language, people make sense of the world (Romaine, 2000). The Whorfian hypothesis argues that vocabulary or grammar in a particular language helps the speakers of the language (as a first language) to understand the world where the language is spoken more than speakers of another language – “language provides a screen or filter to reality” (p. 225), so that speakers organise the natural and social world around them through the support of language (Wardhaugh, 2006). The Whorfian hypothesis is controversial among sociolinguistics scholars, but this hypothesis, as well as many other sociolinguistic theories, indicates that language is significantly related to and influenced by the society in which the language is used.

This section further discusses details of social influence on language use and its outcomes as a result of interaction among speakers who are in various social relationships. This is significant for the present study since language use in Keitai-mail is a social practice influenced by various factors from the external environment as well as by the character of the user.

#### 2.1.1 Language variation and code-switching

Of course, a language need not have one-to-one correspondence with a society (Romaine, 2000), but there are many social aspects that do relate to language: race, ethnicity, gender, religion,

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<sup>15</sup> Gumperz (1968) defines a speech community as “any human aggregate characterized by regular and frequent interaction by means of a shared body of verbal signs and set off from similar aggregates by significant differences in language usage” (p. 381).

occupation, physical location, social class, kinship, leisure activities and so forth. These factors affect language variation based on asymmetrical relationships among people (Wardhaugh, 2006). For example, in many European languages, there are two variations of a pronoun that means ‘you’ when translated into English: in sociolinguistics, this variation, or distinction, is called the *tu-vous* (T/V) distinction.<sup>16</sup> Grammatically, T is singular and V is plural, which indicates a difference in number, but currently, this distinction indicates politeness and solidarity with a conversational interlocutor – T is used when the interlocutor is a familiar person and V is used in more formal situations. Another example is that people express social distance/closeness through language by various means such as use of title, calling by first name or family name or even nickname and so forth. Furthermore, people choose terms based on an asymmetric relation with others based on various social factors such as age, gender, race, social status, and relationship in family or occupation (Wardhaugh, 2006).

Since these factors decide what words or phrases people choose, people ideally need to know their interlocutors in order to communicate without ambiguity. For instance, there are two types of politeness that are chosen based on social relationships and the situation between speakers. One of them is *positive politeness* which is used in order to construct solidarity or friendship with others. In other words, positive politeness has the role of expressing positive self-image or personality to the interlocutors. The other one is *negative politeness*, including apologizing, indirect and/or formal speech, used to mediate problematic situations. The kind of language speakers choose is based on their relationship with and attitudes towards their interlocutors, and this also indicates that speakers ought to consider their interlocutors’ feelings in communication (Brown & Levinson, 1987).

Since language variation occurs based on many types of social relationship, people use different language when communicating with people in different social groups – this is called *code-switching* (Gal, 1988). Code-switching is “a conversational strategy used to establish, cross or destroy group boundaries; to create, evoke or change interpersonal relations with their rights and obligations” (p. 247). People choose a different code, or language, for the purpose of negotiation in a certain group or community in order to develop their identity. For example, code-switching serves power, solidarity, neutrality, and so forth. People also switch their code in order to re-construct an appropriate interaction mode in a situation: code-switching is a strategy to cope with society in an acceptable and appropriate manner (Gal, 1988).

To sum up, people choose language based on what they want to do or show from situation to situation in society. This creates a certain relationship between speakers in a group or society. At the

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<sup>16</sup> According to Wardhaugh (2006), T/V distinction in major European languages is as follows: French (*tu/vous*), Russian (*ty/vy*), Italian (*tu/Lei*), German (*du/Sie*), Swedish (*du/ni*), and Greek (*esi/esis*).



same time, people also choose their language based on the norm or schema in a group. Language variation and code switching are the first important criteria for analysing discourse of any form of language use, and the present study, the discourse of Keitai-medium written communication, is no exception.

### 2.1.2 Speech acts

Since language reflects social relationships and people use language “as a resource in the actual creation, presentation, and re-creation of speaker identity” (Schilling-Esters, 2002, p. 388), classifying the functions of each part of discourse is a useful method in sociolinguistics. *Speech acts* are a “minimal unit of analysis of conversational interaction” (Trudgill, 2003, p. 125). One obvious method of classification is by grammatical construction such as active or passive, or statement or question. In addition to the surface meaning based on grammar and vocabulary, an utterance also includes meaning that is implicitly contained in the surface discourse (Austin, 1975). For example, on a cold winter day, a person visits a friend’s house, which is not warm enough for him/her. At the time, if the person says “it’s cold”, this indicates not simply the fact that the temperature of the surrounding environment is low but also implies that the person wants to receive some support in order to overcome the coldness such as turning on the heater or supplying of a hot drink. This type of utterance is an *illocutionary act* or *performative utterances*, implying some intentions which speakers want to fulfil (Austin, 1975). Austin (1975) further separates them into five categories: verdictives (language use for judgement such as verdict or appraisal), exercitives (language use in authority such as ordering or warning), commissives (language use expressing promising, undertaking, and committing), behabitives (language use for ceremonial matters such as apologizing and congratulating), and expositives (language use for fitting into a given argument).

Beyond the quality of utterance by an individual person, in general utterances are not just mumbled by one person but occur in communication between two or more people. To cooperate with others, a person should choose language in order to convey their message effectively; otherwise, miscommunication occurs. Grice (1975) argues that for effective communication, people should maintain the four principles of communication – *maxims of communication*<sup>17</sup> – which consist of the maxims of quantity, quality, relation and manner. In other words, maxims of communication posit that for effective communication, the speech should “be neither more nor less than is required”; “be genuine and not spurious”; “be appropriate to immediate needs at each stage of the transaction”; “[be] clear what contribution he is making, and to execute his performance with reasonable dispatch” (p. 47). In conversation, certain assumptions are shared by speakers and listeners. Moreover, they also understand the interlocutors’ intention from their utterances. To

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<sup>17</sup> This is also called *cooperative principles*.

succeed in effective communication, people generally try to follow the cooperative principle. Furthermore, people are required to respond with what the interlocutors expect to be the answer for smooth communication. In other words, such communications do not depart from the rule of forming *adjacency pairs*. This means that when a speaker asks a question, the interlocutor should answer it, or when a speaker makes a request, the interlocutor should show their acceptance or refusal. The conversation should form an adjacency pair, and if interlocutors violate this rule, the conversation will fail (Goffman, 1976).

Effective communication depends on not only the qualities of utterances which reflect speakers' intentions and listeners' expectations appropriately but also what happens when speaker A stops and allows speaker B to speak; in other words, it manages *turn-taking* among speakers. People should think of turn-taking based on the conversational situation and the number of participants, as well as length of utterances. At the same time, people may also use different strategies to keep their own turn going, such as not using eye contact and not putting intervals between utterances (Wardhaugh, 2006).

When two or more speakers interact, dynamic functions which decide the discourse and conversational flow come into play. Social and cultural backgrounds are reflected when speakers choose their own variety of language as well as their turn. Therefore, this further gives rise to language variation based on social status, or to language change as a result of reflection on utterances in a particular social situation.

### 2.1.3 Language and social variations

Since language and society are interrelated, various social factors affect language use. This section considers several influential social factors in language use through introducing some case studies.

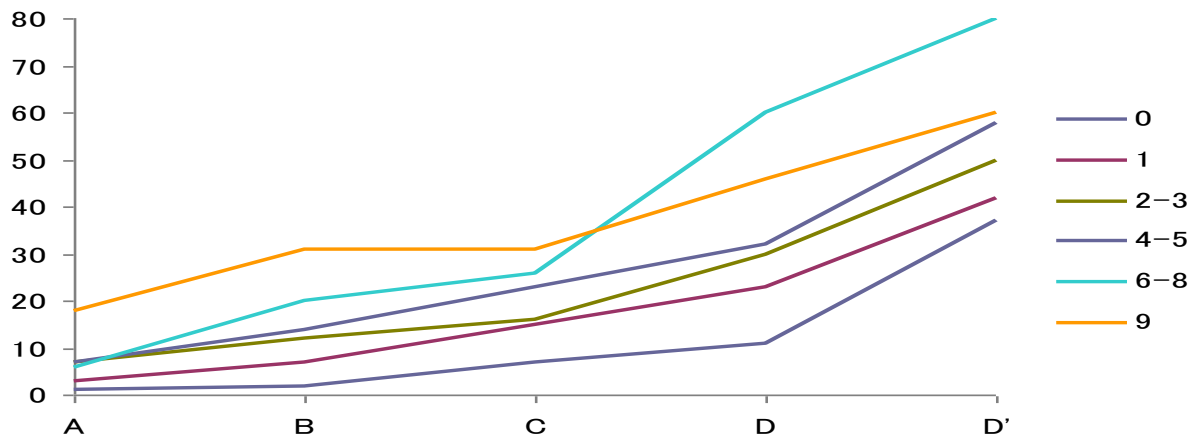
#### *Social class*

Which social class a person belongs to is generally related to what language they use. For example, table 2.1 shows the result of a U.S. study which investigates how often people in Detroit or Norwich truncate the third person singular -s (e.g., he go).

Table 2.1 Verbs without -s (Romaine, 2000, p. 71)

Social class	Detroit	Norwich
Upper middle class	1	0
Lower middle class	10	2
Upper working class	57	70
Middle working class		87
Lower working class	71	97

Another U.S. study by Labov (1966) investigates how postvocalic /r/ is pronounced by people of different classes in New York. Figure 2.1 demonstrates the result of the research.



SEC (socio-economic class) scale:

0-1: lower class

2-4: working class

5-6, 7-8: lower middle class

9: upper middle class

Style:

A: casual speech

B: careful speech

C: reading style

D: word lists

D': minimal pairs

Figure 2.1 Social and stylistic stratification of postvocalic /r/ in New York (Labov, 1966, p.240)

An interesting characteristic of this graph is that the second highest class, the lower middle class, pronounces postvocalic /r/ more than the upper middle class. This tendency, where some groups use a particular pattern of language used by another group in order to emulate that group, is called *hypercorrection* (Wardhaugh, 2006) and the pattern Labov's study shows is called the *crossover pattern* in sociolinguistics (Romaine, 2000). The reason such a crossover pattern appears can be said to be that the lower middle class is too sensitive or feels that the language spoken by the higher class is superior, so they use it excessively. Insecurity is also a reason they hypercorrect their language: they do not have enough confidence in their speech, so they tend to import higher class language into their speech (Romaine, 2000).

These case studies provide an illustration of how social class and language use are interrelated. The notion of hypercorrection shows that language use is influenced by psychological factors as well as social factors, as we shall see in Chapter 9 of this thesis.

### Age

In addition to social group, age is an important factor to consider when analysing the different uses of language. For example, Table 2.2 shows a research study in Sweden, investigating how much each age group uses a /t/ form (which is regarded as the most standard form). The pattern demonstrates that in addition to social differences, three different age groups adopt the /t/ form rule

at a different rate. The adults use the /t/ form the most in the three groups. However, interestingly, the age 7-16 group uses the /t/ form more than the age 16-20 group – the proportion is not linear. This impartial distribution of use of language between the different ages not only shows the different use of language between them but also indicates language change (Romaine, 2000).

Table 2.2 Percentage of /t/ forms in the speech of Eskilstuna schoolchildren and adults in relation to social class (Romaine, 2000, p. 82)

Social group	Age 7-16	Age 16-20	Adults
I	39.5	15.7	78
II	31.3	12.9	52
III	20.5	2.8	37

A Japanese study by Hibiya (1996) observes how people in Tokyo use /g/, which is a denasalised velar nasal stop. Figure 2.2 illustrates the result, a linear sequence of distribution. She concludes that the denasalisation is real language change since almost 100% of the younger generation use /g/ whereas the older generation does not, and the middle generation is in between. Studying differences between generations is a useful method of investigating language change.

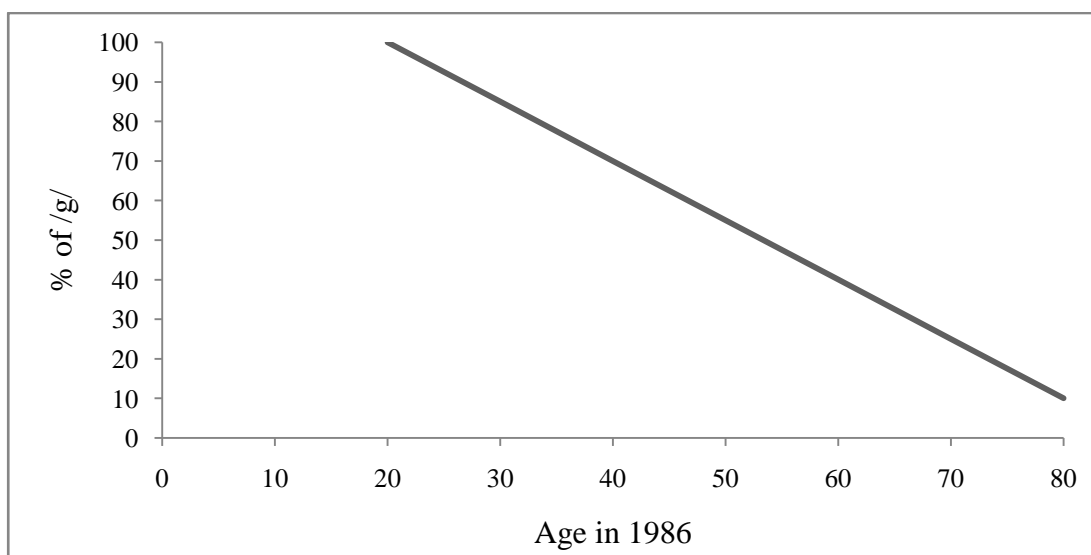


Figure 2.2 Age and use of /g/ in Tokyo (This figure is based on Hibiya, 1996, p. 163)

### Gender

Gender is a key component which influences language use. Actual use of language by men and women is different in various languages. For example, Takahara (1991) introduces a Japanese situation: women use ‘watashi’ for referring to themselves whereas men use ‘boku’ or ‘ore’. In addition, women tend to use ‘wa’ or ‘ne’ as a sentence final particle.<sup>18</sup> As another example, Brend (1975) reports that among English speakers, women express surprise or politeness using a particular intonation pattern more often than men. Lakoff’s (1973) report gives concrete examples of the fact

<sup>18</sup> However, according to Reynolds (1998), young women in Tokyo also commonly use ‘boku’ as a reference to themselves, which may stem from the influence of TV programs.

that women tend to use rising intonation (in English). She explains this phenomenon as occurring because women's use of question-like intonation is a reflection of their uncertainty about their opinion. In addition, Mills (2003) mentions that women use polite forms of language more than men.

Holmes (1998) introduces five *sociolinguistic universal tendencies* between men and women, which are 1) the different development of patterns of language use, 2) women's tendency to use language expressing affective sense, 3) women's tendency to use language for stressing solidarity, 4) women's tendency to use language for maintaining solidarity, and men's tendency to use language for increasing their power and status, and 5) flexibility of women's language use in stylistics.

Several explanations are suggested for these differences. The first is biological differences between men and women. The second is a hierarchical power relationship in society. The third is a different pattern of language and learning of behaviour by men and women – different society and different experiences. These suggestions indicate that the different use of language by men and women comes from their different social roles, and that therefore, their language use changes when the society changes. Moreover, these different social roles also indicate that women are sensitive as to how they use language. This means that women tend to use language which is used in a 'better world', the world of the people who have power, in general men, since women hope to overcome their relatively weak status; sometimes they hypercorrect (Wardhaugh, 2006).

Different language use by men and women is influenced by social-psychological dynamics, which reflect contemporary language use as well as indicating that further change is possible since society and their roles in that society are continuously changing. In another example, Itakura and Tsui (2004) report a gender difference in Japanese inter-gender conversation as that men try to control the conversation with informative topics whereas women tend to listen to the stories told by men. This can be a linguistic strategy of empowerment for men, as proposed by Holmes (1998), since they like to talk about themselves by controlling the conversation and as a result can gain more chances to talk.

As the discussion above shows, in communication, the language and expressions used are decided not only by grammatical functions but also by cultural and social aspects (Nakasaki, 2006). Therefore in communication, people exchange not only linguistic meanings but also social meanings based on region, social class, gender, age, and so forth (Kawamura, 1998). Since the present study investigates Keitai-medium written communication among Japanese people who have a variety of social statuses and in particular examines the differences these cause, the influential factors shown above, as well as the process of change, must be considered when analysing and discussing such phenomena.

#### 2.1.4 Language and identity.

Language is an important element in forming the identity of a speech community. This phenomenon can be seen widely in the history of language policy and planning. In society, generally, groups with power can impose the language they use on others; in particular, they can use national power to implement their desired language policy and planning through compulsory use of a certain language in the speech community they govern (Romaine, 2000), which further leads to the phenomenon that language policy and planning are not used only to decide which language is used in a particular country but also to develop an identity for the nation (Schmidt, 2006). This thesis does not go into the effect of language policy and planning on Keitai-mail as one of its major research questions, but this section examines how language, particularly written language, plays a role as a source of identity in speech communities.

The influence of language policy and planning is significant in language use in a speech community. Language policy and planning are not the only factors that decide which languages are spoken and used in the speech community; community members also have a strong influence on language use, or even language shift in the speech community since they also claim their identity through their language, which is sometimes different from what a language national authority implements.

For example, Yamamoto (2002) reports on the case of South Africa. In the African continent, many countries are multilingual and language policy and planning are one of the bases of all policies. Therefore, language policy and planning can be used as tools to control ethnicities as a milder means of authority, as well as functioning as a way to connect different ethnicities. On the one hand, language policy and planning have power to expand, or even impose, the use of languages throughout a speech community, but on the other hand, the people in the speech community influence the use of other non-national languages, which further changes the status of the languages in some case. In 1925, Afrikaans, a metamorphosis of Dutch influenced by the languages spoken in peripheral areas, received national status with English. This event saw the realisation of a long-cherished desire among Afrikaners, who saw themselves as different from the Dutch in Holland since their origin was the African continent. Subsequently, under Apartheid, the National Party planned to spread Afrikaans throughout the country and implemented policy based on this intention. They viewed the purpose of language education for black people as being for the purpose of controlling those people, and so the government imposed on them the heavy burden of learning Afrikaans in the education system. In addition, the black people themselves regarded Afrikaans as the 'language of the oppressor', so that many were hostile toward the policy. In the end, after Apartheid was abolished, 11 languages achieved national status, so Afrikaans lost its strong power and influence, and English, which is one of the main languages of the black people, earned

the dominant position. Ironically, English was a language that Afrikaners had suffered from in the past.

In the case of Japan, Mashiko (1991) argues that ‘standard’ Japanese and kokugo education functioned as a device to integrate Japanese into one single ethnic group. For instance, Okinawa, which has its own culture different from that of the main islands of Japan, attempted to integrate with the mainland through the use of Standard Japanese in education rather than the local language.

This study does not discuss language policy and planning directly as one of its main research foci, but historical evidence of identity formation through language of this kind provides a basis for discussing Keitai-mail communication as a means of identity construction for Japanese young people. This is further supported by Stald (2007), who argues that although mobile phones are generally perceived to be personal and private, social aspects are also entailed in shared communication through mobile technology.

#### 2.1.5 Language and literacy – Literacy as a social practice

When investigating language use, consideration of the ability to use language is also important in addition to considering discourse – what people say, exactly. *Literacy* is a key component in evaluating how proficient a person is in a certain language (or languages).

In many cases, the term ‘literacy’ is associated with reading and writing skills. The importance of literacy as reading and writing skills can be discussed in terms of the importance of written language. While spoken language lasts only short time, written language is long lasting (Barton, 2007) and because of this, a written form of language can be more restrictive about usage than the spoken form – written form enables one to judge correct use of the language. Therefore, if written language is sufficiently well formed, in other words, *standardised*, the language can be maintained and therefore this language has a good chance of avoiding change and death (Romaine, 2000). Written language also develops ideas of identity of ethnicity and nation. For example, the Vietnamese developed their current writing system so that they could use it to express their own ideas, emotions, and hopes, and this also led to an increase in their confidence in their nation, language, and culture (Fujita, 2002).

Just as language is social-based, literacy is also a social-based practice – people naturally use reading and writing in their daily lives. In other words, literacy relates to their lives and society, or, literacy exists only in a relationship with society. Therefore, rather than being solely limited to skills and abilities in reading and writing, the term ‘literacy’ also indicates the ability to apply knowledge of those skills and abilities to fulfil certain objectives based on the context where the language is used. Literacy practice is based on society and is developed based on the social context (Barton, 2007).

As a summary, Barton (2007) introduces the eight components of the social basis of literacy:

- 1 Literacy is a social activity and can best be described in terms of people's literacy practice which they draw upon in literacy events.
  - 2 People have different literacies which they make use of, associated with different domains of life. Examining different cultures or historical periods reveals more literacies.
  - 3 People's literacy practices are situated in broader social relations. This makes it necessary to describe the social setting of literacy events, including the way in which social institutions support particular literacies.
  - 4 Literacy is based upon a system of symbols. It is a symbolic system used for communication, and as such exists in relation to other systems of information exchange. It is a way of representing the world to others.
  - 5 Literacy is a symbolic system used for representing the world to ourselves. Literacy is part of our thinking. It is part of the technology of thought.
  - 6 We have awareness, attitudes and values with respect to literacy and these attitudes and values guide our actions.
  - 7 Literacy has a history. Our individual life histories contain many literacy events from early childhood onwards which the present is built upon. We change, and as children and adults are constantly learning about literacy.
  - 8 A literacy event also has a social history. Current practices are created out of the past.
- (pp. 34-35)

Keitai-mail constitute a social practice, and the concept of 'literacy as a social practice' is thus a crucial premise from which to further discuss and analyse the target discourse.

#### 2.1.6 Communication technology and language

In addition to the social factors previously discussed, the development of communication technology has been a significant factor which affects language use. In current society, the Internet has a significant impact on language use. In comparison with handwriting or the earlier typewriter, today's Internet technology enables users to use different type of expressions in their message transfer (Crystal, 2001). The language created by new technology is in some sense unique: the differences between written language and spoken language found in other uses of language cannot be applied to language on the Internet or stemming from such new technologies (Barton, 2007). Crystal (2001) introduces five distinctive features of text-based language on the Internet: graphic features, orthographic features, grammatical features, lexical features, and discourse features. 'Graphic features' refers to the factors involved in presenting a message such as colour, spacing, page design, and use of illustration. 'Orthographic features' refers to how an individual part of language is presented, such as use of capital letters, uncommon spellings, punctuations, and bold or italic style to introduce a sender's message. 'Grammatical features' refers to a different use of syntactic features from the usual 'standard' usage for conveying the message. 'Lexical features' refers to distinctive word choices such as idioms or collocations based on the message. 'Discourse features' refers to how to organise the whole message. Based on these features, language on the



Internet has distinctive characteristics (as discussed in the following section).

Not limited to using the Internet through a PC, people can use written communication via Keitai, which enables users to send SMS or e-mail (i.e., Keitai-mail). Compared to the PC, some technological challenges still remain, such as size of screen and keypad, but people adapt to this and new language variations will appear as a result of overcoming these challenges (Crystal, 2001; 2008).

In addition, since language on paper and on the Internet is different, readers use different procedures in reading texts on the Internet. Sosnoski (1998) calls reading on the Internet *hyper-reading* and this has the characteristics stated below:

Filtering: a higher degree of selectivity in reading

Skimming: less text actually read

Pecking: a less linear sequencing of passages read

Imposing: the reader's cognitive frameworks override the text's

Filming: the "... but I saw the film" response that implies that significant meaning is derived more from graphical than from verbal elements of the text

Trespassing: loosening of textual boundaries

De-authorizing: lessening sense of authorship and authorly intention

Fragmenting: breaking texts into notes rather than regarding them as essays, articles or books (pp. 135-136)

These differences can influence interpretation of texts, and they further affect how people respond to the texts in interaction. Needless to say, Keitai-medium written communication is technology-mediated, and the characteristics shown above provide important insights when analysing Keitai discourse, which has been developed based on the technological functions of Keitai.

### 2.1.7 Summary

This section has introduced social factors which influence language use. These factors are not independent of each other but interrelate and affect language use in a speech community in complex ways. The written form of language is also important when discussing language in society, since it enables language to maintain and preserve vitality because of the properties of written language which spoken language does not possess: written language lasts despite changes in interaction, and therefore the forms of written and spoken language are different. However, current IT technology decreases the difference between written language and spoken language – language mediated by IT technologies includes the characteristics of spoken language even in written communication. Consideration of new types of language and literacy practice is thus an essential component in considering language use and change or maintenance in a target speech community. In the next section, discourse analysis – how such factors are analysed in a scientific manner – is explained.

## 2.2 Discourse analysis

In the previous section, the relationship between language and society was discussed. Speakers choose a certain form of language based on the circumstances they face; language use is decided in relation to social practice. Therefore, in order to analyse or interpret a given text, it is essential to consider social practice, but at the same time, texts should be analysed in a scientific manner to elucidate appropriate and meaningful outcomes. A major method of textual analysis is *discourse analysis*, widely applied in social sciences and humanities research. In the present study, discourse analysis is a key framework used in investigating Keitai-mail in order to elucidate both language use through this medium and also influential factors in language change. It is therefore discussed in this section in detail.

In this section, firstly, two major methods of textual analysis – Conversation analysis (CA) and Discourse analysis (DA) – are discussed. After that, the methodology and criteria of DA are considered. Finally, the application of DA in the present study is stated based on the details given in this section in order effectively to answer the research questions.

### 2.2.1 Conversation analysis

Conversation analysis, analysis of verbal interaction, is a major approach or methodology used to describe and investigate the structure of interaction (Wooffitt, 2005). In a conversation, people usually expect certain interactional patterns, or adjacency pairs. In other words, expectations which are created by particular utterances lead to the next actions in a sequence. Of course, sometimes people do not behave in line with common patterns of interaction, but consideration of interactional patterns based on expectations is one of the foci in CA (Wooffitt, 2005).

CA also reveals underlying psychological functions in establishing discourse. For example, Sacks (1992) investigated a conversation over a telephone line (underlining indicates where the stress is placed in an utterance):

- A: This is Mr. Smith may I help you  
B: I can't hear you  
A: This is Mr Smith  
B: Smiths (p. 6)

In this conversation, since speaker B said “I can't hear you”, speaker A replies “This is Mr Smith” as an answer. This follows the rule of creating an adjacency pair, and seems straightforward as an interaction. Speaker A simply fulfils an expectation of speaker B. However, at the same time, Sacks analysed the utterance “I can't hear you” as an indirect refusal by Speaker B to give his/her name. In terms of an adjacency pair with the first utterance by speaker A, it is a reasonable expectation that speaker B should give his/her name since an initial interaction is generally an exchange of names.

However, speaker B asked for speaker A's name again instead of giving his/her name. This utterance went against the possible expectation of speaker A; speaker B has, through an indirect method, avoided giving his/her name. Important to note here is that the intention to avoid giving the name is only a possibility (Sacks, 1992). However, it is possible that this analysis revealed the psychological state of speaker B – he/she wanted to avoid giving his/her name. As this example shows, CA can analyse some of the underlying psychological functions of speakers. Wooffitt (2005) also mentions the relationship between CA and speech act theory; they are both keys to analysing interactional patterns as well as the underlying psychological functions of speakers (see section 2.1.2 for speech act theory).

Moreover, CA focuses on turn taking and turn allocation. There are three types of turn taking: single word turn taking, single phrase turn taking and single clause turn taking (Wooffitt, 2005). Examples of each turn taking method respectively are as follows; underlined words are the utterances used in the turn taking method (Sacks, Schegloff, & Jefferson, 1974, pp. 702-703).

#### *Single word turn taking*

Fern: Well they're not comin'  
 Lana: Who  
 Fern: Uh Pam, unless they c'n find somebody.

#### *Single phrase turn taking*

Anna: Was last night the first time you met Missiz Kelly?  
 Bea: Met whom?  
 Anna: Missiz Kelly.  
 Bea: Yes

#### *Single clause turn taking*

A: Uh you been down here before havencha.  
 B: Yeh.  
 A: Where the sidewalk is?  
 B: Yeah.

The examples shown above indicate that any length of utterance can be used for turn taking methods. In addition, Wooffitt also introduces the rules of turn taking: 1) turn taking will occur through selection of the next speaker/s by the current speaker/s or 2) by self-selection of the next speaker/s. However, if the next speaker/s do not identify or allow their turn, 3) the current speaker/s will give other turn-taking cues until the next speaker/s start their utterances.

The important premise of CA is that in conversation, listener/s are continuously interpreting speaker/s' utterances and interacting based on these interpretations. Therefore, CA also investigates how each speaker interprets utterances in interaction; in other words, CA attempts to evaluate *mutual intelligibility* (Sacks et al., 1974). One thing to note here is that turn projections in Japanese are not the same as with English because the syntactic structure of the Japanese language leads to

delay in projection (Tanaka, 2000). This difference to a certain extent differentiates CA in English from that in Japanese, but since this study analyses Keitai-mail as semi-synchronic communication (as discussed in a later chapter) in which each speaker is able to complete creating his/her message, the criteria shown above can reasonably be assumed not to be significant to the analysis of interactions.

CA is a method of investigation of how conversation is created, under what kind of rules with what psychological motive. Communication through Keitai, in particular Keitai-mail exchange, has an interesting nature which encapsulates the properties of both non-real-time interaction and real-time interaction. Quick response through Keitai-mail is a kind of conversation which is not exactly seamless, but is an exchange during real time to a certain extent, meaning that interactional patterns between sender and receiver should be observed. In particular, mutual intelligibility is an important factor in understanding why the two use certain utterances in Keitai-medium writing; since they cannot see each other, the speaker needs to interpret carefully what the sender has written. The present study investigates these aspects through interpreting how each Keitai-mail functions in the context of various timeframes and circumstances from both senders'/receivers' viewpoints, including messages not only shown in language itself but also in extra-textual expressions involving LP as well as other meaning indicators which reflect certain aspects such as timing. These aspects can be viewed within the framework of a sequence of messages, making the methods of CA useful techniques for the present study.

### 2.2.2 Discourse analysis

Discourse analysis also examines a given text, but compared to CA, the focus is different. Basically, CA mainly analyses a conversation or its transcript, whereas DA treats a wider range of varieties of language practice. In other words, CA focuses on actions in conversation when they occur, but DA seeks peripheral influences on discourse in addition to analysing an actual text in terms of linguistic structures (Wooffitt, 2005). Therefore, linguistic analysis is not the only focus of analysis; the related factors that influence creation of discourse such as social structures are also an essential part of text analysis (Fairclough, 2003). As an example of DA, Gilbert and Mulkay (1984) analysed the following discourse from scientists:

A long held assumption concerning oxidative phosphorylation has been that the energy available from oxidation-reduction reactions is used to drive the formation of the terminal covalent anhydride bond in ATP [adenosine triphosphate]. Contrary to this view, recent results from several laboratories suggest that energy is used primarily to promote the binding of ADP and phosphate in a catalytically competent mode and ... to facilitate the release of bound ATP (p. 41).

The above script is a part of research paper. The following script is from an informal interview with a scientist:

But Waters didn't believe any of it. None of it. He'd been brought up with the chemical theory. He'd made several contributions to that. He'd interpreted all his work on [a particular reagent]<sup>19</sup> in terms of it, in a complicated way. He was a great friend of Watson's. He knew Gowan. It was American anyway. The chemiosmotic theory, as far as he was concerned, was a little bit of a joke (p. 65).

These two scripts both mention scientific research work, but expressions or repertoires of language are systematically different. In the former, the scientist used the formal or *empiricist repertoire*. The characteristics of this discourse are using formal language (e.g., “long held assumption ...”, instead of “Dr Evans believes that ...”) and describing objective facts through a reliable research method (e.g., “the experiment confirmed ...” instead of “Janet's results indicated ...”). They distinguish between results of scientific work and other information such as common sense or personal feeling about the result (Wooffitt, 2005).

On the other hand, *contingent repertoire* is used in the latter discourse. Therefore, words and phrases containing biographical information (e.g., “He'd been brought up with the chemical theory”) and personal interpretations (e.g., “He'd interpreted...”) as well as social factors (e.g., “He was a great friend of Watson's” ) appeared in the latter discourse. Comparing these repertoires, the empiricist repertoires are discourse that attempts to describe objectiveness and universality, whereas the contingent repertoire includes more personal-oriented discourse in terms of scientific works (Wooffitt, 2005).

DA also reveals some pragmatic differences in language use based on social structures. Gee (2005) re-examines the data from his research team (from Gee & Crawford, 1998; Gee, 2000; Gee et al., 2001) which came from middle-school teenagers, half of whom were upper-middle class family members and the rest working-class family members. He focuses on identities of participants in this re-examination; in particular, he emphasises how they use the personal pronoun ‘I’ to construct their identity. He categorises the usage of ‘I’ into the following five categories: ‘cognitive statements’, ‘affective statements’, ‘state and action statements’, ‘ability and constraint statements’, and ‘achievement statements’ (pp. 141-142, for details, see the original text). Based on this categorisation, Wooffitt (2005) finds that the working-class students used ‘I’ as a means of affective, ability-constraint, and state-action statements much more than the students from the upper-middle class. For cognitive and achievement statements using ‘I’, the pattern is the opposite. From these results, he concludes that the upper-middle class students focused more on matters around them

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<sup>19</sup> The parentheses here are direct quotation from the original text.

such as their abilities and evaluation, whereas the working-class students gave a higher priority to interaction with their surroundings. He also notes that teenagers from different social classes create different worlds.

As these examples show, DA can analyse a variety of features of text: linguistic features (what types of language [vocabulary, grammar, etc.] appear), writers' intentions (why they choose a certain discourse, with what motivation), surrounding influential factors on discourse (what kind of external factors contribute to the creation of discourse in a certain way), and so forth.

As a branch of DA, critical discourse analysis (CDA) is widely adopted in linguistic and sociolinguistic research. CDA investigates "how social and political inequalities are manifest in and reproduced through discourse" (Wooffitt, 2005, p. 137), so CDA "is concerned with continuity and change at this [social structuring of language] more abstract, more structural, level, as well as with what happens in particular text" (Fairclough, 2003, p. 3). For example,

Pap said Bekescsaba was situated on the cross-roads of the trans-European traffic network, serving as the nation's south-eastern gateway to central and eastern Europe. 'Because of its geographical position, Bekescsaba is an excellent choice in this region for investment and for locating businesses that want to penetrate the market in this part of the world,' he added. (p. 113)

This discourse contains a political intention to promote the city as a place for investment. The word 'gateway' attempts to give an impression of the city as a central place in Europe. The phrase "penetrate the market" is intended to impress readers, with the result of investment for the city. Such discourse has promotional roles and this is an underlying message and intention of the text (Fairclough, 2003).

There are several analytical methods used in researching texts – CA, DA, and CDA have been discussed in this section. For the present study, preserving the distinction between them is not essential; rather, since this study investigates multidimensional aspects of texts or discourse (linguistic features, interactional structures, individual/group differences, genres of discourse), it adopts certain criteria from both CA and DA in order to answer its research questions. Therefore, in the following discussion, the researcher re-defines the term *discourse analysis* as used in this particular research as:

*Discourse analysis is a method of analysis of 'text' (meaning any form of language) that investigates linguistic features and architectures of interaction in terms of language use, as well as elucidates influential internal and external factors on how a certain discourse is created.*

In the following sections, the term discourse analysis and its abbreviation DA are used in the sense

of this definition.

### 2.2.3 Criteria for discourse analysis

Once the concept of DA is clarified, we need to understand how to interpret given texts in order to elucidate characteristics and underlying backgrounds of discourse effectively and appropriately. Simply put, there are just two steps: analysing the form, and then analysing content (Denzin, 1998). However, if discussed in more detail, there are criteria for DA which direct what aspects of text or what influential factors researchers should consider. For instance, Gee (2005) suggests the *seven building tasks* which consist of significance, activities, identities, relationships, politics, connections, and sign systems and knowledge. ‘Significance’ refers to how people use language to give significance to things or matters. ‘Activities’ indicates that language use is an engagement in a certain activity in a certain situation. ‘Identities’ means that language use decides the personalities or characters of speakers in a certain situation. ‘Relationship’ is the distance created through language use between a person and others. ‘Politics’ gives some perspective to targets. ‘Connections’ are criteria for considering the relationship between language use in a certain situation and any other related factors. ‘Sign systems and knowledge’ refers to any type of thought-transfer method. Detailed definitions of each building task by Gee are shown in Table 2.3.

Table 2.3 The seven building tasks: definition (Gee, 2005, pp. 97-101)

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<ul style="list-style-type: none"> <li>• Significance: how and what different things mean – the sorts of meaning and significance they are given – is a component of any situation</li> <li>• Activities: some activity or set of activities is a component of any situation (the specific social activity or activities in which the participants are engaging; activities are, in turn, made up of a sequence of actions)</li> <li>• Identities: any situation involves identities as a component, the identities that the people involved in the situation are enacting and recognizing as consequential</li> <li>• Relationships: any situation involves relationships as a component, the relationships that the people involved enact and contract with each other and recognize as operative and consequential</li> <li>• Politics (the distribution of social goods): any situation involves social goods and views on their distribution as a component</li> <li>• Connections: in any situation things are connected or disconnected, relevant to or irrelevant to each other, in certain ways</li> <li>• Sign systems and knowledge: in any situation, one or more sign systems and various ways of knowing are operative, oriented to, and valued or disvalued in certain ways</li> </ul>
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This framework gives a reasonable guideline for researchers when considering which information they should focus on. Fairclough (2003) also gives guidelines for DA. The set of criteria he proposes is predicated upon conducting CDA. However, since CDA aims to investigate the “social structuring of language” (p. 3) in a target discourse (Fairclough, 2003), the criteria for

CDA may be directly adopted for any type of discourse analysis (a limited set of criteria may be adopted based on the research's purpose). Fairclough also states that if a given text is not closely analysed, it is impossible to understand how social effects influence discourse in a real sense (Fairclough, 2003). This statement indicates that Fairclough's method is intended to and enables us to interpret discourse in a non-superficial manner, which is the aim of all DA. In addition, Fairclough's criteria can be regarded as a more detailed set of questions interpreting Gee's (2005) criteria which describes more abstract or broader perspectives on the nature of texts or discourse. Therefore, they are an important guideline for implementing textual analysis in social sciences and humanities research. The criteria that Fairclough suggested are set out in Table 2.4.

Table 2.4 Fairclough's (2003) criteria for textual analysis (pp. 191-194)

- 
- Social events
    - What social event, and what chain of social events, is the text a part of?
    - What social practice or network of social practices can the events be referred to, be seen as framed within?
    - Is the text part of a chain or network of texts?
  - Genre
    - Is the text situated within a genre chain?
    - Is the text characterized by a mix of genres?
    - What genres does the text draw upon, and what are their characteristics (in terms of Activity, Social Relations, Communication Technologies)?
  - Difference
    - Which (combination) of the following scenarios characterizes the orientation to difference in the text?
      - a) an openness to, acceptance of, recognition of difference; an exploration of differences, as in 'dialogue' in the richest sense of the term
      - b) an accentuation of difference, conflict, polemic, a struggle over meaning, norms, power
      - c) an attempt to resolve or overcome difference
      - d) a bracketing of difference, a focus on commonality, solidarity
      - e) consensus, a normalization and acceptance of differences of power which brackets or suppresses differences of meaning and over norms
  - Intertextuality
    - Of relevant other texts/voices, which are included, which are significantly excluded?
    - Where other voices are included? Are they attributed, and if so, specifically or non-specifically?
    - Are attributed voices directly reported (quoted), or indirectly reported?
    - How are other voices textured in relation to the authorial voice, and in relation to each other?
  - Assumptions
    - What existential, propositional, or value assumptions are made?
    - Is there a case for seeing any assumptions as ideological?
  - Semantic/grammatical relations between sentences and clauses
    - What are the predominant semantic relations between sentences and clauses (causal – relation, consequence, purpose; conditional; temporal; additive; elaborative; contrastive/concessive)?
-



Table 2.4 (Continued)

- 
- Semantic/grammatical relations between sentences and clauses
    - Are there higher-level semantic relations over larger stretches of the text (e.g. problem-solution)?
    - Are grammatical relations between clauses predominantly paratactic, hypotactic, or embedded?
    - Are particularly significant relations of equivalence and difference set up in the text?
  - Exchanges, speech functions and grammatical mood
    - What are the predominant types of exchange (activity exchange, or knowledge exchange) or speech functions (statement, question, demand, offer)?
    - What types of statement are there (statements of fact, predictions, hypotheticals, evaluations)?
    - Are there 'metaphorical' relations between exchanges, speech functions, or types of statement (e.g. demands which appear as statements, evaluations which appear as factual statements)?
    - What is the predominant grammatical mood (declarative, interrogative, imperative)?
  - Discourses
    - What discourses are drawn upon in the text, and how are they textured together? Is there a significant mixing of discourses?
    - What are the features that characterize the discourses which are drawn upon (semantic relations between words, collocations, metaphors, assumptions, grammatical features)?
  - Representations of social events
    - What elements of represented social events are included or excluded, and which included elements are most salient?
    - How abstractly or concretely are social events represented?
    - How are processes represented? What are the predominant process types (material, mental, verbal, relational, existential)?
    - Are there instances of grammatical metaphor in the representation of processes?
    - How are social actors represented (activated/passivated, personal/impersonal, named/classified, specific/generic)?
    - How are time, space, and the relation between 'space-times' represented?
  - Styles
    - What styles are drawn upon in the text, and how are they textured together?
    - Is there a significant mixing of styles?
    - What are the features that characterize the styles that are drawn upon ('body language', pronunciation and other phonological features, vocabulary, metaphor, modality or evaluation)?
  - Modality
    - What do authors commit themselves to in terms of truth (epistemic modalities)? Or in terms of obligation and necessity (deontic modalities)?
    - To what extent are modalities categorical (assertion, denial etc.), to what extent are they moralized (with explicit markers of modality)?
    - What levels of commitment are there (high, median, low) where modalities are modalized?
    - What are the markers of modalization (modal verbs, modal adverbs, etc)?
  - Evaluation
    - To what values (in terms of what is desirable or undesirable) do authors commit themselves?
    - How are values realized – as evaluative statements, statements with deontic modalities, statements with affective mental processes, or assumed values?
-

Based on certain of the criteria shown above, the present study analyses and interprets its target discourse in order to elucidate the particular nature of Keitai-medium written communication and to predict its impact on language use for Japanese-language users, as well as related social practices.

#### 2.2.4 Discourse analysis in this study

DA being a major part of the analysis in the present study in order to answer the research questions, in this section, its role and significance are clarified in relation to those questions. In this thesis, DA is not used to analyse blocks of text from the data: rather, certain of Fairclough's criteria for DA which are relevant to the research questions of this study, such as styles or genre,<sup>20</sup> are applied to the data corpus as a whole in order to analyse overall tendencies in aspects of the nature of Keitai-mail discourse, rather than focusing on individual texts. Where the definition of such criteria differs from that used by Fairclough, the definition used in this study is clearly set out. This study sets out to investigate the characteristics of texts produced using Keitai, specifically Keitai-mail.

The main focus in the first stage is the text itself, and the linguistic approach in DA will be applied. For example, the criterion of styles (also further defined as “the discursual aspects of ways of being, identities” by Fairclough, 2003, p.159, and in this thesis used to refer specifically to the styles of CMC) investigates how language and other expressions are used in Keitai-mail, whether standard or not, and to discuss these characteristics of language in relation to semantic/grammatical relations and exchanges, speech functions and grammatical mood will further reveal the overall nature of Keitai-mail texts. This is important not only to observe just whether expressions in Keitai-mail are standard or not, but also to consider the function of these elements of composition.

In addition, communication through Keitai-mail is not seamless but is an interaction between people – it has the characteristics of discourse through semi-interaction which is somewhere in between real-time, face-to-face conversation and no-real-time communication such as the exchange of paper-based letters. Keitai-mail are exchanges, and have the property of conversation, as a type of ‘communication technology’ involving two-way mediated communication; Fairclough (2003) introduces ‘chat’ as an example of this type of conversational dialogue. He mentions the criteria for analysing this type of communication as turn and interaction as well as interpretation of the texts exchanged themselves, to be utilised in order to seek how interactions progress and how they are maintained or terminated. CA focuses mainly on these characteristics in a targeted discourse; CA techniques and concepts (which are explained separately in Section 2.2.1) are used in this thesis in conjunction with DA criteria to analyse the architecture of interactions between interlocutors in

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<sup>20</sup> The technical terms of Fairclough's criteria are underlined in order to distinguish those terms from general usages.

Keitai-mail exchanges.

This study also considers matters beyond the texts themselves. Motivation for using a certain type of expression is one of its topics of interest. Genres in the criteria are a major factor in seeking to determine the intention behind each message in Keitai-mail, in order to understand “actional meanings and forms of a text, discourses in representational meanings and forms, and styles in identificational meanings and forms” (Fairclough, 2003, p. 67). Moreover, the expressions used change in accordance with a variety of social factors. Methodological techniques of DA provide the criteria to investigate these influential factors in given texts or language. Social events are key to perceiving background influences on Keitai-mail since “[l]anguage ... is an element of the social at all levels” (Fairclough, 2003, p. 24).

This study analyses not only aspects of the Keitai-mail texts themselves but also the answers to the open questions of the questionnaire (see Chapter 4 and Appendices A and B). Criteria such as modality and evaluation are mainly applied in this stage since these criteria relate to underlying motives in Keitai-mail communication.

Some criteria are not directly applied using Fairclough’s original definition but are instead adjusted to be useful in answering the research questions of this study. For example, difference in this study focuses not on Fairclough’s meaning of how difference itself is treated in the texts themselves but rather on analysis of how different groups engage in Keitai-mail practice. In terms of intertextuality, the collected data corpus (presented in Chapter 5) does include Keitai-mail which mention statements by others such as forwarded mails or those referring to quotations (see definition in Chapter 7). However, this study focuses on the language used by the senders themselves (whereas such intertextuality is seen in forwarded messages), and there are very limited cases referring to the words of others in the texts created by senders.<sup>21</sup> Therefore, intertextuality is not discussed in this thesis because it is not a main interest of the study. Assumptions is also not discussed in the thesis because this involves “the implicit meaning of texts” (Fairclough, 2003, p. 212) and this study does not investigate the detailed meaning of each text.

When investigating the language of Keitai-mail discourse, influences from the Keitai interface or functions are inevitably ignored. This study, however, also handles these influences by careful application of criteria to analysing particular aspects of discourse. Language use in Keitai-mail is an aspect of social practice and this is the main reason the present study adopts discourse analysis as an analytical method. Through applying certain of the criteria introduced in

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<sup>21</sup> There are only 55 instances of quotation in the target texts, equivalent to 0.053% of the total genres appearing (see Chapter 7). In addition, most of them are used in a signature block. Therefore, it is assumed that to exclude the analysis of the influence of intertextuality on the language of Keitai-mail is not significant in the overall sense in terms of investigating the research questions.

Table 2.4, this study elucidates the discourse of Keitai-mail as “ways of representing the world” (Fairclough, 2003, p. 133), finding interesting and important aspects of the nature of language use and related factors in Keitai writing.

### 2.3 Conclusion

This chapter has reviewed basic theories in sociolinguistics and discourse analysis. The sociolinguistic theories discuss aspects of the relationship between language and the society or culture where the language is used. The method of discourse analysis provides a framework which enables researchers to analyse and interpret language use in a particular context. The next chapter will review the literature which investigates both the language of Keitai-mail and issues relating to language use in Keitai-mail.

## Chapter 3 Language in Keitai-mail: the literature

This chapter reviews the literature on the characteristics of Japanese Keitai-mail, including external influences affecting the style of discourse in this mode of communication. The first part of the chapter introduces language in cybercommunication generally, based on the literature which has investigated PC-mediated cybercommunication in English and other alphabet-based languages. The discussion then moves to the language of SMS communication. Finally, this section discusses language in Japanese Keitai-mail.

### 3.1 Language in cybercommunication

In cyberspace, people communicate through writing, but when communication occurs only in writing it is rather difficult to understand the interlocutors' intentions correctly. This is because in face-to-face communication people depend heavily on non-verbal cues, in particular facial expressions. For example, Mehrabian (1972) suggests that messages conveyed by verbal, vocal and facial expressions account for 7%, 38%, and 55% respectively of face-to-face communication,<sup>22</sup> and this shows the importance of non-verbal cues in communication.

To overcome a lack of non-verbal cues in cybercommunication, users create new types of non-verbal cues based on a combination of available sources. Moreover, as a text-writing platform, today's cyberspace enables people to use various special characters. In addition to general types of characters (i.e., Hiragana, Katakana, Kanji, Arabic numerals, and alphabets), this platform provides special icons known as emoticons, which convey certain emotions through graphics.

Miller (2004) notes that new types of expression are also created just by using the characters provided, especially by the younger generation. One particular example she gives is *Kaomoji*, such as joy (^ ^) and sadness (>\_<). These expressions have increased in number and now influence written texts.

As for other features of cybercommunication, Nishimura (2003) summarises the characteristics of texts written via digital medium based on Danet's (2001) summary of the features of digital writing. Her summary shows that Japanese-based written expression has its own unique features – it is similar in some ways to, but different from English-based written scripts (for details, see Nishimura, 2003). One reason Japanese people use these characters is that they regard them as an effective way to get the message across (Matsuda, 2005a).

In communication through Keitai-mail, users know with whom they are communicating, so the written context can be simpler; for example, they do not need to explain all the things that would be needed in communication with others (strangers) and also do not hesitate to use

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<sup>22</sup> Also called 'the 7%-38%-55% Rule' (e.g., Nakao, 2008).

abbreviations or equivalents since their relationship is close enough for it not to be considered rude if they do so (Sasahara, 2002). On the other hand, people do not exhibit these habits in communication with strangers through Internet bulletin board system (BBS) (Katsuno & Yano, 2002). Sugimoto and Levin (2000) mention that “Japanese writers are afraid they are saying something too strongly ... [because] of the Japanese cultural value of modesty in communication” (p. 144). This indicates that Japanese prefer to use softer expressions in communication with strangers (Katsuno & Yano, 2002).

In addition to mode differences, psychological functions change expressions; in particular, closeness with interlocutors (and entailed psychological reactions to them) influence how people use the scripts. For example, Katsuno and Yano (2002) investigates how Kaomoji are used in cybercommunication. This study shows that Kaomoji are used for softening the tone of discourse, and are regarded as an effective method of expressing feelings; however, regardless of these convenient functions, Kaomoji are only used in communication with close friends when sending e-mail. Users feel strange or even irritated when they receive messages with Kaomoji from non-close friends or from people senior to them in terms of age and/or position.

However, when people move beyond e-mail communication with an identified person (i.e., to communication under anonymous conditions), different psychological functions occur: communication with strangers under anonymous conditions blurs the psychological separation between strangers and friends – the so called *intimate stranger* – and this Internet interpersonal relationship affects communication (e.g., defamation on Internet BBS)(Tomita, 2005). Tomita (2005) also points out that anonymity enables users to depict themselves as the person they want to be. This psychological function can be a factor which influences discourse since the discourse, what they write, decides their identity on the Internet.

In general, CMC is a medium which can express emotion based on manipulation of timing of messaging and using non-verbal cues such as emoticons (Kato, Kato, & Akahori, 2006b). This emotion sometimes will be too intense, such as in fighting, the same as in face-to-face communication; at the same time, a message in an electronic format remains on the computer or mobile phone, so sometimes it affects relationships with others more significantly than face-to-face communication does (Fujimoto, 2006).

In some cases, politeness strategies are also adopted in CMC. Morand and Ocker (2002) give a comprehensive example of how people apply politeness strategies in CMC. Tables 3.1-2 summarise the tactics they use and give example phrases for each tactic. These tables indicate that negative politeness is based on the choice of expression using formal language rules, whereas positive politeness is attempted through language plays (LP), in addition to selection of register.

Table 3.1 Tactics of negative politeness in computer mediated communication (Morand & Ocker, 2002, p. 3)

Tactic	Example
1. Be conventionally indirect; inquire into the hearer's ability or willingness to comply.	<u>Can you</u> tell me what time it is?
2. Use hedges: words or phrases that diminish the force of a speech act.	Can I <u>perhaps/possibly</u> trouble you?
3. Use subjunctive to express pessimism about hearer's ability/willingness to comply.	Could I ask you a question?
4. Use words or phrases that minimize the imposition.	I need <u>just a little</u> of your time.
5. Give deference by using honorifics: Sir, Mr., Ms., Dr.	Can I help you, <u>Sir</u> .
6. Use formal word choices to indicate seriousness and to establish social distance.	Could you tolerate a slight imposition on my part?
7. Apologize: admit the impingement, express reluctance.	<u>I am sorry</u> to bother you, but..."
8. Impersonalise the speaker and hearer by avoiding the pronouns "I" and "you."	Is it possible to request a favor?
9. Use the past tense to create distance in time.	I <u>had been wondering</u> if I could ask a favor.
10. Nominalize (change verbs & adverbs into adjectives or nouns) to diminish speakers' active participation.	<u>My asking</u> you to leave is required by regulations.
11. State the FTA as a general rule.	<u>Regulations require</u> that I ask you to leave.

Table 3.2 Tactics of positive politeness in computer mediated communication (Morand & Ocker, 2002, p. 4)

Tactic	Example
1. Notice hearer's admirable qualities or possessions, show interest, exaggerate.	Hey love your new Palm-pilot, can I borrow it sometime?
2. Employ phonological slurring to convey in-group membership.	<u>Heya, gimme</u> a hand with this <u>willya</u> ?
3. Use colloquialisms or slang to convey in-group membership.	Most are <u>damn</u> hard, but this one should be a <u>piece-of-cake</u> .
4. Use ellipsis (omission) to communicate tacit understandings.	(Do you) "Mind if I join you?"
5. Use first name or in-group name to insinuate familiarity.	Hey <u>Bud</u> , have you gotta minute?
6. Claim common view: assert knowledge of hearer's wants or that hearer has knowledge of speaker's wants.	You know how the janitors don't like it when...
7. Seek agreement; raise or presuppose common ground/ common values; engage in small talk/ joke.	How bout that game last night? Did the Ravens whip the pants off the Giants or what!
8. Give reasons: assert reflexivity by making activity seem reasonable to the hearer	I'm really late for an important appointment, so ...
9. Use inclusive forms ("we" or "let's") to include both speaker and hearer in the activity	<u>We're</u> not feeling well, are <u>we</u> ?
10. Assert reciprocal exchange or tit for tat.	Do me this favor, and I'll make it up to you.
11. Give something desired - gifts, sympathy, understanding.	You look like you've had a rough week.

Further to communication strategies, more fundamentally, the influence of cybercommunication on off-line or in-person relationships has occasioned great debate (Pollet, Roberts, & Dunbar, 2011). Some scholars regard cybercommunication as an effective medium for enhancing a relationship (Cyberoptimism). For instance, Boase, Horrigan, Wellman, and Rainie (2006) suggest that cybercommunication is an effective channel for retaining and improving interactions with people; in particular, cybercommunication provides an occasion to connect with extra networks, and *network individualism* of reliance on multiple networks is promoted. Other scholars view the impact of cybercommunication as negatively affecting the off-line relationship (Cyberpessimism); Nie and Hillygus (2002) in particular have argued this in their *time displacement hypothesis*.

Pollet et al. (2011) re-examine this issue, and argue that in comparison with off-line communication, instant message (IM) communication neither improves emotional closeness with interlocutors nor extends communication networks. They attribute their study's finding against cyberoptimism to age-specific effects present in earlier studies and argue that use of CMC will facilitate communication for those who are extremely shy. Based on this argument, Japanese as relatively self-effacing people who value non-directness may benefit by this extra opportunity for communication other than off-line, and the positive effects of cybercommunication on network-based relationships reported (as discussed later) are highly probable.

Considering the inter-relationship between Internet use and people networks, Zhao (2006) recommended that researchers should distinguish between Web, e-mail, and chat. Thus, Keitai-mail should be discussed independently as a mode different from other CMC. The case of Japanese Keitai-mail is further discussed in Section 3.3.

The characteristics shown above refer mainly to Japanese CMC, but CMC research has been conducted on a variety of language platforms and countries such as Egypt (Warschauer, Said, & Zohry, 2007), France (Anis, 2007), Germany (Androutsopoulos, 2007), Greece (Koutsogiannis & Mitsikopoulou, 2007; Tseliga, 2007), Gulf Arabic countries (Palfreyman & Al Khalil, 2007), Hong Kong (Lee, 2007), Portugal (Oliveira, 2007), Spain (Climent, More, Oliver, Salvatierra, Sanchez, & Taule, 2007), Sweden (Axelsson, Abelin, & Schroeder, 2007), Switzerland (Durham, 2007), Taiwan (Su, 2007), and Thailand (Panyametheekul & Herring, 2007). Needless to say, English is the language that dominates the Internet, and many CMC studies are based on English-language CMC (Danet & Herring, 2007). Danet and Herring (2007) suggest certain commonalities of CMC communication which appear across the different languages and platforms: 1) CMC is influenced by the writing system available in each platform, 2) there are different language uses and communication patterns based on gender, 3) code switching is seen in CMC as in face-to-face conversation, and 4) English is used as a lingua franca in communication between people who



speak different native languages.

The examples shown above refer to a limited part of discourse in cybercommunication, but intra/intergroup psychological functions based on Keitai Internet use can be the main factor in communication that decides the style of written discourse. In addition, it is also true that different societies are constructed based on their “socioeconomic systems, norms and values, and climate and geography” (Miyata, Boase, Wellman, & Ikeda, 2005, p. 143). These factors, as well as individual differences such as gender and age, influence the use of the Internet, including the Keitai Internet (Miyata et al., 2005), and to use Keitai differently would also affect discourse in that medium.

### 3.2 Language in SMS

As explained in Section 1.5, SMS requires a sequence of key touching and in general, it is difficult for people to press the same key many times, so this sometimes leads to mistyping since mobile phones sometimes do not properly distinguish between a single key press and two or more presses. In addition, it is also difficult to input SMS text without seeing the display and this is also a reason for mistyping (Schneider-Hufschmidt, 2005).

Kopomaa (2005) reports on SMS practice in Finland and finds that SMS is regarded as a simplified bulletin board, so brief and informative messages are preferred in this type of communication. Moreover, people feel that they can increase their private time through communicating by SMS even though they are using it in a public place. Furthermore, people feel they can say what they want easily and accurately. Based on these perceptions, SMS communication is a pastime which gives people pleasure.

Hård af Segerstad (2005, p. 37) summarises the characteristics of language use in SMS thus:

- Deletion of subject (especially subject pronoun)
- Deletion of preposition, article and possessive pronoun
- Deletion of copula-, auxiliary- or modal verbs (+XP)
- Deletion of Verb and Subject pronoun; Telegram style
- Shortenings, contractions and G-clippings and other clippings
- Acronyms and initialisms<sup>23</sup>
- Letter/number homophones
- ‘Misspellings’ and typos
- Non-conventional spellings
- Accent stylizations
- Omission of punctuation and word spacing
- Exclamation marks and question marks
- Emoticons (or smileys)
- Capitals or small letters only (whole messages)

<sup>23</sup> For example, Crystal (2001; 2008) mentions that SMS includes many abbreviations such as ‘C U (see you)’ or ‘BRB (be right back)’.

- Inflectional endings reduced
- Substitute long words in native language with foreign shorter ones

SMS communication can be regarded as a communication channel situated somewhere between speaking and writing since it involves immediacy and informal language as shown above. These characteristic uses of language reflect the ability to adopt the SMS interface in order to convey a message in the best way (Hård af Segerstad, 2005). In addition, genre is an important factor. In communication, a sender and a recipient have a certain expectation of what a text contains based on the genre exchanged through SMS, and their expectations should match if the communication is to succeed (Ling, Julsrud, & Yttri, 2005). Table 3.3 shows what genres are used in SMS communication based on a study which analyses 865 messages from Norwegians.

The types of genres as well as the proportion in which they appear show what kinds of information are exchanged in SMS, which reveals tendencies in SMS communication. For example, the table shows people often talk about what they expect to experience in the near future. In addition, SMS is often used for questioning and small talk, and exchanges such as these tend to be frequent. Faulkner and Culwin (2005) conduct a similar study, revealing a similar tendency to that found by Ling et al. (2005) (although the sample size was smaller), and conclude that SMS are used for a wide range of activities by a variety of people. These studies indicate that flexibility and wide application are characteristic of mobile texting.

Table 3.3 The genres of SMS (Ling et al., 2005, p. 83, slightly modified)

Genre	Proportion
Middle future coordination, i.e., things that will happen in the next hours or next day	23%
Questions	11%
Grooming, i.e., messages giving compliments or engaging in small talk	10%
Near future coordination, i.e., things that have already begun or will happen soon	8%
Short one word answers	8%
Emotional grooming	6%
Commands/requests	6%
Information	5%
Personal news	5%
Location information	3%
Sex-related jokes	2%
Distant future coordination	2%
Invitations	1%
Jokes	1%
Thank you notes	1%
Apologies	<1%
Safety issues	<1%
Creative messages	<1%

*Note.* The percentages given are from analysis of 865 messages.

As for the speech-like nature of SMS communication, Laursen (2005) investigates what

perceptions teenagers have of replying practices with SMS. For them, it is the norm that they must reply to an SMS when they receive it even though the message received itself does not ask anything that requires an answer; not to do so would be regarded as rude. In addition, since a reply is compulsory in their SMS communication, the response time is important in interpreting the communication. Senders expect that they will receive a return SMS within a certain period, and if they do not, they consider several reasons why the reply might not have come back. For example, they attribute this to a problem of transmission, to the recipients' circumstances at the time, and to the text's content itself. These characteristics show what people expect in SMS communication.

### 3.3 Language in Japanese Keitai-mail

Japanese Keitai-mail are similar to SMS since they are created using mobile phones. However, compared to SMS use in countries with alphabet languages, Japanese Keitai-mail have a different look because the Japanese language uses a writing system quite different from that of alphabet languages. In addition, Japanese Keitai-mail offer more functions than SMS. To analyse Japanese Keitai-mail, these two differences in terms of basic systems of communication should be clearly understood.

#### 3.3.1 Japanese people and their perceptions of Japanese language use

Japanese people are interested in their language use. The Bunkachō (Agency for Cultural Affairs) annually investigates language attitudes based on issues which have been prominently discussed during that particular year, and these reports show that Japanese people have been consistently interested in their language use across the years (2004, 2007). At the same time most respondents expressed the view that Japanese is used in an inappropriate manner ('midare') in each year this question was asked (2000, 2001, 2003, 2008). Generally, people try to use different language and expressions based on place and interlocutor (2005, 2006), and are very careful about this (1998, 2005). Many people respect their language (2002), as shown by their responses. Language use and its appropriateness are an issue for many people, not only language specialists but also non-specialists or ordinary people. For many people, difficulties and midare are reported in relation to the following aspects of Japanese: Kanji, Keigo, Gairaigo (loan words) and Katakana words, and the language use of young people including Wakamono-kotoba.

#### *General perceptions of difficulties in Japanese language – Kanji and Keigo*

For many members of the Japanese general public, Kanji and Keigo are regarded as difficult aspects of Japanese language. Kanji are a complex part of the Japanese writing system, but many people also think that Kanji are important and convenient (Bunkachō, 1999); even young people

regard them as an effective system of writing, especially today when PC software automatically outputs Kanji for them (Yazaki, 2003). However, some also think that as PC and Keitai Kanji conversion systems make it easy to check if they do not know or cannot recall a Kanji, and they actually often use them for this purpose, they are forgetting Kanji even though they are using more of them in documents (Bunkachō, 2006).

Keigo are frequently used in daily life because this is required in social life whether people want to use them or not (Bunkachō, 2005). However, Keigo are regarded as difficult to use correctly (Bunkachō, 2004, 2005). Because of this, some people hope that Keigo will be simplified (Bunkachō, 2005), but at the same time, they also regard honorifics as a necessary part of the language system which allows them to show both their respect to others and differences in social status (Bunkachō, 2004). Many also think that inappropriate use of Keigo has increased (Bunkachō, 2004). Bunkachō's reports show this to be an ongoing issue for Japanese people.

Keigo are regarded as difficult not only by young people but also by older people (Horasawa, 2000; Usami, 2004). Miyata (2006) attributes this to the fact that Keigo formation processes for general nouns are only discussed as a tendency rather than being fully studied, and the functions of each type of Keigo involving nouns are not clearly categorised. Miyata (2006) also suggests that appropriateness of Keigo use requires both grammatical correctness and sociolinguistic acceptability. These discussions indicate that appropriateness of Keigo use involves both grammatical and socio-cultural aspects of the Japanese language, and that people need to put effort into acquiring Keigo through a proper understanding of grammar together with practical experience.

#### *The younger generation and appropriateness of language use*

The argument by older generations that younger people use inappropriate language is a ubiquitous trend. As one aspect of this, Horasawa (2000) notes that Wakamono-kotoba (see Section 1.6) are regarded as 'inappropriate language use' by older people and analyses the reason as being that people have a natural instinct to want to use language correctly and to know it in depth. Another possible reason is that the older generation just cannot understand Wakamono-kotoba. Sasaki (2006) categorises Wakamono-kotoba into several categories such as nonsense words like 'Kogal (high school girls) language' or 'net language (language on the Internet, in particular some BBS sites)'.

Young people are also said to be unable to use Keigo appropriately. One example given is that young people use 'ssu (っす)' in sentences as a means of Keigo expression when they should use 'desu (です)'. This is common and is used not only in private communication but also in the workplace in part-time jobs, i.e., a formal occasion in society (Senuma, 2005). Moreover, even some business expressions themselves involve incorrect usage of Keigo. For example "5,000 en

kara oazukari shimasu (I now receive 5,000 yen)” is an incorrect but frequently used sentence in Japanese shops and food services. It should be “5,000 en oazukari shimasu” (Sasaki, 2006). In addition, several similar patterns of language are found in the service sector; this language register is called *Baito keigo* (keigo in part time jobs) because part-time workers are required to use these phrases since they are ‘educated’ by the companies to do so using a business service manual. Thus, young people learn such incorrect Keigo naturally without any special reason for it or consciousness of it (Horasawa & Oka, 2006).

Senuma (2005) mentions that the other reason young people cannot use Keigo appropriately is that they depend on other channels such as non-verbal communication to show their respect for senior or other people. In addition, and this may come from the difficulty of Keigo itself, it could also be because of the influence of media such as TV shows in which celebrities use casual language or inappropriate Keigo to senior people (Horasawa, 2000; Senuma, 2005). The other social factor Kitahara (2008) suggests is that the use of language showing high respect simultaneously increases the distance between interlocutors. This leads young people, as Horasawa (2000) discusses, to think that Keigo interfere with an intimate relationship with interlocutors and so they avoid using them. Therefore, sometimes they are confused as to whether they should use Keigo or not, especially with intimate seniors, as Kaneko (1994) reports. This shows that the reasons young people do not use Keigo lie not simply in lack of developed Keigo proficiency but also in their feelings about Keigo use. At the same time, since young people think Keigo function to keep distance between interlocutors, they use Keigo in order to rebuff others. Horasawa (2000) also introduces Keigo uses that are sometimes called ‘Shin Teineigo’ (new polite language). Since young people today think it a ‘kindness’ not to intrude on the feelings of others, Shin Teineigo reflect this new type of kindness.

The inappropriate use of Keigo is said to be a part of inappropriate use of Japanese (Bunkachō, 2001). However this is not only attributable to young people themselves. Kaneko (1994) argues that in the past, there were sufficient environments and occasions in which Keigo were naturally used, but the situation has changed and there are far fewer opportunities for using Keigo today, so that young people do not have sufficient opportunities to use Keigo in natural situations and therefore they cannot use it correctly. Again, it is essential for business people to learn and use Keigo and young people find it difficult to use Keigo appropriately before they begin work as a full-time worker in society (Horasawa, 2000). This is because they do not have sufficient opportunities to meet seniors with whom they need to use Keigo while they are young (Senuma, 2005). Specifically, young people have limited experience in using Keigo, at best with one or two year older seniors in school, particularly until they graduate from high school (Kaneko, 1994). This is a type of language change in Japan.

Overuse of Katakana words by young people is also perceived as a factor contributing to inappropriate use of Japanese (Sugishima, 2005). A large number of Katakana words are used in daily life. The major problems of using too many such words are that the meanings of Katakana words are difficult to understand; in addition, Katakana words decrease the true value of Japanese words, which further destroys the language system of Japanese. At the same time, since there are things which cannot be expressed except by using Katakana words, they are used by necessity (Bunkachō, 2002, 2007). This is a common perception among Japanese, especially older people, yet Sugishima's (2005) study shows that in fact older people use more Katakana words than university students. This is interesting because it shows that the image of young people as users of inappropriate Japanese is not as factual as thought, which can be a key to considering appropriate/inappropriate language use in Japan.

*Other issues relating to appropriateness of language – midare or change?*

Whether these inappropriate uses of Japanese are midare (improper language use) or are a natural process of language change is controversial. For example, *'Ra' nukikotoba* (literally 'words omitting the 'Ra' syllable') have been said to be inappropriate usage. Based on the norms of Japanese grammar, when people express possibility, the word should include the 'Ra' particle; for instance, 'eat' in Japanese is 'taberu', hence 'able to eat' should be 'tabeRAReru', but many Japanese people say 'tabereru' instead of 'tabeRAReru.' Strictly speaking, this is a grammatical error. However, many Japanese people feel that Ra nukikotoba are natural and have become a part of Japanese, so that this is regarded as language change rather than inappropriate use (Iino, Onmura, Sugita, & Moriyoshi, 2003; Bunkachō, 2009).

In any case, these non-standard uses of Japanese still follow the rules of Japanese linguistics such as phonology, morphology, and syntax (Sasaki, 2006). For example, Shin (2003) shows that 'Ra' tends to be omitted after consonants involving stops and nasal sounds rather than consonants which require other manners of articulation. *'Re' tasukotoba* (words with an additional 'Re' syllable) also show a tendency to follow the language formation rules of Japanese (Shin, 2004), so these seemingly irregular usages are not totally random and may in time become standard because of their fundamental conformity with the normal rules of Japanese language. This is, therefore, important to note when considering irregular use of language.

If new forms or usage are to become standard, they need to be used frequently in major cities for a certain period of time, as well as promoted in written language in actual use (Inoue, 2003). For example, current Standard Japanese has been promoted by TV programs based on both verbal and non-verbal language (Tanaka, 1993). This corresponds with the Bunkachō (2003) report which shows that almost all Japanese people gain information from TV, in addition to newspapers.

Survey respondents also feel that electronic written communication devices are influential as external influences on language use. In addition to attrition of Kanji ability, they think these devices lead to a loss of Japan's language culture as well as to changes in the meaning of words. They also increase new vocabulary and expressions and abbreviations (Bunkachō, 2004).

Appropriateness or problematic language use, particularly among young people, is often discussed in a controversial manner, and even the general public usually have opinions about this. However, Bunkachō's 2009 report suggests that language not used appropriately is not a result of young people's contempt for the Japanese language: more than 70% of them regard Japanese as a precious language. Therefore, appropriateness of language use is not simply a matter of how they perceive their own language. We should also keep in mind that people tend to keep rules which they have learned and regard these rules as standard or appropriate (Iino et al., 2003).

### *Summary*

This section has examined how Japanese people, in particular young people, think about the Japanese language, including issues of appropriateness disagreed about by different generations. In the following section, the influence of a widely used electronic written communication device – Keitai-mail – is discussed in detail in terms of how this influences Japanese language.

### 3.3.2 Keitai-mail and the lives of Japanese people

This section briefly summarises the perceptions of young Japanese people of the nature of Keitai-mail communication in order to analyse social and psychological aspects relating to Keitai-mail discourse.

#### *Keitai-mail in daily lives*

Keitai are a tool that people always have with them, anywhere, at any time (Hayashi, 2007), and they also provide a communication space where users, especially teenagers, can achieve freedom from social restrictions (Ito & Okabe, 2005). At the same time, some people depend on Keitai too much – they feel anxiety if they do not have their Keitai with them all the time, feel sad if they do not receive an e-mail in reply to one of theirs, feel lonely without their Keitai and anxious when they cannot turn on their Keitai (Ikemoto & Shiomi, 2006). For some people, Keitai-mail are a method of overcoming sadness when they are lonely or sad (Tomari, 2004; Ida, 2003), and therefore, the more people fear loneliness, the more they use Keitai-mail (Nakamura, 2003). This tendency appears more strongly in men (Tomari, 2004). In today's Japanese society, people are connected through Keitai (Fujimoto, 2006): people gauge their friendships based on how frequently they exchange Keitai-mail (Ono & Tokuda, 2005). However, Miyake (2002) further argues that

while a relationship via Keitai-mail seems close, it is actually weak because people need to constantly reaffirm their connection and friendship, otherwise they feel anxious. Miyake (2003a) also gives another interpretation, that Keitai-mail provide both intimacy and distance at the same time, which corroborates the communication tendency among young Japanese people that they want to have friends but not to be in a deep or serious relationship.

#### *Keitai-mail and relationship with interlocutors*

As Keitai enable people to have communication with less intimate friends, Keitai-mail have a role to play in making and maintaining friendships with new friends, former friends, or friends who do not meet frequently. In addition, Keitai-mail communication can deepen the relationship with close friends because it provides an additional communication channel between them (Uchida, 2004). Therefore, people who want to have close communication with their friends more often send Keitai-mail in order to deepen their relationship (Tsuji, 2003). Moreover, this additional communication channel also provides an opportunity to find new relationships with people (Uchida, 2004). In short, people use Keitai-mail to maintain and deepen communication; women in particular seem to use Keitai for this purpose (Kurosumi & Fukada, 2006).

However, flying in the face of users' expectations, the effect of Keitai-mail on a relationship is quite controversial. Igarashi, Takai, and Yoshida (2005) report that the extension of networks by Keitai-mail is slower than through face-to-face contact. Furutani and Sakata (2006) and Furutani, Sakata and Kohguchi (2005) find that Keitai-mail neither weaken nor strengthen the relationship with others. Other studies by Miyata and Kobayashi (2008) and Miyata, Boase and Wellman (2008) report that Keitai-mail do not expand new relationships but maintain existing networks, the opposite function to PC e-mail. These results subtly influence Keitai-mail communication, but the fact that people believe they can in fact use Keitai-mail positively to construct friendship networks seems to be a more influential factor in Keitai-mail discourses.

At the same time, people usually choose interlocutors who share more similarities with them since they can select the persons with whom they communicate via Keitai-mail. As a result, the homogeneity of communication networks is reinforced through Keitai-mail communication; the heterogeneity of the communication network is weakened and sometimes people will become less tolerant of those who are different from themselves (Kobayashi & Ikeda, 2007). In other words, people communicate through Keitai-mail with others they already know in most cases (Hayashi, 2007), regardless of their frequency of face-to-face meetings with these persons (Kitamura, 2005).

#### *Keitai-mail and other types of media*

Keitai-mail have been used as an alternative to a phone call, especially by women (Tsuji,



2003): women send and receive Keitai-mail more than men (Kurosumi & Fukada, 2005). A major reason Japanese frequently use Keitai-mail is cost: Keitai-mail are much cheaper than a phone call, so people prefer to use Keitai-mail for communication (Hayashi, 2006; Katayama, 2003). In addition, Keitai-mail are a medium which enables people to communicate without restrictions of time and space (Amasa, Hujita, Makino, & Higo, 2004; Sasaki & Ishikawa, 2006). This is a very useful advantage, especially for those who have a tight schedule in their daily lives (Amasa et al., 2004). People also use Keitai-mail in situations when they cannot use a phone call, such as when they are on a train or in a public place. Moreover, since Keitai-mail are electronic text information, there are advantages in that people can store the message or can send the same message to many people at the same time (Uchida, 2004). These advantages accelerate the use of Keitai-mail in Japanese life.

Owing to the advantages of Keitai-mail in terms of time and space, people rarely know when their interlocutors will send Keitai-mail, so that Keitai-mail communication is decontextualised communication. This decontextualised aspect of Keitai-mail decreases the psychological pressure of communication since people do not see each other's faces and facial expressions, and they do not need to reply as quickly as in a conversation. In addition, Keitai-mail are more indirect than a phone call, so people feel more at ease in communicating with interlocutors. These characteristics further contribute to an understanding of Keitai-mail as an easy and casual communication method, and therefore people use Keitai-mail for trivial communication or communication while doing other things (Uchida, 2004). Yoshitake (2005) notes, however, that the topics people exchange are not limited to trivial matters only but include more important matters as well, and the more people use Keitai-mail, the more they include important matters in their texts.

#### *Perceptions of the mode of Keitai-mail*

From the psychological point of view, Sugitani (2007) discusses the reasons people feel they can talk more easily when they use Keitai-mail. Several points are advanced. Firstly Keitai-mail enable users to avoid the pressure of the non-verbal messages found in face-to-face communication, allowing them to control messages more than in face-to-face contact because they do not have to worry about unintended messages transferred through unconscious facial expressions, and they can check the text of their message as many times as they wish before sending it.

To extend this nature to interpersonal communication, Uchida (2004) argues that Keitai-mail ease the burden on interlocutors because they are not synchronous communication. In addition, because users do not need to see the face of their interlocutor, they can say things they cannot say in person (Tomari, 2004; Uchida, 2004). This can be the result of decreasing a psychological barrier in order to convey their thoughts (Tomari, 2004), and this alleviation of the burden of communication

makes it possible for even people who are less sociable than others to maintain a social network (Kimura, 2005). Keitai-mail offer a platform for communicating with a wider population than a phone call or other communication media, and this is important in analysing exchanges via Keitai-mail.

Focusing in more detail on the psychological viewpoint, Okamoto and Takahashi (2006) investigate how people feel about three methods of communication: face-to-face, in a phone call, and via Keitai-mail. They argue that people feel the most closeness with their interlocutor when they speak in person, then through a phone call and the least via Keitai-mail. At the same time, people feel less anxiety in communication through Keitai-mail than face-to-face or a phone call. Therefore, through Keitai-mail, people can communicate freely with those who are not such close friends. In other words, Keitai-mail are a medium in which people express their feelings more, and they are more willing to consult via Keitai-mail (Kawamura, 2003); they can be honest through Keitai-mail communication and say things that would be difficult to say in person or in a phone call (Ikemoto & Shiomi, 2006). Tomari (2004) also reports on this point that since Keitai-mail enable people to communicate more easily, men use Keitai-mail for speaking of their problems and seeking advice. Interestingly, women do not have this tendency, and they prefer to talk about their problems in person. However, as Kodama, Mine, Takamoto, and Fukuda (2004) report, Keitai-mail do not have an advantage in encouraging self-disclosure within non-intimate relationships when compared to face-to-face communication; people feel it easier to disclose themselves in person. This corresponds with Sugitani's (2007) report which posits that Keitai-mail, or even other CMC, will not take over from face-to-face communication even though they enable users to talk more easily. Moreover, Kitani (2003) finds that the use of Keitai-mail stimulates people to contact their interlocutors in person.

At the same time, even though people feel they can easily convey via Keitai-mail something that is difficult to speak of, recipients do not always welcome hearing everything their interlocutors send; in other words, people have a particular disposition as to what they do and do not wish to hear via Keitai-mail and interlocutors sometimes send a message which they do not feel comfortable being told by this means (Yoshitake, 2005).

Communication in Keitai-mail is different from communication face-to-face (Okamoto & Takahashi, 2006), and if people use different communication media, their attitudes towards the interlocutors are also changed (Okamoto & Egawa, 2003). This further leads to a phenomenon Ikemoto and Shiomi (2006) observed, that some feel that they are not engaging in 'real' communication and that a relationship based on Keitai-mail communication is not a 'real' relationship. A possible reason for this is the difficulty of conveying a message through Keitai-mail as well as knowing the interlocutors' reactions on the part of the sender, and the difficulty of

understanding the real message and emotion of the sender on the part of the recipient (Uchida, 2004). Moreover, improper expressions and mistakes in Keitai-mail cannot be revised once sent (Mizuta, Doi, & Yamamoto, 2004). These characteristics potentially make communication through Keitai-mail difficult. However, people do try to convey their message by constructing a communication context using emoticons or graphics, as well as creating a communicatively comfortable atmosphere by putting cute or enjoyable expressions in Keitai-mail (Uchida, 2004).

#### *Other issues*

Oe (2007) shows that the commonly heard public opinion that young people rarely write is not true because of their heavy use of Keitai-mail. Japanese people in general are aware of the influence of electronic communication devices on their language use (Bunkachō, 2004). For this reason, Keitai-mail are an essential factor when considering the writing ability of people in Japan today.

From a user engineering perspective, as the name of the device ‘Keitai (portable)’ shows, people (virtually) always have their mobile phone on them and they also use Keitai-mail on various occasions even throughout a journey. However, if they use Keitai-mail when in motion, they lose their physical balance because it makes people focus on the screen and then restricts visual information; their head leans to one side since they input using their dominant hand while gazing at the screen, and they concentrate on the task of creating Keitai-mail as a visual display task (Ono, Suzuki, & Takahashi, 2002). This also influences the language of Keitai-mail.

#### *Summary*

As discussed above, Keitai-mail are a communication tool deeply rooted in Japanese daily life. Life with Keitai-mail is the norm for most Japanese people, in particular young people, and the heavy use of Keitai involving the technical and psychological characteristics and advantages of Keitai-mail communication influences language use. Literacy is a social practice, so that Keitai-mail reading and writing as a particular but major written method of communication influence the language use and literacy of Japanese people. This is an important aspect of any language and literacy investigation.

#### 3.3.3 Language use in Keitai-mail

Keitai-mail are a communication medium through which people can express their intention properly only through writing. People cannot depend on non-verbal cues and add extra information when needed. Moreover, the content of Keitai-mail must be clear and concise because the size of the screen is small (Mizuta, Doi, & Yamamoto, 2003). These restrictions influence language use in

Keitai-mail. This section discusses language use and its characteristics in Keitai-mail based on influences from the Keitai interface as well as psychological effects of language use through Keitai-mail. At first glance, Keitai-mail have the following characteristics: 1) speech-like content, 2) rhythmical communication and 3) graphical expressions with emoticons and graphics (Horasawa 2005).

#### *Consummatory nature of Keitai-mail*

Since people use Keitai-mail to strengthen their friendships, the content of Keitai-mail has *consummatory* characteristics, i.e., a communication style which is like mere chatting. Having a chat is the purpose of communication, in many cases, which leads to the content of Keitai-mail being like oral communication in nature (Tsuji, 2003), or just textualised oral communication (Katayama, 2003).

On this point, Furutani and Sakata (2006) note that consummatory communication is more suitable via Keitai-mail than emotional exchanges because of the unbounded nature in terms of time and space of this medium as well as limitations on the amount of information that can be sent at any one time. Suzuki (2005) further analyses this characteristic as meaning that Keitai-mail are used for matters which are not worth the bother of a phone call, so such Keitai-mail do not have a specific purpose such as information exchange. Speech-like content is a major characteristic of Keitai-mail as a 'written communication medium'. Young people actively use features of the spoken language in Keitai-mail writing (Miyake, 2002). In sum, Japanese people, especially young people, intentionally use casual or oral expressions which are less formal than letter writing and add emoticons in their Keitai-mail writing (Bunkachō, 2004). At the same time, since Keitai-mail are generally used as an alternative or even major communication method, Keitai-mail are not the result of deep and careful consideration when composing (Katayama, 2003). This is also an influential factor in the literacy skills of Japanese people.

#### *Factors in Keitai interfaces*

The interface of Keitai influences writing style, even compared with the PC which has a similar function in terms of e-mail (Sasahara, 2002). First of all, Sasaki and Ishikawa (2006) report that many Keitai-mail consist of just one paragraph, and because of the screen size and limited number of letters shown on it, the content is brief and direct because senders want to shorten their original messages to adapt to these restrictions. This is also attributable to the effort involved in composing a message – Keitai-mail require a longer input procedure than PC e-mail (Hayashi, 2007). In addition, Sasahara (2002) shows that on the Keitai, compared to the PC, the script tends to include unnatural Kanji, since Keitai's Kanji conversion system is much more inconvenient than the

PC's.<sup>24</sup>

On the subject of Kanji, Katayama (2003) also argues that because of heavy use of the Kanji conversion system, people tend to make mistakes in Kanji use. Sasahara (2002) further notes that the restriction on the number of characters in Keitai-mail induces increased use of Kanji and deletion of particles. When we analyse today's Japanese Keitai-mail services, however, we find that this restriction has almost disappeared since *short-mail* (character-number-restricted e-mail, i.e., SMS) is rarely used in communication in Japan today; however, this kind of abbreviated writing still appears in Keitai-mail because of the interface characteristics of Keitai. On this point, Sasaki and Ishikawa (2006) provide evidence that in Keitai-mail, compared to PC e-mail, nouns, adjectives, and verbs are used more than adverbs, particles and conjunctions. This means that paragraphs in Keitai-mail are briefer than in PC e-mail.

These interface characteristics also lead to high use of Hiragana, Kan-sūji (numbers in Chinese characters), and half-size Katakana because of their convenience of input. In contrast, Arabic numerals and roman letters are less used since users need to change input mode when they input these letters, and this mode change is regarded as a nuisance when writing e-mail (Sasahara, 2002). For the same reason, the frequency of appearance of Katakana itself is also low (Sasaki & Ishikawa, 2006). Similarly, Yamanishi (2007) reports that people tend not to use English (or other alphabet-using languages) in Keitai-mail. She analyses this tendency thus: in addition to the inconvenience involved in alphabet input because it requires an input mode change, Keitai-mail are not regarded as a good display format for the alphabet since only a limited number of letters can be displayed in a single line and it commonly happens that a single word is cut unnaturally in the middle because of these specifications and is displayed on two lines. This causes senders discomfort, so they do not take the risk. Furthermore, input via Keitai interface easily leads to mistakes because of a cell phone's slippery surface; in particular, users tend to make mistakes when they are wearing mittens or have long fingernails (Sasahara, 2002). Young people consider ease of input to be very important (Kinoshita, Inoue, & Sakai, 2008).

In a quantitative study, Kimura (2002) reports on how each type of Japanese script and symbol was used in Keitai-mail using a data corpus of 6011 moji. Table 3.4 illustrates his results. Based on this result, Kimura argues that a high proportion of Hiragana is a salient characteristic of Keitai-mail (other media include less than 40% Hiragana, according to a survey by the National Institute for Japanese Language and Linguistics carried out between 1999 and 2001).

From the point of view of readers of Keitai-mail, their settings for the size of the text in Keitai-mail affect whether they understand the letters and content correctly.

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<sup>24</sup> However, current Keitai are equipped with almost the same conversion system as the PC.

Table 3.4 Use of each type of symbol in Keitai-mail (Kimura, 2002, p.36, slightly modified)

Type of script	Late teens	Early 20s
Hiragana	59%	56%
Katakana	7%	7%
Kanji	21%	22%
Alphabet	2%	1%
Arabic numerals	2%	1%
Symbols	10%	12%

*Note.* The original study also examined each symbol in newspapers, magazines, and TV. Columns do not sum to 100% due to rounding.

The smaller the letter size in Keitai-mail, the more people tend to misread them.<sup>25</sup> If the letter size is too big, on the other hand, people cannot read Keitai-mail quickly because the Keitai screen is not very wide and only a very limited number of large letters can fit on it (Matsunuma, Hasegawa, Omori, & Miyao, 2006). At the same time, the small screen size of Keitai means that senders do not review and revise the content of e-mail (Sasaki & Ishikawa, 2006). These factors affect the language of Keitai-mail.

#### *Characteristics of Keitai-mail composition*

Generally Keitai-mail consist of short sentences. The use of emoticons supports this tendency in writing Keitai-mail by providing a rich source for expression of emotion or other information (Hayashi, 2007). In addition, instead of using punctuation such as ‘。’ (a full stop), Keitai-mail tend to conclude with emoticons (Nishimura, 2003). More than 90% of sentences are concluded by emoticons in a study in which Tachikawa (2005) argues that emoticons used at the end of sentences reflect the intention to convey feelings as accurately as possible.

Miyake (2004) demonstrates how a subset of young Japanese women known as Gals play with language in Keitai-mail. Table 3.5 is an example of Gal language; it shows that they replace Hiragana with other symbols which bear a resemblance in shape to the original Hiragana.

Table 3.5 An example of Gal language based on difficulty of recognition (Miyake, 2004, p.5, slightly modified)

Difficulty of recognition	Expression
Standard	わたしはばかかなとおもう
Easy	わたUはは”かかなとおもう
Difficult	わナニUはは”カ’カ’ナよ’Cおもう
Very difficult	わナニUはは”カ’カ’ナよ’CおmOう

*Note.* わたしはばかかなとおもう means “I think I am/one is stupid.”

For example, た(/ta/) is written with two Katakana ナ and ニ (ナニ). Miyake also mentions

<sup>25</sup> But as Omori, Hasegawa, Matsunuma, and Miyao (2008) report, an effort to increase readability has been undertaken in order to market phones to elderly persons, with research studies conducted investigating the best size and fonts for optimal readability.

that to apply too much creativity increases the difficulty of comprehending texts, but these LP also increase communication opportunities as if users were enjoying a quiz about their meaning within a group of friends.

For more on LP, Miyake (2007) summarises non-standard script choices found in Keitai-mail:

1. Kanji instead of Katakana: 怒気怒気←ドキドキ (ドキドキ, dokidoki' means 'The sound of a heartbeat', and should be written in Katakana.)
2. Hiragana instead of Katakana: はっぴい←ハッピー (ハッピー, happi-' happy' should be written in Katakana.)
3. Katakana instead of Kanji: リョーカイ←了解 (了解, 'ryo-kai', 'all right' in Katakana is not conventional writing.)
4. Romaji instead of Hiragana: いい yo←いいよ (よ, 'yo', sentence-ending particle, should be written in Hiragana.)
5. English instead of Katakana: Thank you←サンキュ (normally written in Katakana.)
6. English acronym instead of Japanese: NG←ダメ ('NG' is an acronym for 'no good'.)

#### Non-standard Letter Choices

1. Small letters 1: ありがとう←ありがとう Reducing the size of normal letters.
2. Small letters 2: おやすみい←おやすみ Adding a small letter to lengthen the preceding vowel.
3. Long vowel: ...するよ〜 Lengthening the vowel sound of the preceding letter.
4. Wrong spelling: まぢ←まじ, そお←そう Consciously taking up a wrong spelling when the pronunciation is unaffected by the mistaken spelling.
5. Additional aspiration mark (Soku-on): よしっ←よし, Expressing a desire to show determination, desperation, etc.
6. Specialised signs: いちゃ②←いちゃいちゃ Using mathematical, scientific and other specialised signs. In this case, ②playfully applies the concept of mathematical squaring to avoid having to repeat a whole word.
7. Omitting punctuation: ありがとう♡ ←ありがとう。 Replacing punctuation with graphic characters.

(pp. 64-65, slightly modified)

The characteristics shown above are similar to the characteristics of SMS listed by Hård af Segerstad (2005) (see Section 3.2); some characteristics of the language of SMS thus appear in Keitai-mail in addition to other characteristics specific to Keitai-mail.

More pragmatically, there are two characteristics of Keitai-mail: instrumental communication and consummatory communication. The former includes information which needs to be conveyed; the latter does not (Horasawa, 2005). Horasawa (2005) further shows the types of consummatory communication through Keitai-mail used by young people: a report on their day, a report on their current situation, meaningless questions and answers, and playful communication. Miyake (2002) also mentions that the content of Keitai-mail often has consummatory aspects, including a report on events, an invitation to play, personal consultation and communications about meeting. Horasawa (2005) analyses these characteristics to mean that young people enjoy conversations through Keitai-mail with close friends and that therefore Keitai-mail communication lies within the intimate

communication space. This is because Keitai-mail exchange is mostly used between close friends and they can use casual and spoken language without being required to use formal language or Keigo (Hayashi, 2007). In addition, Miyake (2002) argues that Keitai-mail communication using spoken language gives young people a sense of intimacy, and they can express their feeling using speech-like language.

### *Emoticons*

Since Keitai-mail include richer sources of emoticons or special symbols as defaults, people make frequent use of these emoticons and symbols, especially by comparison with their use in other media such as letters, postcards, and PC e-mail (Yamanishi, 2007). In general, people use the emoticons which come already installed in Keitai, but some do create new emoticons from combinations of letters the platform provides. In the latter case, people usually also download new emoticons from Internet sites, or recycle new emoticons received from friends (Ono & Tokuda, 2005). Because these emoticons and symbols are so easy to use, they often appear in Keitai-mail in order to prevent the text from appearing bland (Yamanishi, 2007).

Kitani (2003) mentions that emoticons are used to add emotional expressions, to create an enjoyable and relaxing communication atmosphere, and to show intimacy, and Yamaguchi and Joh (2000) report that texts with emoticons actually give a different impression from those without them. For instance, young people generally receive a positive impression (cute, interesting, fun), whereas some people feel emoticons are not serious and are even rude (Miyake, 2002). Yasuhara et al. (2009) argue that emoticons entail an image of lack of seriousness and sincerity, so it is not appropriate to use them in business.

Most people have accepted emoticons and do not have a negative image of them (Yamaguchi & Joh, 2000), and young people have a more positive image of Keitai-mail with emoticons than without emoticons. They also feel that they can understand the real message of the sender if emoticons are used, since emoticons express intimacy and emotion. Creation of new emoticons is a device to extend this function (Ono & Tokuda, 2005).

From this point of view, emoticons actually function to convey the emotion of the sender.<sup>26</sup> This is because they substitute for facial expression in Keitai-mail communication (Kato, Kato, Kobayashi, & Yanagisawa, 2007): people can understand their interlocutors' intentions better when emoticons are used (Takahashi, Fukada, & Akimitsu, 2005). Therefore they play a role in making communication smoother (Uchida, 2004). As discussed previously, people depend heavily on

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<sup>26</sup> An important note here is that emoticons are not used in the same way by everyone. Sometimes recipients interpret them as having a different meaning from that which the original senders intended (Takahashi et al., 2005; Uchida, 2004).



non-verbal cues, particularly facial expressions, in communication in order to understand their interlocutors' intentions and it is very difficult to communicate without such non-verbal cues. Emoticons substitute for these non-verbal cues and therefore they actually support proper understanding of others and smooth communication through Keitai-mail, a written-medium communication. Kawakami (2008) shows how 31 emoticons induce people's reactions,<sup>27</sup> and Ono and Tokuda (2005) discuss 15 emoticons with possible interpretations.<sup>28</sup>

Moreover, since people can visually understand the message when they see emoticons, these symbols can substitute for a word or phrase written using several Japanese syllables (Hayashi, 2007). At the same time, as Ono and Tokuda (2005) point out, although emoticons carry a certain meaning in themselves, people generally interpret their meaning based on the context in which they are used and in the overall e-mail exchange. Therefore, emoticons are also said to be context-dependent symbols which supportively add an emotion or meaning to content. Emoticon use is an important characteristic of Keitai-mail, so that Keitai-mail without emoticons is sometimes regarded as sloppy (Ono & Tokuda, 2005) and even induces anger and sadness in interlocutors (Kato et al., 2006b).

One fundamental question relating to emoticons is whether they are pictures or letters. Kimura (2002) investigates this question: her study concludes that people regard emoticons as pictures rather than letters, and that emoticons are used not to replace words written in the five Japanese scripts but to function as supplements or additions. This also can be discussed from the viewpoint suggested by Azuma and Ebner (2008), namely that such emoticons can function as a universal language among speakers of different languages with a certain degree of success. Their report indicates that interpretation of emoticons is not restricted by language and that emoticons therefore can be viewed as not belonging to the scripts of any particular language.

### *Gender*

Gender is a key factor in different use of language. Fundamentally, as Okuyama (2009) reports, the main purpose of men and women when sending Keitai-mail is different: men use Keitai-mail to set up meetings, women seek to share their emotions. Reflecting these underlying motives, women generally compose longer texts than men (Hayashi, 2007; Tachikawa, 2005; Yamanishi, 2007). Moreover, both men and women tend to send longer messages if the recipients are women (Yamanishi, 2007). Women often also use more emoticons or ornamental expressions in Keitai-mail sent to other women (Hamada, 2007; Kurosumi & Fukuda, 2005; Tachikawa, 2005; Yamanishi, 2007). On this tendency, Ikeuchi, Nozaki, Ejima and Umeda (2010) further report that

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<sup>27</sup> See Kawakami (2008), pp. 70-81.

<sup>28</sup> As above, Ono and Tokuda (2005), p. 27.

the number of emoticons which people include in Keitai-mail differs based on the number of emoticons in the Keitai-mail they receive, but women show this tendency more than men. Moreover, women use more emotional expressions in e-mail than men; this can be explained as resulting from the fact that while men focus more on information in content, women esteem passion or emotion in text communication (Miyamoto & Kotera, 2004).

Miyamoto and Kotera (2004) discuss the following characteristics of Keitai-mail texts between women: 1) brief responses at the beginning of a sentence (e.g., “sokka” (I see)), 2) repetition of what the interlocutor wrote in the previous Keitai-mail, 3) emphasis in the middle of the sentence (e.g., “waa” (goody)), 4) female-specific expressions at the end of a sentence, 5) humble expressions at the beginning of a sentence (e.g., “anonee” (well, I tell you what)), 6) humble and polite expressions in a sentence, and 7) humble expressions at the end of a sentence such as ‘kamo’ or ‘kana’ (maybe), “...”, and ‘no’, ‘ne’, ‘kashirane’, or ‘none’ (these four particles have a softer tone as sentence-closing particles). They explain that firstly, since short responses function to show our interest in interlocutors without interfering with their speech as well as supporting interlocutors’ further comments, people use these expressions in their reply Keitai-mail. This further suggests that communication through Keitai-mail has an oral-communication nature; it can be said to be a conversation which takes place over a time. That this is the nature of Keitai-mail is further supported by the second characteristic they show, i.e., that people repeat the interlocutor’s previous comments in their reply e-mail.

As for 3) and 4), these expressions are used to create an interesting text, which is further able to make interlocutors feel relaxed and comfortable and create a closer relationship with them. The use of these expressions is also a reflection of the fact that users think the emoticons installed in their Keitai are not sufficient to express their feelings fully and therefore they need to devise their own expressions to do so. For 5) and 6), the intention of using such expressions is to create a more relaxed communication atmosphere before stating a direct expression which may make the interlocutor feel uncomfortable. This reflects women’s feeling that they do not want to be regarded as a person who uses bad expressions or who is impolite.

Finally, the reason women use humble expressions at the end of a sentence, which have a softer sound as sentence-closing words, is that they try not to violate interlocutors’ personal feelings or opinions through making a direct assertion. In other words, they allow the interlocutor freedom of choice through such indirect expressions. This effort to avoid giving a negative impression is also mentioned by Miyake (2003b). It is a reflection of the negative politeness strategy implicit in Japanese communication. This argument is further supported by Ikeuchi et al. (2010), who suggest that people who pay more attention to others carefully consider the appropriateness of the amount of Emoji in their Keitai-mail in order not to give rise to misunderstandings in communication where

the interlocutor is not physically present.

Quantitative data on the difference between Keitai-mail composed by men and women comes from Tochiyama (2010), who counts the number of times each script appeared in sample Keitai-mail gained from a role-playing survey. The results show that Keitai-mail written by women consisted of approximately 68 moji, while those written by men had approximately 61. In addition, the proportions of Hiragana, Kanji, and Katakana in the total number of moji used by women and men are 62.6%-61.2%; 22.7%-24.5%; 3.2%-4.2% respectively. Therefore, men use the basic scripts more than women do. On the other hand, Tochiyama's study shows that women use all types of emoticons more than men do, and she also argues that Decome Emoji in particular are seen as being used by women: her findings show that women use them (4.3%) much more than men (2.0%) do.

### *Psychological factors reflected in language use in Keitai-mail*

There is a relationship between content of e-mail and interlocutor – people use certain expressions in sending messages to certain people and if this norm is violated, they feel uncomfortable. Riviere and Licoppe (2005) discuss this point and explain three types of social relationship and how Japanese people distinguish language use in e-mail based on them. The first relationship encompasses family members and close friends whom one meets every day in school or a workplace and has opportunities to go out with; the second relationship involves people whom one tends not to meet or is not as intimate with as the members of the first group, such as former classmates or colleagues; the third relationship is with acquaintances with whom one does not have regular communication and closeness. Based on these three relationships, people adjust their behaviour from carefree to serious, or casual to formal, including their use of language. Keitai-mail themselves show this tendency: if senders feel greater distance, they use more formal language, which is a reflection of etiquette in real life social practice in Japan.

For a more concrete example, Kato, Kato, and Akahori's (2006a) report shows that people perceive an interlocutor to be honest when they receive an e-mail which consists of formal language; on the other hand, they feel closeness when they receive e-mail with speech-like language and emoticons. These two variables are a trade-off. Therefore, people feel good when they receive e-mails using speech-like language or emoticons from their close friends.

Moreover, Sato, Kato and Kato (2008) investigate how the content of Keitai-mail as well as the sender induces feelings in the recipient, and further how recipients choose to either express sympathy or restrict their emotion when replying to these e-mails. The emotions investigated are enjoyment, sadness, anger, and guilt; groups of senders are close friends, non-close friends, close teachers, and non-close teachers. The results show that if the content involves enjoyment, recipients feel enjoyment as well. They also tend to express sympathy regardless of who the sender is, but the

closer the sender, the more strongly the recipient feels this. As for sadness, when senders are close friends, recipients try to express their sympathy to them. This is because intimacy with close friends is influential in inducing the emotion of strong sadness.

Anger expressed in Keitai-mail generally induces sadness and anger, and entails sympathy from all groups of senders, but if senders are people close to the recipient, the feeling occurs more strongly. At the same time, recipients also restrict their feeling if senders are close friends; this is an effect of intimacy. When recipients feel guilty after reading Keitai-mail, they try to alleviate the sender's feeling of anger through expressing their guilt across any of the four sender groups. At the same time, if senders are close friends, recipients also try to alleviate these senders' anger by conveying their own sadness, also an effect of intimacy. As this study shows, complex psychological activity occurs when reading Keitai-mail based both on the content and on who sends the Keitai-mail; this is a key factor in analysing Keitai-mail to discover why people use particular language based on a certain psychological state.

#### *Semi-synchronous nature of Keitai-mail*

Even though Keitai-mail have a conversational nature, the communication is still in one direction, so this provides a feeling of comfort because people can communicate with others at their own pace and sometimes it leads to too much use of Keitai-mail or addiction to it (Amasa et al, 2004). Keitai-mail are a sender-centred communication medium. However, recipients also feel pressure to reply to e-mail immediately, or senders feel anxiety if they do not receive a reply quickly (Amasa et al 2004) because it is rude (Fujimoto, 2006). Hayashi (2007) notes that people hold the premise in Keitai-mail communication that it is a continuous exchange of messages even though it is not really synchronous communication. In other words, Keitai-mail carry the expectation of a reply (Suzuki, 2005).

Reflecting on this nature of e-mail communication, some senders feel angry when they do not receive a reply e-mail within a relatively short time, in particular compared with PC e-mail, and this shows that people expect more synchronised communication through Keitai-mail (Kato et al., 2006b). On this point, Fujimoto (2006) discusses Keitai-mail as the textualised voice of mobile phone communication, implying that Keitai-mail messages should receive a swift reply because the interlocutors have their 'Keitai (portable)' device for communication on their persons. That the phenomenon of a late reply being perceived as rude is already deep rooted among young people can be seen in the episode reported in Kitani (2003) when his student prioritised sending a reply to a message received even when he/she was talking with the professor, giving the reason that it required a quick response. Kato et al.'s (2006b) study also shows that when people receive e-mail consisting of a short message, they also feel angry and sad.

These points reveal an interesting aspect of the nature of Keitai-mail communication: even though Keitai-mail are an asynchronous communication, people feel or expect them to be synchronous communication, but if they use them as a synchronous communication medium and receive a short message in reply to their previous message, they feel angry or sad; this means that an e-mail is an individual message, a message of asynchronous communication. Fujimoto (2006) finds that in Keitai-mail communication, when senders do not receive a quick reply, people do not expect that the recipient has not read their e-mail, because they assume the recipient has their 'Keitai (portable)' with them at all times; rather, they think the recipient cannot or does not reply to the mail for some other reason. As shown above, Keitai-mail communication contains both synchronous and asynchronous aspects of communication, so Keitai-mail communication can be said to be semi-synchronous communication, similar to Internet chat (Uchida, 2004).

As discussed above, Keitai-mail are an easy and convenient method of communication and this further provides users with opportunities to write and read Japanese. At the same time, however, as Katayama (2003) argues, Keitai-mail communication is more a matter of textualised oral communication than the pure written communication found in letters, with the result that the content of e-mail is rather plain and is not the result of deep and logical thinking in composition. Baron (2008) further describes this phenomenon: language on the Internet is written in format but has the nature of spoken language in informal settings, which results from lack of effort in composition. The Keitai interface also influences the language of Keitai-mail. Some studies show that the small screen size of Keitai affects the creation of e-mail. The characteristics of Keitai-mail communication are summarised in relation to the other major communication media in Table 3.5 by Kurosumi and Katayama (2005).

Table 3.6 The characteristics of communication media (Kurosumi & Fukuda, 2005)

		Mobile phone	Keitai-mail	PC e-mail	Home phone
Differences	Synchronicity	High	Low	Low	High
	Medium	Voice	Letters (limited)	Letters (unlimited)	Voice
	Mobility	High	High	Low	Low
Commonality	Anonymity	Anonymity in visual terms			
	Special restriction	None			
	Individuality	1 on 1			

When discussing Keitai-mail in terms of their characteristics as a communication medium, they are sometimes compared with letters or PC e-mail. While these may seem similar, however, Japanese people feel that they are a different communication medium. Oe (2007) points out that, at the present time, a letter is regarded as formal writing intended to convey the sender's thoughts and messages, PC e-mail is an informal written communication, and Keitai-mail are a convenient

written communication medium; therefore, Japanese people use these media differently depending on their purpose of communication. This is why the language of Keitai-mail needs to be analysed as a new genre of communication even though it seems to share similarities with pre-existing media.

#### *Influences of Keitai-mail on other writings*

Mino (2005) reports that the writing of university students actually shows influences from Keitai-mail writing, such as inappropriate making of paragraphs, problems in punctuating,<sup>29</sup> lack of awareness of differences between oral and written language, inappropriate use of auxiliaries, and inability to quote. She goes on to argue that using Keitai-mail therefore negatively influences the writing ability of Japanese students and suggests that tutors should be aware of such mistakes in students' composition in an educational setting; they are different from students' previously identified weak points such as appropriate use of polite and casual expressions. This report echoes Katayama's (2002) concern that students' ability in Japanese is poor.

#### 3.4 Conclusion

As the discussion above shows, a dynamic view of Keitai-medium communication, in contrast to studies of different ways of Keitai communication, has yet to be developed. The study of Keitai communication requires theoretical and methodological frameworks that are multidisciplinary in approach such as CMC studies and personal communication studies (Ito, 2005). In addition, Ito and Okabe (2005b) point out that Keitai communication research should be approached through its technological, social, practical, and technosocial aspects.<sup>30</sup> This study therefore analyses Keitai-medium text-based communication from multiple perspectives based on different modes of communication styles. It extends our understanding of how Japanese people, in particular, young people who are the main users of Keitai, create written texts using this mode of communication. It provides significant insight into the literacy practices of Japanese young people today. Mino (2005) touches on the negative influence of Keitai-mail use on student literacy and makes suggestions as to how educational institutions should handle this issue. The present study further investigates concrete aspects of actual literacy practice and to what extent they are irregular in terms of standard Japanese.

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<sup>29</sup> Punctuations in Japanese are ‘、’, which is equivalent to the comma in English, and ‘。’.

<sup>30</sup> The term *technosocial* is defined as “a way of incorporating the insights of theories of practice and social interaction into a framework that takes into account technology-mediated social orders” (Ito & Okabe, 2005b, p. 259).

## Chapter 4 Research methodology

This chapter explains the methodology of the present study, including participants (detailed biodata may be found in Chapter 5), procedures including ethical approval, instruments used in this study for data collection and data analysis, and data analysis methods in qualitative and quantitative approaches. Briefly, this study analysed Keitai-mail gained directly from the participants' mobile phones by USB connection to the researcher's PC software, which enables the researcher to gain 1) a large set of data and 2) texts composed with natural use of language, with a reasonable degree of backup quality of the original properties of Keitai-mail components. Details of each process are explained in this chapter.

### *Participants*

The participants in this study are Japanese people aged between 18 and 30. This age group was chosen because, firstly, the annual surveys of language attitudes carried out by the Bunkachō (Agency for Cultural Affairs) specify the twenties as one of their age groups, the members of which are assumed to share the same experience of Japanese language (see Bunkachō's reports). As previous studies show, groups of university or tertiary students (aged 18 to 24) exhibit similar tendencies in terms of language use through Keitai (e.g., Miyamoto & Egawa, 2004; Okamoto & Egawa, 2003; Yamanishi, 2007). In addition, those now aged around 30 were the first generation to use Keitai while they were students. Therefore, all members of this group can be regarded as people who are familiar with the technical aspects of using Keitai. For these reasons, this study chose the 18 to 30 age group for its participants in order to permit generalisability in terms of age. There are 60 participants in the study and the proportion of male to female is 1:1. This means each participant group has 30 members, all of the same gender since gender is a key factor in differentiating language use as shown in previous studies.

Participants were recruited in major Japanese cities through the researcher's personal connections and their networks, the major criterion being that they use Keitai in the general sense, i.e., they use Keitai-mail and phone calls for general communication on business, school or private matters. Apart from that criterion, the participants were not selected on the basis of social status, such as their occupations. The major cities are places where people from different cities and towns in the *chihō* (a state-equivalent area unit) such as Kanto (Tokyo and peripheral prefectures) and Kansai (Osaka, Kyoto, and peripheral prefectures) gather together for tertiary education and jobs. The fact that people from various areas live there and speak different varieties of Japanese based on where their hometowns are ensures that the participant group does not consist entirely of people sharing the language practices of one particular area, and this minimises the possibly skewing

effects of, e.g., a local dialect, or language trends in one particular urban area. Detailed description of the participants will be given in Chapter 5.

### *Procedure*

The data collection was conducted from May 2009 to January 2010. Once the participants agreed to participate in the research, the researcher visited a place of the participants' choice (such as their places or a cafe near their places). In the session, the participants were asked to provide any Keitai-mail text remaining in their Keitai that they could disclose to the researcher. Other than their preference, other directions (such as that they should choose the mail only for their personal communication etc.) were not given. Since Keitai-mail data were collected automatically through a backup software (details in the next section) via USB connection, the participants selected the data provided either on their Keitai or the researcher's PC based on their own preference/convenience. In either case, they were also asked to confirm that they provided Keitai-mail that they themselves actually chose, and that no other mail was saved in the researcher's PC by mistake. On the same occasion, they were also asked to answer a questionnaire about their perceptions of communication via Keitai (which includes perceptions of Keitai-mail communication, details also in the next section).

The researcher stayed with them in case of possible technical or other trouble during the study, but the participants worked under the instruction that the researcher would not see any information they provided during the sessions other than in cases where the participants themselves requested it; this was because of privacy matters and issues in bias arising through researcher-participants interactions. The sessions were held under a casual atmosphere (i.e., the participants were not asked for very serious concentration on their works [e.g., to keep silent all the session or to refrain from a phone call even when received] as some other study may require) in order to gain their natural responses in a relaxed mood.

After the sessions, all data was treated as anonymous data, that is, participants are not able to be identified, and was saved in the researcher's PC with password protection. Ethical clearance was received from the University of Queensland's Behavioural & Social Sciences Ethical Review Committee (Ethical clearance number 17-08).

### *Instrument*

For data collection from Keitai, this study used the mobile phone backup software *Keitai Master MX* (ver.4.5) (Jungle Inc, 2009). This software enables users to save several types of data in Keitai including Keitai-mail, and in particular in this study to collect a large number of sample Keitai-mail. The software can collect Keitai-mail text data from the major Japanese mobile phone



carriers Docomo, au and SoftBank, with their pre-installed pictures of Emoji as well as downloaded pictures of Decome. As indicated in the limitations of the study (Section 1.4), because of the backup mechanism of au mobiles (specification matters), Decome appearing in au mobiles could not be collected.

The study also used a questionnaire as a part of its data collection, created based on Brown (2001), Dörnyei (2003), and Tanaka (2004) in addition to the literature discussed in Sections 1.5 and 3.3. Its first section examined how participants became familiar with Keitai and how they evaluate them based on the usability of Keitai functions, including the text input system. The second section asked about how participants access the Internet via Keitai, and the third investigated how participants use Keitai as a text communication medium. The fourth section aimed to discover how participants create texts on Keitai: for example, how they use abbreviations, Kanji, emoticons, or special expressions in Keitai-mail. The fifth section consisted of questions investigating participants' concerns about the Japanese language: whether they feel that they, or even the Japanese people as a whole, use appropriate Japanese. The sixth section sought to discover the influence of media on language use through questions asking participants to list media which they frequently encounter including TV shows, magazines, newspapers, and PC Internet sites. The last part of the questionnaire collected personal information from participants, including age, gender, occupation, place of birth and current place of residence. For details, see Appendices A and B.

Each section consisted of an exchange of questions and answers, scale evaluation questions, multiple-choice questions (some questions in 'all that apply' style), and open-ended questions. Most questions firstly asked closed questions in order to reveal what participants think of matters related to Keitai and language use. Closed questions result in answers which reflect respondents' natural perceptions. Next, participants answered open-ended questions asking why they answered the closed questions in the way they did. This was a self-investigation process intended to clarify their actions and perceptions more concretely, which further elucidated conscious and unconscious use of language or expressions in Keitai-mail through concurrent analysis of the discourse from their Keitai. In addition to these questions, other types of open-ended questions explored the original source of their language use.

For data coding for quantitative analysis, the software *Charcode* (Yoshioka, 2006) was used.<sup>31</sup> This software enables checking of the Unicode of each letter. A Unicode is allocated for each Emoji in order to account for it in Keitai-mail.<sup>32</sup> In word processors on PC, Emoji display as '・' for

<sup>31</sup> Yoshioka was awarded the Microsoft MVP(Most Valuable Professional) for Visual Developer - Scripting (Oct 2004 - Oct 2007).

<sup>32</sup> For example, Docomo's Emoji 🍷 is allocated to the address of 'E63E'.

technical reasons.<sup>33</sup> Therefore, to analyse Emoji, the Unicode number has to be checked against each dot symbol and this software provides a method of doing so. (After the Unicode number for each dot symbol was known, a reference site<sup>34</sup> was referred to in order to check the Emoji for each Unicode).

For quantitative data analysis, this study utilised *Count Anything* (Ginstrom IT Solutions, 2009). Count Anything can count each type of script separately: Hiragana, Katakana, Kanji, Romaji, Arabic numerals, and other symbols. This software also counts halfwidth and fullwidth form separately. *KH-Coder* (Higuchi, 2011) was also used to provide a morphological analysis function. For this research, KH-coder was mainly used to count Kanji. Since KH-coder is limited in handling non-standard use of language when used alone, detailed morphological analysis was not conducted using this software in this study.

For statistical data analysis, this study applied a statistical package *R* (The R Project for Statistical Computing, 2011).<sup>35</sup> <sup>36</sup> *R* was used to conduct Kendall rank correlation coefficient (the extent of relation between two variables), Mann-Whitney U test (or Wilcoxon rank-sum test, comparing two groups), Kruskal-Wallis test and Steel-Dwass test<sup>37</sup> (comparing more than three groups).<sup>38</sup>

### *Data analysis*

The data collected through Keitai Master MX was analysed as follows. The Keitai-mail were analysed using both quantitative and qualitative methods. In preparation for data analysis, the study coded the data obtained for purposes of anonymity and quantitative analysis.<sup>39</sup> Proper names (such

<sup>33</sup> Technical matters relating to the coding method are not discussed fully in the thesis.

<sup>34</sup> *Emoji wo tsukai konashite miru tame no peeji.*: <http://trialgoods.com/emoji/>

<sup>35</sup> *R* is “a language and environment for statistical computing and graphics ... developed ... by John Chambers and colleagues ... [,] provid[ing] a wide variety of statistical (linear and nonlinear modelling, classical statistical tests, time-series analysis, classification, clustering, ...) and graphical techniques” (The R Project for Statistical Computing, 2011). This package is not commonly utilized in the social sciences compared with SPSS, but is evaluated as “*R* is fast becoming the *lingua franca* of quantitative research” (Vinod, 2010, p. vi), receiving growing attention in the social sciences because of its high credibility.

<sup>36</sup> The author refers to Yamada, Sugisawa, and Murai (2008) for command reference.

<sup>37</sup> *R* program extension is obtained from Aoki (2004).

<sup>38</sup> Briefly they are the non-parametric versions of Pearson’s correlation coefficient, t-test, ANOVA, and Tukey’s HSD of parametric tests respectively. Refer to textbooks on statistics for detailed concept of each statistical method.

<sup>39</sup> The coding method referred to CHILDES (MacWhinney & Snow, 2008a, 2008b) and its Japanese extension JCHAT (Sirai, Miyata, & Naka, 1998). CHILDES was originally developed to analyse the development of child language (baby language) in 1984. Since the language of children at this age is quite incomplete in terms of adult language, to construct the coding rule was a significant challenge in development. Overcoming this problem, CHILDES has been widely used in this area, and because of the usefulness of the program, it is applied in various

as names of people as well as places or organisations which could identify the senders/receivers) were replaced by anonymous codes. Proper names that are widely known and very common (such as Tokyo or Osaka) were retained.

Each participant and their interlocutor were anonymously coded. For the purpose of analysing characteristics of interaction, each interlocutor was given a different anonymous code which included gender identification. In the process of deciding an interlocutor's gender (where not directly specified), several forms of evidence appearing in the Keitai-mail were used such as proper names, first-person pronouns, appellations, topics related to each gender (such as health), and so on. The decision was made on the basis of the evidence and not on that of native-speaker intuition alone.

Following this anonymous coding, each line was categorised into genres based on Ling et al. (2005, p. 83). The decision was also made by examination of the words and expressions in the Keitai-mail; they, too, were predicted by evidence going beyond native-speaker intuition. Details are shown in Chapter 7. In this coding process, Emoji were converted and Kaomoji and LP were marked.

The data analysis incorporated both quantitative analysis including statistical tests and qualitative analysis based on the methodology of discourse analysis. The overall picture was analysed by the quantitative aspects of the data since this is a cumulative outcome of exchanges. In addition, the meanings of the texts and the underlying psychological/technical factors were analysed using both the discourse itself and the answers on the questionnaire in order to conduct an in-depth analysis of the characteristics indicated by the quantitative analysis as well as consider issues not elucidated by the quantitative analysis alone.

Firstly, the number of words in whole texts and the number of normal Japanese symbols (including Hiragana, Katakana, and Kanji) as well as text characters (emoticons) were counted, and then the proportion of each type of symbol was calculated in order to elucidate overall tendencies and characteristics of language use of each participant group in terms of orthography. Kanji were discussed in detail and LP analysed in depth in order to understand their mechanisms. At this stage, the text itself was also analysed using the linguistic aspect of DA as set out in Fairclough's criteria (e.g., the language in the texts was compared with standard grammar and phonetic patterns). In addition, influences from the Keitai interface or functions were also investigated based on the combination of the language appearing in texts and the answers in the questionnaire. This contributed in particular to answering research questions 1 (What are the characteristics of

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fields such as sociolinguistics, first and second language acquisition, language of aphasia and some language disorders, and language education. In addition, since CHILDES is English-based application software, a functional extension is needed in order to analyse texts written in Japanese, and this extended system is called JCHAT.

Keitai-mail, with particular attention to differences from standard Japanese?) and 3 (How does the technological interface of Keitai affect script use and other aspects of Keitai-mail?).

To answer research question 2 (How do psychological functions (e.g., intra/intergroup psychology such as communication with friends or acquaintances) influence writing in Keitai-mail communication?), emoticons were counted based on the carriers. Analysing a large dataset of actual emoticon use reveals trends in how they are used. Counting genres applied to text messages also suggests underlying motives in Keitai-mail texting since it illuminates the type of exchange people actually engage in via Keitai-mail and this is a reflection of what kinds of messages and intentions they want to convey.

In order to address research question 4 (How do different gender and age groups create Keitai-mail?), the data analysed above was further compared in terms of age group (older and younger) and of gender. Psychological and social aspects are a reflection of Keitai-mail communication not as seamless communication but as an interaction between people. Certain criteria originating in CA (turntaking, adjacency pairs, mutual intelligibility) were used to analyse an architecture of interactions, in particular to interpret messages not directly expressed by language itself but revealed in a sequence of interactions.

Statistical analysis was also used for exploratory purposes where relevant. The aim was to evaluate whether the differences found between groups were meaningful: for example, whether the frequency of each symbol differed significantly among groups, since previous studies have shown different social groups to be a significant factor in communication style. The choice of non-parametric statistics was made in order to increase the accuracy of statistics for which the data may not follow the normal distribution, in order to give a more meaningful interpretation of the analysis in the discussion.

## Chapter 5 Results (1): The participants and their Keitai-mail use

This chapter discusses the participants of this study, how they use Keitai and Keitai-mail, and what Keitai-mail data was obtained.

### 5.1 Biodata of the participants

This section explains the profile of participants and their use of Keitai-mail. The participants in this study were 60 Japanese young people aged 18 to 30. The participants were categorised into two groups by gender; each group (i.e., male and female) had 30 participants. The distribution of age is illustrated in Figure 5.1 (to show the tendency of the whole picture as well as the number of each item, the figure includes a graph and a Table below the graph). The average age for each group was as follows: 24.4 for Male, 23.8 for Female, and 24.1 overall.

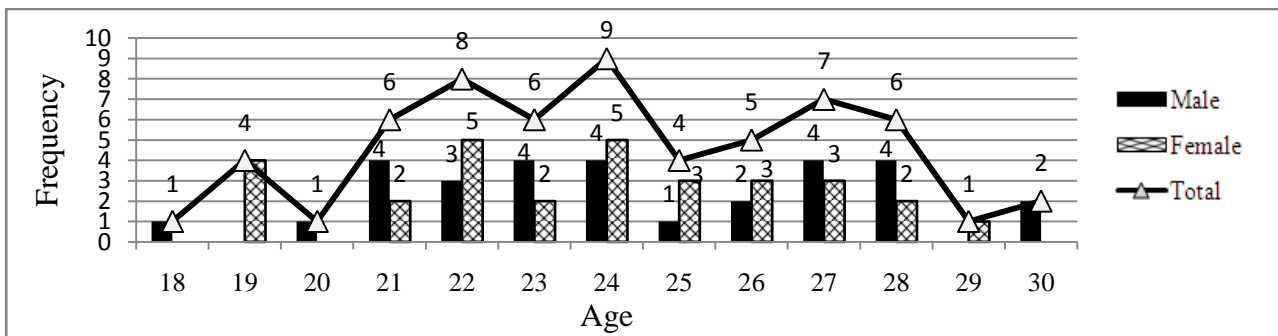


Figure 5.1 Age of the participants

With regard to occupation, participants were categorised based on their current educational status: students or non-students. Twenty-eight participants were studying in educational institutions (Male=15, Female=13) and 32 participants had left school already (Male=15, Female=17). ‘Non-students’ here means that they had some experience as a worker in society regardless of their current employment status (see Table 5.1).

Table 5.1 Occupations of the participants

Occupation	Male	Female	Total
Student	15	13	28
Non-student	15	17	32
Worker	12	10	22
Part-time worker	2	4	6
Unemployed	1	3	4

Whether a person is a student or not is significant in considering their life, including language and communication in the context of their circumstances. Workers are required to use formal and appropriate language in business and in their workplaces. In particular, the Japanese business world focuses on politeness in communication including use of polite language (Keigo) as a minimum

standard; this is much stricter than part-time employment settings, so fulltime workers are trained to be able to handle these registers appropriately. In other words, people who have experienced full-time work are basically much more competent in their language and communication in terms of formality or appropriateness in communicating with people they are not familiar with. Therefore, the students/non-students difference was a primary criterion of categorisation.

To further explain the non-student group in this study: this group can be briefly categorised into three groups: (full-time) workers, part-time workers, and unemployed. Twenty-three participants were employed on a full-time basis; 6 participants were working as part-time workers but have worked full-time in the past. Four participants did not currently belong to any company. In the past, it was common for workers to stay with a company until retirement in Japan, but now it has become more and more common for young people to change or quit their jobs to seek a new career or higher education (including studying abroad). Therefore, a current status of part-time employment or unemployment does not directly correlate to a lack of experience in the business world where a formal standard is required, and therefore, differences in terms of language use and competency among these three groups could not be identified, as all participants actually had experience of working on a full-time basis. Therefore, this study regards the three groups as basically the same.

With regard to place of data collection, Table 5.2 shows where the participants actually lived when data was collected. In addition, Table 5.3 shows where participants had spent most of their lives. As these two Tables show, many participants had come to urban areas such as Tokyo or big cities in Kansai such as Osaka from their original place of residence.

Table 5.2 Participants' place of residence

Item	Male	Female	Total
Tokyo	18	7	25
Kanto area other than Tokyo	2	4	6
Kinki (Kansai)	6	11	17
Kyushu	1	8	9
Others	3	0	3

Table 5.3 Participants' home town/ longest place they had lived

Item	Male	Female	Total
Hokkaido	1	1	2
Tohoku	1	1	2
Kanto	6	8	14
Chubu	3	1	4
Kinki (Kansai)	10	10	20
Chugoku	4	0	4
Kyushu	2	8	10
Others	3	1	4

As for information on mobile phone use by the participants, firstly, the number of participants using particular Keitai companies is as follows: Docomo 28 (Male: 15, Female: 13), SoftBank 11 (Male: 7, Female: 4), and au 21 (Male: 8 Female: 13). In addition, to investigate how familiar participants were with the functions and manipulation of Keitai and Keitai-mail, they were asked several questions about this on the questionnaire. The following sections demonstrate their use of Keitai and Keitai-mail through the answers given. (In the following, the descriptive statistics exclude improper/ineffective answers which did not follow the instructions, so for some questions, the total is not equivalent to the number of participants, 60).

Figure 5.2 shows how long they had used a Keitai as a communication medium. On average, the male participants had used their Keitai for 8.1years and the female participants for 8.7 years. Overall, the participants had had Keitai for 8.4 years. This figure also indicates that all participants had used Keitai for at least 5 years regardless of their age. Therefore, it can reasonably be said that all participants in this study were quite familiar with Keitai use in general. The questionnaire also asked “How long have you used this mobile phone?” (Question 1-2), to see how good they were at using their current Keitai (Figure 5.3). The average duration of current Keitai use by all participants was 14.47 months (1 year and 2 to 3 months): for males 14.78 months, for females 14.18 months.

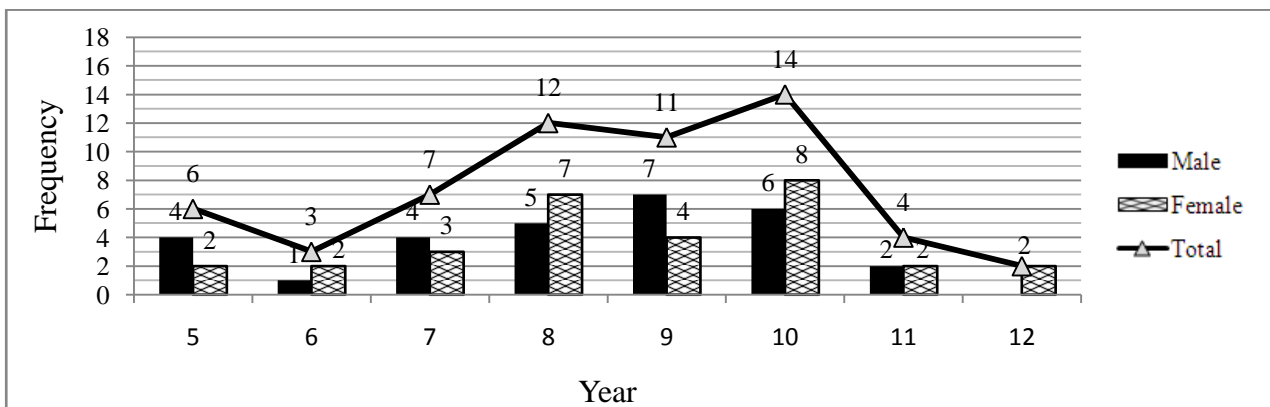


Figure 5.2 Duration of Keitai use

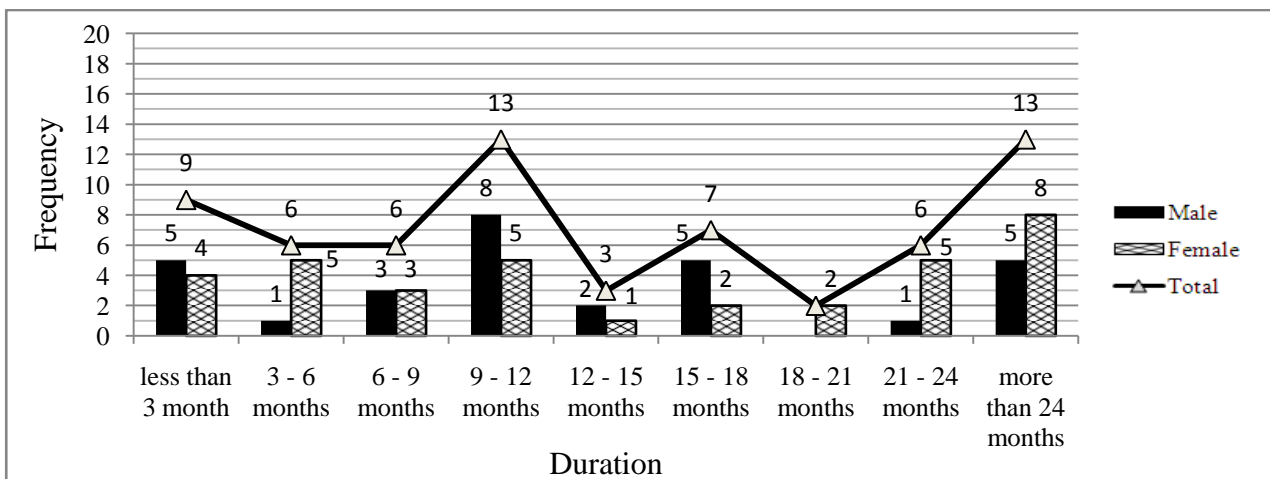


Figure 5.3 Duration of possession of current Keitai

Figure 5.4 illustrates how participants perceived the ease of using their current Keitai (Question 1-3a, “Is your mobile phone easy to use?”). The average scores for this question are: for males, 5.17; for females, 4.7; overall, 4.93. This shows that although the male participants were more satisfied with the functions of Keitai in terms of ease of use, all participants generally had a positive sense. This is also visually obvious as shown in Figure 5.4: the graph is negatively skewed and many gave a higher mark.

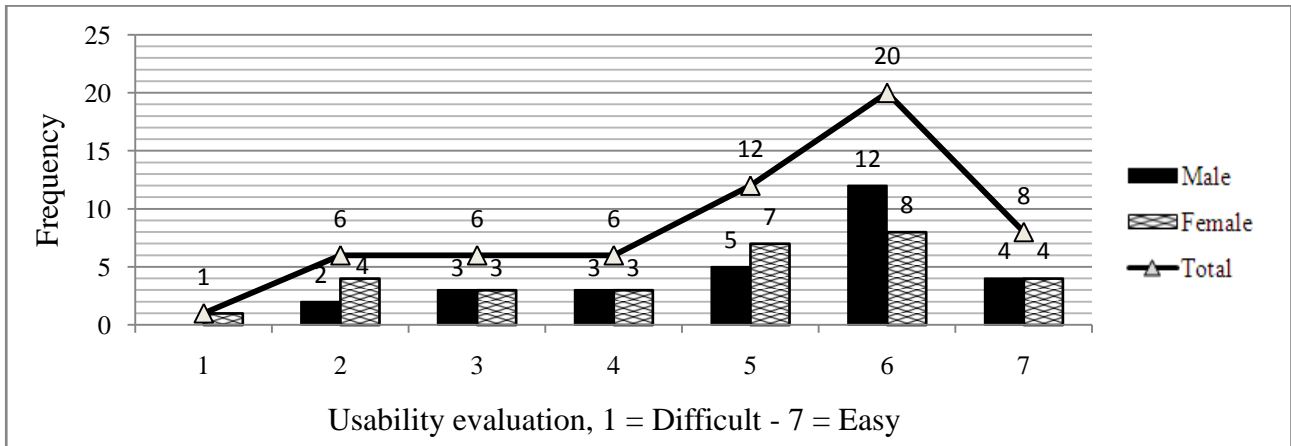
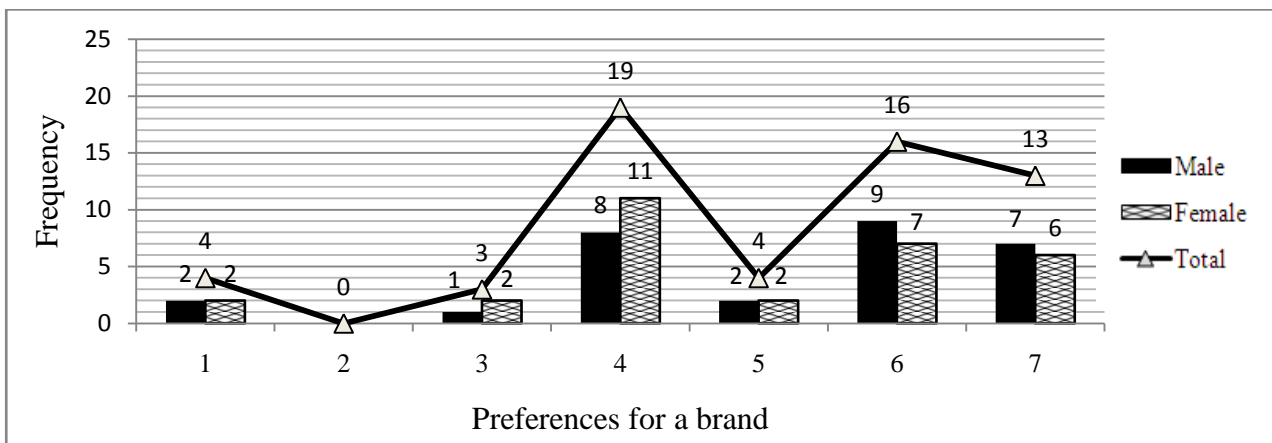


Figure 5.4 Participants' evaluation of how easy their Keitai is to use

Figure 5.5 encapsulates the answers to Question 1-6a, “When you buy a new mobile phone, do you prefer to buy a phone which is produced by the same company by which your previous mobile phone was produced?”, to gain additional information on their familiarity with Keitai use. Since the same brand, in particular the same type of Keitai, is equipped with the same or similar interface as its previous model, users do not need to learn how to use a new phone.



Note. 7: preference to have the same brand or model; 4: no special preference in choosing a new Keitai; 1: preference to have a different brand or model (Average: Male=5.17; Female=4.87; Total=5.07)

Figure 5.5 Participants' preferences for the brand of Keitai.

Figure 5.5 shows there were two groups of users: those who preferred to use the same Keitai brand or type and those who did not care about the brand as their first criterion in choosing a Keitai.



In regard to Keitai functions, Question 1-8a asked “Which functions of mobile phones do you frequently use? (Check all that apply)”. Table 5.4 indicates that phone calls and Keitai-mail were the major functions the participants used. Keitai-mail were more used than the phone call function, which is the primary function of Keitai. What this means is that Keitai-mail have become a major communication medium like phone calls, and is the most frequently used method of communication in Japanese society today.

Table 5.4 Frequency of use of Keitai functions

Item	Male		Female		Total	
	F	S	F	S	F	S
1. Phone call	26	0	19	4	45	4
2. Email	25	1	29	0	54	1
3. Internet access	18	0	16	1	34	1
4. Camera	8	4	13	3	21	7
5. Music player	3	0	4	0	7	0
6. Other	1	0	8	0	9	0

*Abbreviations.* F: Frequently, S: Sometimes

Table 5.5 also provides evidence of frequent use of Keitai-mail by the participants. Table 5.6 shows the answers to Question 3-4, “How much do you use e-mail in the places below?”; participants indicated on a scale how frequently they used Keitai-mail at the places nominated.

From Table 5.5, it can be seen that participants used Keitai-mail mainly in places where they spent a relatively long time: home, school/workplace, and transportation. This can be interpreted as showing that Keitai-mail exchange has become a part of their lives and that is why they use Keitai-mail frequently in such places. In other words, because they use Keitai-mail where they spend a lot of time, they exchange Keitai-mail frequently.

Table 5.5 Places where participants use Keitai-mail

Item	Male	Female	Total
Your place	5	5.67	5.34
School/Workplace	4.24	4.37	4.31
On transportation	4.45	5.53	5.00
On the street	3.83	3.57	3.69
Restaurant (including fast food shops)	3.72	4.01	3.90
Amusement sites	2.93	3.13	3.03

*Note.* Score 7 means participants use Keitai-mail in that place very frequently

In addition to frequency, the researcher asked the participants to evaluate how they felt about the usability of each function: in other words, could they easily use each function or not (Question 1-8b: “How do you evaluate the usability of these functions? Please evaluate the usability for each function (please leave blank for functions you don’t use)”), as shown in Table 5.6.

Table 5.6 Usability evaluation for each function of Keitai

Item	Male		Female		Total	
	Point	F	Point	F	Point	F
1. Phone call	5.76	29	5.6	30	5.68	59
2. Email	5.48	29	5.47	30	5.478	59
3. Internet access	4.88	25	4.96	25	4.92	50
4. Camera	4.68	25	4.67	30	4.67	55
5. Music player	4.23	13	4.44	18	4.35	31
• Calculator	3.67	3	4.67	6	4.33	9
• Alarm	5.89	9	5.8	10	5.84	19
• Infrared data communication	1	1	6.5	2	4.67	3
• Dictionary	6.5	2	2.33	3	4	5
• Calendar	4.67	3	6	2	5.2	5

*Note.* The average point on a 7-point scale of evaluation – score 7 means ‘high usability’

*Abbreviation.* F: Frequency of participants who use/evaluate the function

Table 5.6 demonstrates the average score of usability evaluation for each function and the number of participants who gave an answer for each function. Participants evaluated the usability of Keitai-mail as roughly approximating that of a phone call, better than other functions such as Internet access or camera. Therefore, it can be predicted that Keitai-mail are as easy to use as the phone function of Keitai (its primary function) and most participants used Keitai-mail with almost the same ease in terms of usability.

Since Keitai-mail are a text-based communication medium, unlike a phone call, the usability of the input system was also evaluated by participants (Question 1-9a “How do you evaluate the input system of mobile phones?”). Figure 5.6 is a representation of this evaluation: the average scores by male, female and total participants are 4.72, 4.03, and 4.37 respectively, with participants regarding the input system as only minimally satisfactory in terms of usability.

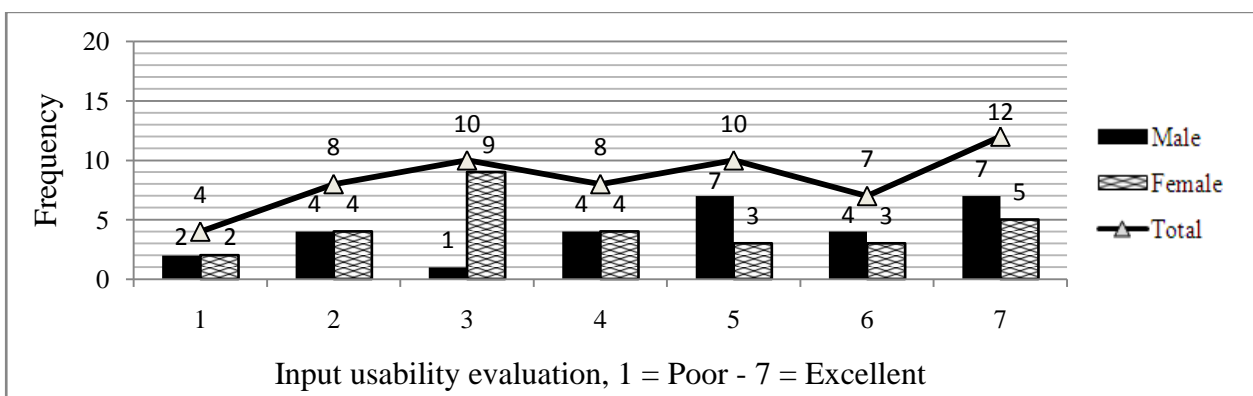


Figure 5.6 Usability evaluation for the Keitai input system

Even though the input system is not rated as excellent in terms of usability for the participants, Figure 5.7 (the answers to Question 1-10 “Have you become used to input on mobile phones?”) shows that most participants had got used to Keitai-mail quite well (average score of male=6.09,

female=6.57, and total=6.32) and a large number answered that they were quite familiar with it (43 people scores 7).

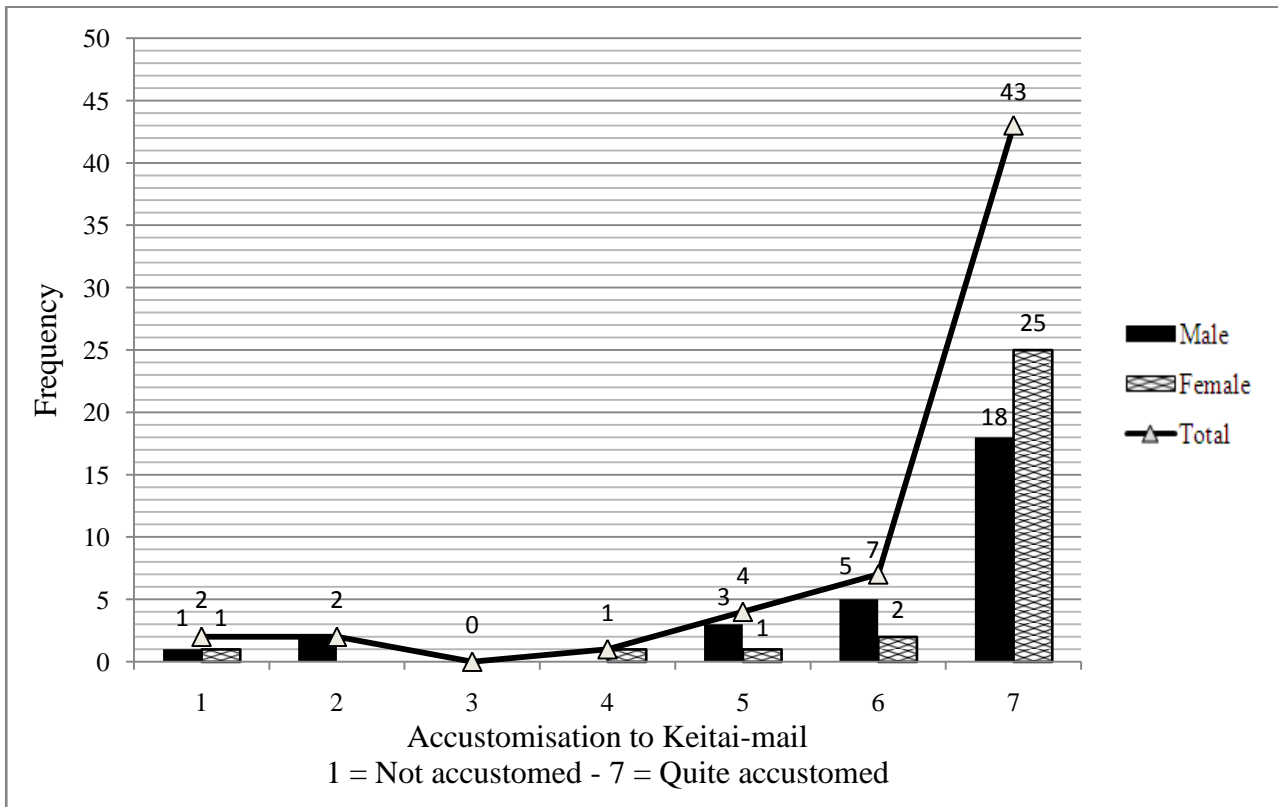


Figure 5.7 Extent to which respondents are accustomed to Keitai-mail use

Participants' perceptions of their familiarity with Keitai-mail manipulation were more favourable than those of Keitai use as a whole (Figure 5.8 from Question 1-11, "On the whole, have you become used to using mobile phones?"), and these results indicate how well participants have become used to using Keitai-mail.

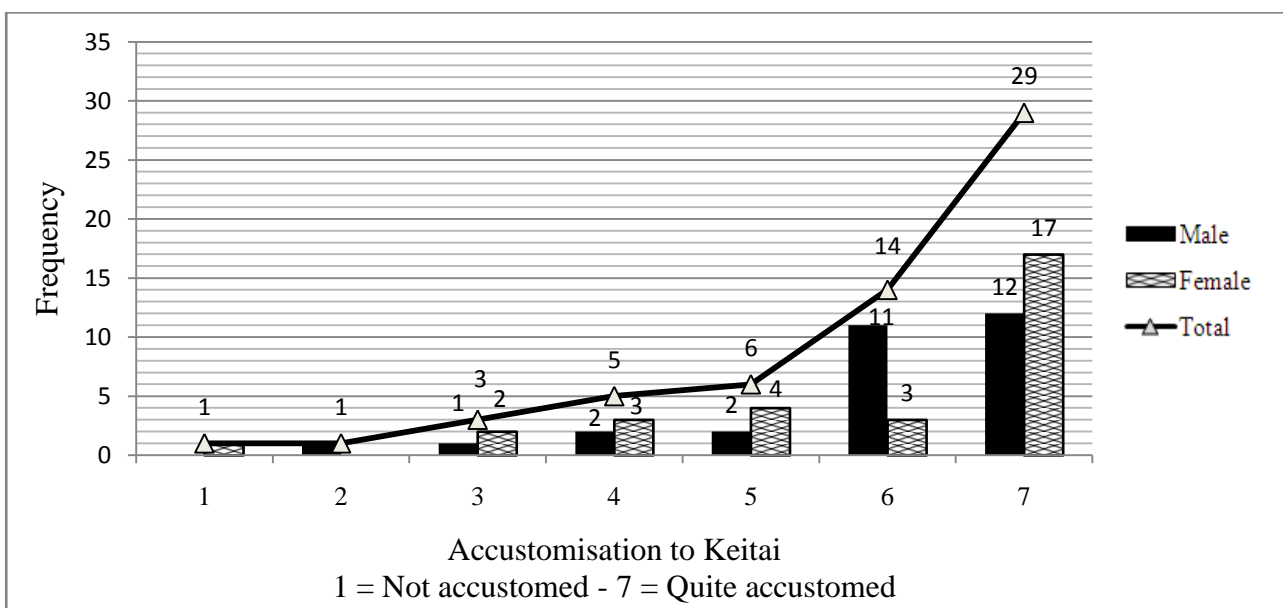


Figure 5.8 Extent to which respondents have become accustomed to using Keitai

Overall, there are some differences between males and females in terms of their perception of how accustomed they are to Keitai-mail use: male participants were slightly more confident in general Keitai use, while female participants felt they had become used to communicating via Keitai-mail more than did male participants. However, participants were generally quite adept users of Keitai-mail who used it as a major communication medium in their daily lives.

## 5.2 Keitai-mail use

This section shows how participants used Keitai-mail as a communication medium based on responses to each closed question on the questionnaire.

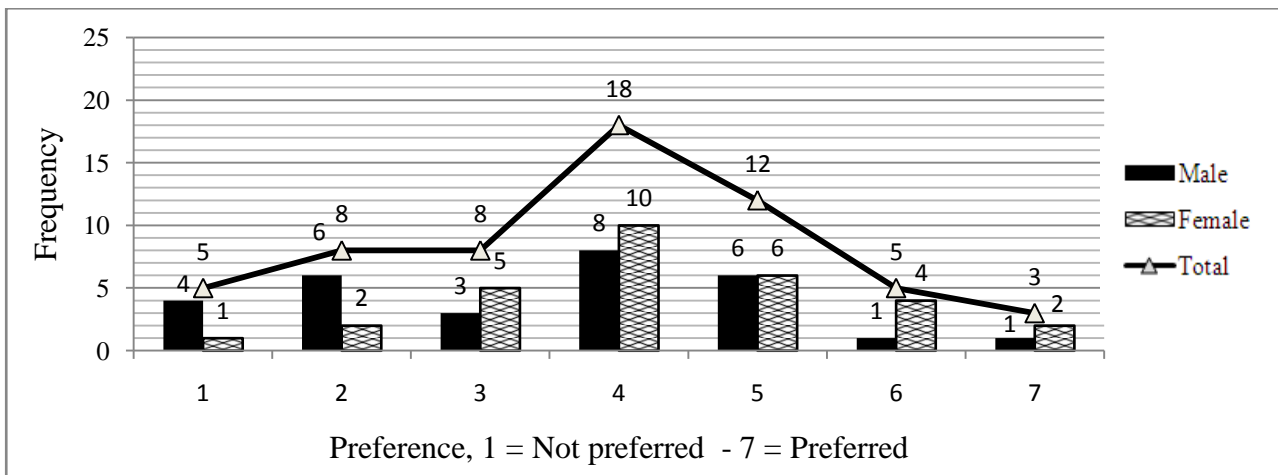
Table 5.7 shows how they managed their Keitai-mail text data on their Keitai (Question 3-6 “How do you keep your e-mail? (Check all that apply)”). Some participants used methods which distinguish between Keitai-mail from different interlocutors. This indicates that they evaluate the importance of Keitai-mail as another text communication medium and tend to treat messages from an important person more carefully than messages from others. Other participants did not manage their Keitai-mail; this also results from the tendency to use Keitai-mail as a natural part of daily life, with no need to put extra effort into using it.

Table 5.7 Management methods of Keitai-mail

Item	Male		Female		Total	
	F	S	F	S	F	S
1. I protect important e-mails.	16	1	15	3	31	4
2. I create folders and keep received e-mails separately based on senders.	9	0	12	1	21	1
3. I frequently delete e-mails with short messages (ex. “thank you” or “I see” in a single e-mail.)	0	0	2	0	2	0
4. I frequently delete unimportant mails such as junk mail or e-mail from mailing lists.	4	0	14	0	18	0
5. I delete all messages when the sent/received box is full.	1	0	6	0	7	0
6. No particular method.	9	0	7	0	16	0

*Abbreviations.* F: Frequently apply, S: Sometimes apply

As an overall evaluation of Keitai-mail communication, the participants were asked “What do you think of creating e-mail on a mobile phone?” (Question 3-9a). As Figure 5.9 shows, even though Keitai-mail are a communication tool which is used frequently, participants did not have a special preference for this communication medium, although female participants did show a slightly higher preference for it.



Note. Average: Male=3.45, Female=4.27, Total=3.86

Figure 5.9 Preference for Keitai-mail communication

This section has shown results relating to the use of Keitai-mail by participants. Overall, although there were personal differences in their use of Keitai-mail, they regarded Keitai-mail as nothing out of the ordinary, just as an ordinary part of life.

### 5.3 Information on Keitai-mail texts

This section demonstrates the results from actual Keitai-mail text data obtained through data collection. The numbers of Keitai-mail each participant provided vary: from 0 to 2500 (sent: 0 to 1000, received: 0 to 1500). Some offered Keitai-mail of only one direction (i.e., only sent mail, or only received mail) and some provided all data kept in their Keitai. This imbalance may seem to give rise to interpretational problems. However, fundamentally this kind of raw Keitai-mail database is not free of imbalance in terms of numbers of Keitai-mail exchanged with each interlocutor and average Keitai-mail exchanged in a day, even in cases where some participants provided a full 2500 Keitai-mail. In addition, the memory capacity of each Keitai is different and some participants' Keitai were not fully used because they had only been using their Keitai for a short time and/or because of their preferences in handling Keitai-mail. In some cases, participants saved a very old message if it was important for them, such as birthday messages, which disturbs the equal distribution of date of Keitai-mail exchanges. Also, as shown below, the database from some participants included a lot of non-communication data (e.g., advertisements or mailing lists). Moreover, this study does not discuss detailed exchanges which require a careful consideration of properties of each interaction member. For these reasons, this study can be considered not to be significantly influenced by this imbalance in the number of Keitai-mail provided by each participant.

The Keitai-mail fall into two basic categories: those which are for the purpose of communication with a person they intended to contact and those which are not. While the former

reflect the language of senders even if they follow a particular style in their language use, the latter involve some types of language use involving registers, which influence the natural use of language.

Table 5.8 Keitai-mail obtained for this study

Keitai-mail Analysed	Male		Female		Total	
	Count	Average	Count	Average	Count	Average
Receive	10,234	(341.13)	16,168	(538.93)	26,402	(440.03)
Send	8,482	(282.73)	8,411	(280.37)	16,893	(281.55)
Total	18,716	(623.86)	24,579	(819.3)	43,295	(721.58)
Excluded mail					9,892	(164.87)
Whole total					53,187	(886.45)

Note. The number in parentheses shows the calculated average of Keitai-mail that each group offered, as a reference of characteristics of the corpus.

Table 5.9 shows the categories of Keitai-mail omitted in this study, followed by detailed information on each category. The Keitai-mail collected included several different types in terms of senders and purposes. This study excludes the Keitai-mail categorised into the categories shown below:

Table 5.9 The numbers of Keitai-mail excluded from the main analysis

Type	Frequency	Type	Frequency
Advertisement	6,484	Forwarding	113
Business Mail	248	Quotations	37
Mailing lists	1,646	Repetition	17
Net Auction	213	Empty	51
Other language	868	Garbled	15
Romaji	44	Missing information/Nonsense	145
		Total	9,892

#### *Advertisements (and associations)*

When people register for certain services through their Keitai, in particular free services such as mailing lists or Decome pictures, the service providers send their (sponsors') advertisement messages to the Keitai (similar to the manner in which a PC receives advertising e-mails when registering with some business sites). This category includes junk e-mail sent by some companies without permission (these two cannot usually be differentiated). In terms of literacy practice, such mails might conceivably have some influence on the literacy skills of Japanese recipients since the length of messages is much longer than normal and the composition styles could function as a sample of current Keitai-mail composition. However, in practice, most of them are ignored, or are simply glanced at without specific attention being paid, not fully read (as many people do for advertisements in PC e-mail). The language itself also uses a different register compared with general exchanges. Therefore, advertisement e-mails are not analysed in terms of their language in this study.

### *Keitai-mail for business communication*

Today, Keitai-mail have become a tool to communicate with one's workplace (particularly when the work is a part-time job). The Keitai-mail collected included many business notices (such as schedules). The language of business in Japan is formal and this is an important part of language practice in Japanese. However, in e-mail communication, a large part of the messages is formulaic and the use of Keitai for this type of communication itself is also still very limited, usually just for informing an employer of which day they can work in filling the original templates (as far as was found in the researcher's dataset). Therefore, this category is not discussed in depth.

### *Mailing lists/Sending to multiple interlocutors*

Mailing lists enable people to send messages to many people at one time, and this accounts for a certain proportion of Keitai-mail exchange today because of its convenience. However, the language on mailing lists is quite varied, and this entails some complicated issues when conducting discourse analysis compared with other general daily exchanges:

- The mood of mailing lists

The purposes of mailing lists vary. They are used in groups of friends (such as students in the same seminar clubs), and in some cases, for strangers connected with particular training courses or workplace connections. The former can entail an easy, relaxed communication manner which does not require formal polite language, while the latter needs polite, serious, considered and sometimes long explanatory language in the composition of the Keitai-mail. To discern the mood only by reading through the Keitai-mail texts is difficult if a certain degree of formality is intended and could lead to misinterpretation of analysis because of misjudgement of the mood.

- The position of senders in the mailing list communities

What kind of Japanese language is used depends on the relative status of senders and receivers in many respects. Keigo are meant to be used in communication with seniors or people in a higher position, as well as with people with whom one is not particularly familiar. Other registers are also chosen in relation to possible receivers in the mailing list communities. This makes it difficult to investigate the intention of senders in applying a particular type of discourse.

- Topics

The topics of mailing lists vary, but mainly the contents are schedule information and reports on particular events by the mailing list community. These contents tend to be a pattern rather than a creative act which reflects more clearly the senders' intention.

For these reasons, mailing lists need particular attention in order to analyse their content

clearly, and these properties make them unsuitable to seeking the answers to this study's research questions.

#### *Keitai-mail for the purpose of net auctions*

Net auctions are popular among young Japanese people and Keitai-mail are the main tool for communication with other participants. The exchange partners vary and they use a variety of registers based on the properties of interlocutors. As with mailing lists, it is difficult to understand the interlocutors' intentions as common templates are provided by the company to avoid any communication difficulties. Net-auction e-mails are therefore also not relevant for answering the research questions and are omitted in the main analysis.

#### *Keitai-mail composed in languages other than Japanese*

Some Keitai-mail collected were composed in other languages such as English. These exchanges occurred between Japanese and non-Japanese native speakers of other languages, such as exchange students and working-holiday workers. This category includes Keitai-mail composed using only Romaji. The reasons for exclusion are: 1) the language input system is different from normal Japanese composition and their mode of creation also differs from the creation of Keitai-mail in Japanese, 2) the interlocutors are likely to be non-Japanese speakers of other languages whose feelings about Keitai-mail creation are different from Japanese native speakers (in Japan), 3) even when exchanges occur between Japanese native speakers: i) their language proficiency in other languages is not the same as in Japanese and the e-mails can therefore lack some information or contain unintended messages which do not reflect their normal use of language in Japanese, ii) their language creation mode in languages other than Japanese is different because of the input system (Japanese Keitai do not provide a convenient input system for languages other than Japanese).<sup>40</sup> Therefore, Keitai-mail in languages other than Japanese do not represent literacy practices in Japanese and this study does not analyse them. Some intentional uses of words/phrases in other languages in composition (such as greeting messages) have been kept.

#### *Quotations/Forwarded messages*

'Quotations' refers here to use of words/phrases from people other than the Keitai-mail senders, including famous musicians, famous authors, or even Keitai-mail from friends (which are also *forwarded messages*). Messages from third parties are vague since their intention cannot be seen in interaction between actual senders and receivers. These types of messages are not their own

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<sup>40</sup> Today, however, iPhones or other smart phones available in Japan have the same or similar input system as mobile phones outside Japan.



and may not reflect the original sender's language practices.

#### *Messages repeated in a very short time*

Sometimes the same messages were sent a minute or even a second apart, simply because of mistaken manipulation of a Keitai-mail function. In this case, the first message was kept and the others omitted, since this was not an intentional act on the part of the senders.

#### *Empty messages*

Some messages did not have any content in the main text, such as when a sender just sends a picture as an attachment.

#### *Garbled messages*

For technical reasons,<sup>41</sup> some Keitai-mail were totally garbled and could not be analysed.

#### *Missing information/Nonsense*

A few e-mails lost essential information for technical reasons (backup specification of Keitai itself and the software, as well as inter-platform specification differences), and this made it impossible to interpret the message in a reasonable manner. In very rare cases, the message itself was totally nonsense and only the exchange partners knew the real messages. These messages were excluded from the analysis as well.

#### *Summary*

The Keitai-mail categories shown above are not directly related to the research questions, or are too vague to permit a detailed analysis of their properties. Therefore, these messages are not used for purposes of investigation in this study as they do not permit proper investigation of language and the underlying motivation for composition.

### 5.4 Conclusion

This chapter has shown who the participants were and what the collected Keitai-mail were. The participants were highly accustomed to Keitai and Keitai-mail use, and had long experience in communicating by this means. The Keitai-mail collected included not only texts for communication purposes but also other uses, in not only Japanese but also alphabet languages. The distribution of

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<sup>41</sup> The main reason is that the platform does not have an appropriate encoding system which can reflect the specifications of the Keitai-mail platform. Sometimes Keitai-mail exchanges between different carriers or PC-Keitai-mail exchange cause this trouble.

the participants' biogeography as well as the content of Keitai-mail including those for non-communication purposes such as business mail indicate that the corpus of collected data is a quality corpus which enables analysis of general trends in Keitai-mail as well as more focused topics based on the research interests of the study. The following chapter introduces the actual data found in the corpus.

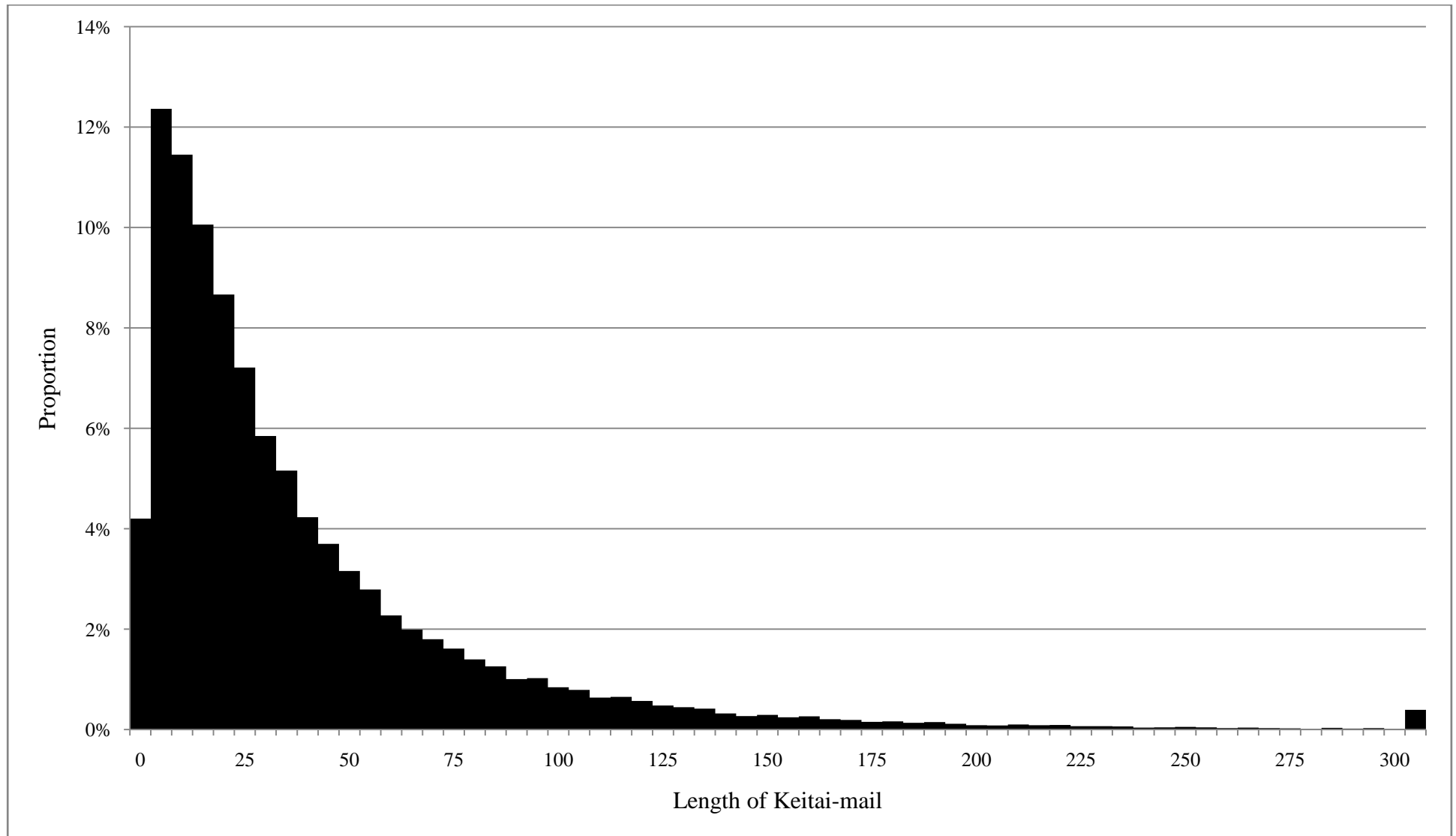
## Chapter 6 Results (2): Language aspects of Keitai-mail

In order to answer “What are the features that characterise the styles that are drawn upon?” based on Fairclough’s criterion of style, where ‘style’ in this study means the style that is characteristic of CMC, this chapter analyses what kinds of particular uses of language can be seen in the Keitai-mail corpus. Given that Keitai-mail are written texts, the linguistic aspects which are the main focus of this chapter are mainly orthography-related, including unusual uses of each syllable (phonological representation) and intentional uses of symbols and emoticons (another form of body language that conveys some extra inferences beyond the textual meaning of the text). To enable a focus on language use specific to Keitai-mail, some common words or phrases are chosen and possible patterns are investigated.

### 6.1 Overall

This section examines the overall picture of language use, mostly orthography-related, in the Keitai-mail corpus. For effective presentation of the discussion, this thesis uses the term ‘moji’ to count other things as well as the five scripts used in writing Japanese (Hiragana, Katakana, Kanji, Romaji [the alphabet], and Arabic numerals). Other symbols such as punctuation and emoticons are also counted as one moji if they occur once in texts. Kaomoji are a combination of pre-set symbols, but since Kaomoji indicate their meaning through this combination, one set of Kaomoji is also counted as one moji (e.g., the Kaomoji ‘m()m’ can be counted as five moji if we focus only on the number of symbols it contains, but ‘m()m’ indicates the meaning of ‘bowing’ using these five symbols; this Kaomoji is therefore counted as one moji).

In total, 43,295 Keitai-mail were collected in this study. This number includes 26,403 received Keitai-mail and 16,892 sent Keitai-mail. On average, these Keitai-mail consist of approximately 41.641 moji, made up of 39.024 moji from the five basic scripts and 2.617 emoticons. Figure 6.1 presents the proportion of Keitai-mail by length.



Note. Keitai-mail over 300 moji long are grouped together

Figure 6.1 Length of Keitai-mail

In regard to the length of composition, this study's survey asked how participants actually use abbreviations as a means of economizing on the number of moji in Keitai-mail, as shown in Figure 6.2 which presents responses to the question "Do you frequently use abbreviations when creating e-mail on mobile phones?" (4-1a). The average scores are male 4, female 5, and total 4.56. This result suggests that participants do prefer to use abbreviations in Keitai-mail on the whole, the major reasons being to ease the effort of input itself as well as that the mode of Keitai-mail requires a quick response in interaction. Decreasing the number of key strokes is an advantage in writing Keitai-mail, in particular for those who feel burdened and tired by the process. The result as a whole also suggests that since many use abbreviation in Keitai-mail, this influences both the length of content and the overall impression of the message since abbreviation gives a different impression compared to orthography.

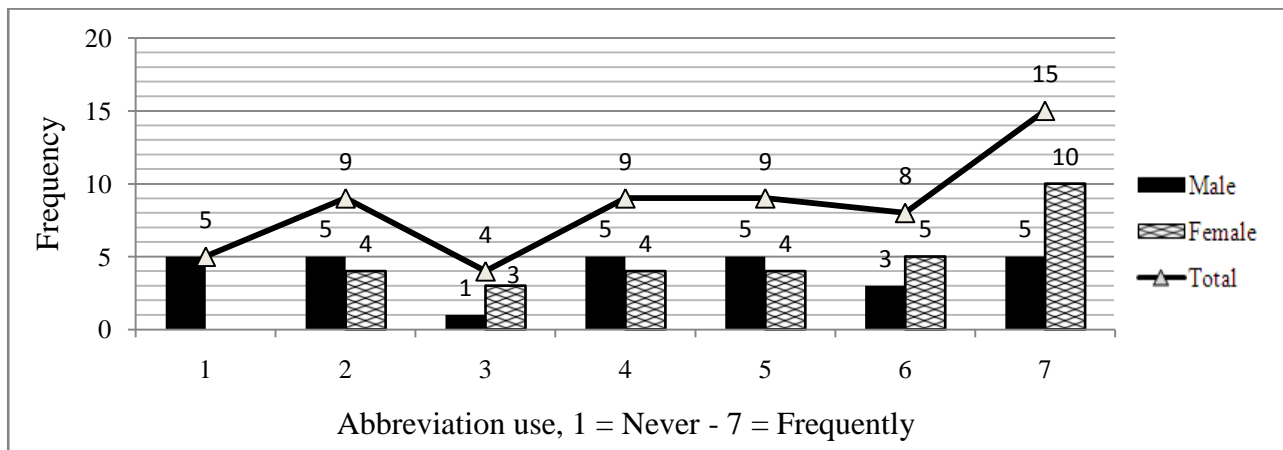


Figure 6.2 Frequency of use of abbreviation

With regard to the components of the Keitai-mail, Table 6.1 summarises how much each script is used and Figure 6.3 illustrates this. There are 1,801,243 moji in total and Hiragana are included 1,049,492 times, about 59.70%, so Hiragana occur in more than half of the texts. Kanji follows next, and symbols other than the five scripts were found to be the third most frequent component. These non-script symbols include punctuation marks (e.g., ‘, ’, ‘。’, parentheses), other pre-installed symbols (e.g., ☆), and emoticons. The proportion of each type of symbol is similar to that which was reported in 2002 by Kimura (see Section 3.3), and the use of symbols in Keitai-mail with ten-key input specification is a common tendency of Japanese people from a diachronical perspective.<sup>42</sup>

<sup>42</sup> Smart-phones with the touch panel input platform provide a keyboard interface, which will differentiate the use of each script compared to pre-smart phone generations.

Table 6.1 Frequency of occurrence of each type of symbol

Type	Frequency	Proportion	Type	Frequency	Proportion
Kanji	379,758	21.60%	Romaji	2,300	0.13%
Hiragana	1,049,492	59.70%	Arabic numerals	7,542	0.43%
Katakana	101,561	5.78%	Etc	210,279	11.96%
Half size Katakana	7,016	0.40%	Total	1,801,243	

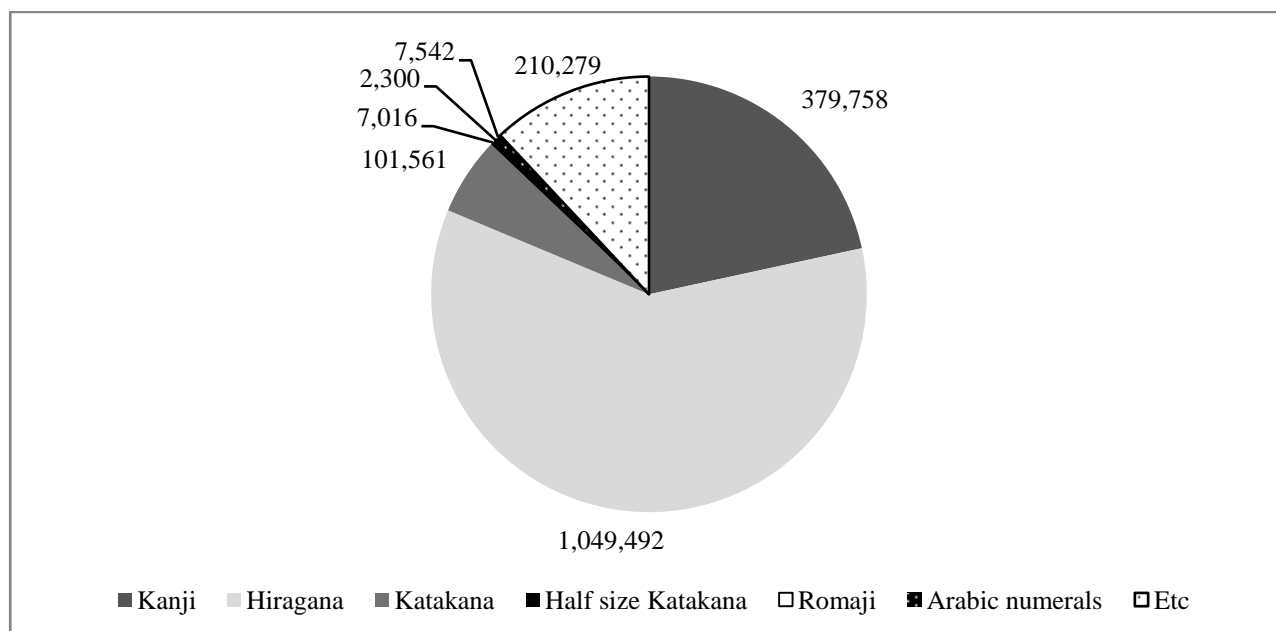


Figure 6.3 Proportion of each symbol

To elaborate on the non-script components, Table 6.2 depicts how many emoticons were found in the corpus in terms of type of emoticon per Keitai-mail message analysed. This table shows the number of each type of emoticon and its average use. Regarding Emoji and Decome, people use them in two different ways: just as a symbol, as a picture and sometimes as a replacement for words. Broadly speaking, 10% of these picture icon uses are for replacement purposes.

Table 6.2 Emoticons in Keitai-mail

Type	Frequency	<i>M</i>	Type	Frequency	<i>M</i>
Emoji as a picture	87,669	2.025	Decome as a picture	12,496	0.289
Emoji as replacement	7,627	0.176	Decome as replacement	1,460	0.034
Emoji total	95,296	2.201	Decome total	13,956	0.322
Kaomoji	4,044	0.093	Total	113,296	2.617

Emoticons account for a large proportion (62%) of the total number of non-script components; this shows that these emoticons have become a fundamental part of Keitai-mail to the extent that their use surpasses that of Katakana, a basic Japanese script.

*Kanji in Keitai-mail*

In the whole corpus, there are 2,156 different Kanji in a total of 314,148 occurrences. The number here excludes Kanji used in proper names (e.g., names of places, shops) and related usage in order to analyse what Kanji are used for general communication purposes. Table 6.3 shows the top 50 Kanji appearing in the corpus. It shows that 日 was the most used, accounting for about 3.9% of Kanji use. The top 10 Kanji each account for over 1% of total Kanji use, while 2,147 Kanji appear less frequently than to account for 1 %.

Table 6.3 Top 50 Kanji

Rank	Kanji	Meaning	F	P	Rank	Kanji	Meaning	F	P
1	日	Day/ Sunday	12,051	3.858	26	楽	Enjoy	2,014	0.645
2	今	Now	9,353	2.994	27	本	Book	1,943	0.622
3	行	Go	6,655	2.131	28	張	Tension	1,910	0.612
4	大	Big	4,161	1.332	29	人	Human	1,893	0.606
5	思	Think	3,763	1.205	30	遅	Delay	1,891	0.605
6	明	Light	3,728	1.194	31	分	Minute	1,886	0.604
7	会	Meet	3,300	1.057	32	前	Forward/ Before	1,880	0.602
8	気	Feel	3,278	1.049	33	疲	Tired	1,864	0.597
9	事	Matter	3,175	1.017	34	見	See	1,850	0.592
10	話	Talk	3,123	1.000	35	月	Monday/ Moon	1,840	0.589
11	連	Connect	2,872	0.920	36	曜	Days of a week	1,758	0.563
12	来	Come	2,836	0.908	37	入	Enter	1,757	0.563
13	出	Out	2,818	0.902	38	頑	Try	1,738	0.556
14	絡	Connect	2,684	0.859	39	電	Electricity	1,651	0.529
15	帰	Go back	2,617	0.838	40	学	Study	1,632	0.523
16	合	Fit	2,583	0.827	41	生	Live	1,620	0.519
17	時	Time	2,478	0.793	42	良	Good	1,559	0.499
18	夫	Husband	2,364	0.757	43	当	Hit	1,540	0.493
19	願	Hope	2,357	0.755	44	変	Change	1,521	0.487
20	丈	Length	2,345	0.751	45	着	Arrive	1,499	0.480
21	間	Between	2,258	0.723	46	終	Finish	1,495	0.479
22	解	Understand	2,156	0.690	47	定	Confirm	1,455	0.466
23	一	One	2,143	0.686	48	仕	Work	1,440	0.461
24	言	Comment	2,132	0.683	48	夜	Night	1,440	0.461
25	了	Finish	2,093	0.670	50	予	Prepare	1,392	0.446

*Abbreviations.* F: Frequency, P: Proportion

In some cases, several of the most frequently used Kanji combine in one word such as 4,208 occurrences of 今日 ('today'), 3,218 occurrences of 明日 ('tomorrow'), 2,649 occurrences of 連絡 ('reporting'), and 2,334 occurrences of 大丈夫 ('OK'). The Kanji in Table 3 can usually be found in

Japanese writing used alone (e.g., 3,216 occurrences of 今) or with a certain Hiragana (okurigana: for example, in 4,768 occurrences of 行く /i ku/, く is an okurigana), but some Kanji are found in compound words containing two or more Kanji as shown above. This boosts the number of Kanji appearing, even though some Kanji are not used so often with their original meaning, such as 夫 (ranked 18), of which the original meaning is ‘husband’ but which today is mainly used as a part of 大丈夫.

In terms of proportion, the top 50 Kanji account for 42.2% of total Kanji use; the top 100 Kanji (the Kanji ranked 100 are 加 (add) and 結 (tie), 718 occurrences each), for 57.8%; and the top 300 Kanji for 81.7% (要 (need) is the 300th Kanji, 208 occurrences). This shows that even though there are over 2,000 Kanji used in the Keitai-mail, only a limited number are used frequently.

In addition, most Kanji are from the Kaitei Jōyō Kanjihyō (Revised List of Characters for General Use). 1,863 of the 2,156 different Kanji are from this list, i.e., 86.4% of the total number of different Kanji. In particular, 312,343 occurrences of Jōyō Kanji account for 99.4% of all Kanji occurrences. This is because the Kanji on the Revised List are the Kanji which are considered essential for writing Japanese. The total number of characters on the Revised List is 2,136; 87.2% of them are included in Keitai-mail in some way.

As for Kanji which are not part of the Revised List, Table 6.4 shows the top 5 most frequently used non-Jōyō Kanji. 嬉 occurs 416 times in the whole corpus, ranking 170th among all Kanji occurrences. Table 6.4 shows that 逢 appears only 38 times even though this is the fifth most frequent non-Jōyō Kanji in Keitai-mail, and Kanji outside the Jōyō Kanji list are rarely used. However, 嬉, and even 貰, are often used. They are in the top 25% of high frequency Kanji. Therefore, these Kanji are very common.

Table 6.4 Top 5 non-Jōyō Kanji

Rank in total	Kanji	Meaning	Frequency
170	嬉	Happy	416
421	貰	Receiving gifts	127
634	繋	Connect	61
645	綺	Beautiful	57
772	逢	Meet	38

On the other hand, even though the revised Jōyō Kanji list contains 2,136 Kanji, 273 (12.8%) of these are not used in Keitai-mail as part of common daily literacy practice. At the same time, 152 Kanji are only found once in the corpus and 99 other Kanji appear only twice in these Keitai-mail exchanges. This indicates that Keitai-mail practices, or similar electronic-based written communications, show a degree of difference from the norm as a new communication medium.



One aspect relating to Kanji use in Keitai-mail is how participants actually feel about the use/appearance of Kanji, and Question 4-2a “Compared with handwriting, do you use more, or less Kanji when creating texts by mobile e-mail?” investigates this (Figure 6.4).

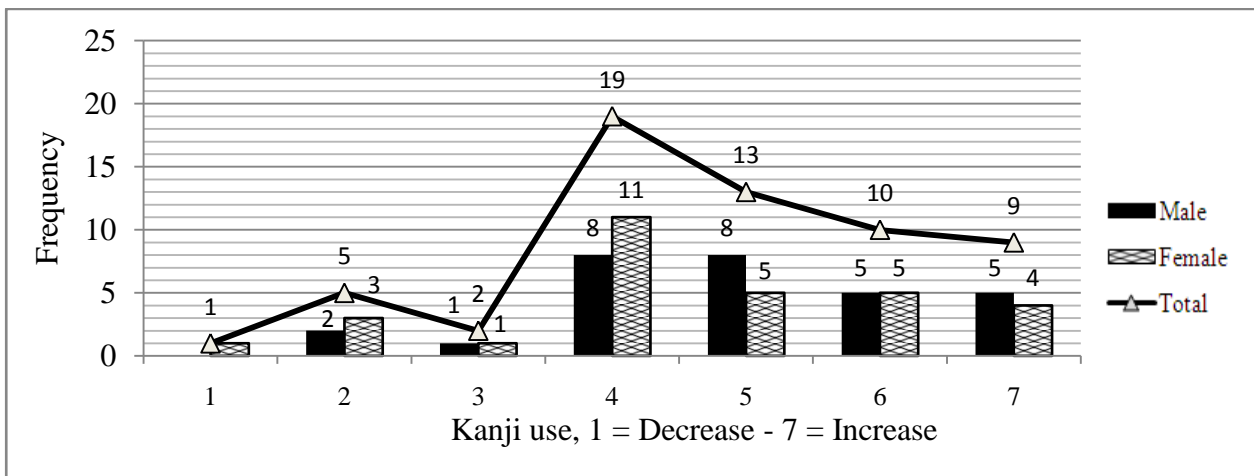


Figure 6.4 Proportion of use of Kanji

The results show that they feel there are more Kanji in Keitai-mail than other media. The main reason is the Kanji conversion system which enables them to input Kanji they can read even though they have not memorised how to write them. In some cases they prefer not to use Kanji and intentionally decrease the number of Kanji for mood creation purposes (since Kanji have an image of formality compared to Hiragana and Katakana), or even because they feel too tired to convert Hiragana to Kanji with an extra stroke. However, in general, Kanji are used when they can be used.

To sum up, since Kanji can be used both as single moji and in compound with other Kanji, the frequency ranking of each Kanji may not be what one might expect when considering only the meaning of the Kanji when it occurs alone (e.g., 夫, 了). However, almost all Kanji occurrences come from the revised Jōyō Kanji list, and they can certainly be seen frequently in daily communication. At the same time, a few non-Jōyō Kanji like 嬉 occur often in the corpus, and many Jōyō Kanji are used either very rarely or not at all.

Shibano (2009), giving his opinion on revision of the Jōyō Kanji list, argued that the data corpus of word frequency compiled by the national language section (Kokugoka) of Bunkachō has a significant imbalance in its data sources as well as being quite small. This means that the Jōyō Kanji do not correspond with Kanji used in normal Japanese daily life. That the Kanji found in Keitai-mail communication exhibit a different trend from the Jōyō Kanji therefore seems a natural phenomenon.

#### *Emoji as replacements*

The language of Keitai-mail texts departs from the normal conventions of written Japanese in

its use of emoticons for replacement purposes. Emoticons are a major component of Keitai-mail. Some of them are used to decorate texts to add extra visual effect, in most cases an exhibition of writers' state of emotion and/or a reflection of their underlying motivation as to how they would like to treat the atmosphere of exchanges and/or interlocutors (details discussed in Chapter 7). Others are used to replace parts of the text: either they are simply substituted for one of the five basic scripts and pre-installed basic symbols such as punctuation marks, or the meaning of the picture indicates that a symbol such as ✉ is a replacement for the whole word 'e-mail'. Both Emoji and Decome can be used for this purpose. This section discusses Emoji since they are pre-installed (i.e., the number is restricted) and therefore will exhibit a certain consistency in their use compared to Decome, which in theory have limitless applications.

There are a total of 7,627 Emoji (Docomo 2,983; au 3,964; SoftBank 680)<sup>43</sup> in the corpus which were used for this purpose of replacement. The replaced Emoji which play an essential part in composition and cannot be omitted to make sense of the texts are counted. For example, where there are two or more Emoji displaying question marks at the end of a sentence, only the first one is counted as an Emoji used as a replacement and the others are treated as just an extra decoration because the meaning of the sentence is clear without them. Table 6.5 summarises which Emoji were substituted for the five types of script and other pre-installed symbols.

Table 6.5 Incorporation frequency of Emoji for replacement

*Docomo*

!?	1657	📱	59	?	31	④	13	📺	5	TEV	3	📞	2	🏠	2	👉	1	🔒	1
OK	139	👍	54	🚗	30	💕	13	📺	5	👉	3	👉	2	👉	2	👉	1	👉	1
2	137	📱	47	📶	27	⑥	11	📺	4	222	3	👉	2	🚗	1	👉	1	NG	1
✉	127	👉	47	🏠	27	📞	9	📺	4	📺	3	👉	2	👉	1	👉	1	👉	1
1	95	📱	44	⑨	23	📺	8	📺	4	📺	3	👉	2	👉	1	👉	1	👉	1
🏠	90	⑤	43	⑧	20	📺	6	📺	3	👉	2	👉	2	👉	1	👉	1	👉	1
👉	86	③	32	①	20	👉	6	📺	3	👉	2	👉	2	👉	1	👉	1	👉	1

<sup>43</sup> One thing to note about the occurrences of emoticons in each mobile carrier is that even though the largest group of participants used a Docomo mobile (28 participants, whereas 11 participants used a SoftBank mobile and 21 participants used an au mobile), the largest group of Emoji occurrences is from au. One possible reason for this imbalance is the great difference in the numbers of Emoji each carrier provides (Docomo:252, SoftBank:480, au:641). Those Emoji that do not have interchangeability between carriers are converted as words, and the small number of Emoji provided by Docomo and SoftBank would handle Emoji sent by au, whereas the opposite case will occur less frequently. In addition, an imbalance in the demographic for each carrier (Docomo: Male=15, Female=13; SoftBank 11: Male=7, Female=4; and au: Male=8 Female=13) might affect this, since females will add Emoji more often than males do (details discussed in Chapter 8).

*au*

?	2374	📧	28	🇺🇸	6	👉	4	🍀	3	📺	2	🍹	1	🔥	1	📰	1	🍆	1
!?	686	1	23	🏠	5	👯	4	0	3	🔑	2	🍸	1	🍓	1	😊 <sup>III</sup>	1	👉	1
?	101	📧	23	📖	5	☀️	3	📺	3	🏠	2	📷	1	🐱	1	😊 <sup>IV</sup>	1	🇪🇺	1
🏠	96	2	15	🍴	5	🐱	3	👠	3	🐱	2	✂️	1	🐕	1	📷	1	🌿	1
📧	87	📧	13	🌐	5	🔥	3	🚫	3	📷	2	🏠	1	🐱	1	👉	1	📞	1
📱	64	📞	11	👤	5	✈️	3	👉	3	📷	2	🌈	1	😊 <sup>II</sup>	1	🌈	1	👉	1
📱	59	OK	11	🏠	4	3	3	🐼	3	📷	2	📺	1	👉	1	📷	1	👉	1
📱	50	👉	7	📧	4	5	3	📷	2	😊 <sup>I</sup>	2	📱	1	👉	1	📷	1	👉	1
📱	47	📞	6	📞	4	7	3	8	2	📞	2	📷	1	👉	1	🍎	1	📷	1
📱	43	📷	6	📞	4	9	3	👉	2	👉	2	📱	1	👉	1	🍊	1	👉	1
📱	35	📞	6	😊	4	👉	3												

Note. I. Face in failure; II. Happy face; III. Face with heart-shaped-eyes; IV. Embarrassing

*SoftBank*

?	370	🏠	7	📱	3	☔	2	6	2	📷	1	😊	1	📷	1	0	1	👉	1
?	208	📞	5	📱	3	👤	2	👄	1	🔑	1	🇪🇺	1	1	1	1	1	👉	1
📧	31	📧	4	🍴	2	📺	2	📷	1	🍸	1	💰	1	7	1	📷	1	📷	1
📱	9	📞	3	🍹	2	2	2	👉	1	📷	1	📷	1	8	1	📷	1	👉	1

Table 6.5 shows the types of script that tend to be replaced. The first group is question marks (e.g., ? or !?). The second is Arabic numerals: however, this does not mean Emoji for all ten Arabic numerals are used at a similar rate, as the frequency and occurrences are context-dependent. The third is Emoji that are similar in appearance to long vowel symbols: ゃ and ゅ. The fourth is an OK symbol: OK, 📞 and OK. Non-complex symbols are mainly replaced by emoticons; this is a major method used to embellish Keitai-mail in a simple way.

Other groups of Emoji are replacements made on the basis of their intended meanings. One major group of this type is Emoji relating to Keitai and Keitai-mail communication, such as 📧 and 📞. Communication via Keitai (as a telephone) and Keitai-mail is very common and so people use these emoticons as replacements for words which use several moji (e.g., メール [mail] consists of three moji); this is natural in order to increase the effectiveness of input for such a frequent part of communication.

Emoji indicating transportation (e.g., 🚗 or 🚆) and accommodations (e.g., 🏠 and 🏢) are also used frequently in Keitai-mail. Keitai-mail used as a daily communication device increase the use of these Emoji since they commonly include topics such as commuting and major places of activity.

In both cases, Emoji are effectively used in the input method and for purposes of decoration in Keitai-mail, and the proportion of approximately 8% of Keitai-mail which feature Emoji as

replacements shows the effectiveness of Emoji application.

Regarding the functions of Emoji used as replacements in terms of Fairclough's criterion of style, some incorporate a 'body-language' aspect (e.g., Arabic numerals which can be expressed by fingers in face-to-face communication), and others have 'phonological features' (e.g., Emoji seeming like long vowel symbols). As Kimura (2002) suggests, Emoji are recognised mainly as pictures and not as alternatives for words written in script, and this corresponds with these styles. At the same time, however, currently it seems people now use Emoji more actively than in the past as a replacement for words, as shown above. This may be explained by 1) technical growth of extension of Emoji installed in each Keitai, or 2) increasing experiences of Keitai-mail practices which allow people to use and interpret a wider range of Emoji more accurately than in the past.

In any case, this indicates that Emoji play an important role in providing extra-textual meaning which increases effectiveness of communication and mutual intelligibility. These aspects are further discussed in later chapters.

## 6.2 Kanji replaced by Hiragana

This section introduces details of how young informants choose to use Hiragana in place of Kanji in Keitai-mail, showing the number of words in the data corpus where Hiragana are used where Kanji would normally be expected based on the guideline of Kanji use in formal writing from Bunkachō (2010b).

17,801 words are converted to Hiragana from 749 Kanji (several Kanji are converted into Hiragana with different pronunciations based on their usage and combinations with other Kanji). However, Table 6.6 shows that Kanji are not always replaced with yomigana, or pronunciation-based Hiragana; some language plays (LP) are applied when people use Hiragana as an alternative to Kanji. Several LP patterns were found in the collected Keitai-data, as shown in Table 6.6.

Table 6.6 Frequency of Kanji written in Hiragana and language play

Pattern	Frequency	Example: 了解
Just as yomigana	16,388	りよ <u>う</u> か <u>い</u>
Small moji	136	りよ <u>う</u> か <u>い</u>
Long vowel symbols	237	りよ <u>ー</u> か <u>い</u>
Replacement in syllables	337	りよ <u>っ</u> か <u>い</u>
Omission of components	490	りよ <u>  </u> か <u>い</u>
Additional components	109	りよ <u>う</u> か <u>〜</u> い
Capitalisations	6	り <u>よ</u> うか <u>い</u>
Combination/other patterns	98	りよ <u>ー</u> か <u>ー</u> い
Total	17,801	

*Note.* The underlined parts are the places where language plays are applied.

Firstly, some large Hiragana moji are replaced by small Hiragana moji. The example in Table 6.6 shows that 了解 is normally written as りょうかい in yomigana. Some people, however, write it as りょうかい in Keitai-mail, where this version of りょうかい contains two small Hiragana, う and い(りょううかい). The table shows that this kind of replacement occurs in 136 cases. In 237 cases, long-vowel symbols are used in place of a vowel. In this example, う is replaced by the long vowel symbol ‘ー’. In another 337 cases, the long vowel is replaced with another syllable: in りよつかい, う is replaced by つ, which is not allowed under orthography rules. Addition and omission of some syllables/components are also seen. りよかい omits the う which should be in the middle, and りょうか〜い adds an extra long vowel symbol ‘〜’ in the middle. A small number of conversions apply capitalisation of some parts of yomigana writing: りょうかい has a capital よ instead of a small よ. Other than these patterns, 98 cases contain more than two LP in Hiragana formation. The details of each pattern are discussed later in this section.

Table 6.6 also shows that the application of LP is less than 8% in total, so LP are not a major factor in people’s use of Hiragana instead of Kanji. At the same time, however, we also see the phenomenon that LP do, even if only slightly, influence the Hiragana used in place of Kanji.

Table 6.7 shows the top 50 words in which Hiragana have been used instead of Kanji.<sup>44</sup> In this table, the same word with different pronunciations is treated separately since a difference in pronunciation can differentiate the meaning of Kanji in many places (even though only slightly).

Table 6.7 also shows the numbers of Hiragana patterns. The table includes information on how many times each Kanji is converted into Hiragana, and gives a ranking based on that. For example, 了解 (which is shown as the example in Table 6.7) ranks 23rd with 211 conversions.

In addition, how many LP categories are used is also illustrated. For instance, 182 examples of 了解 apply some kind of LP, and they encompass 5 categories of LP out of the 7 shown in table 6.6.<sup>45</sup> The 182 patterns make this rank 2, the second largest group of Hiragana usage with LP (Table 6.7 shows 本当 is the 1st (320 patterns) and 了解 is the 2nd (182 patterns)).

<sup>44</sup> The sum of the top 30 is 12,148, 68% in total, and the sum of the top 50 is 13,852, 78% in total. Therefore, this table includes larger data in order to picture the whole more clearly.

<sup>45</sup> The small syllable pattern of りょうかい and the capitalization pattern of りょうかい were not found in the collected data.

Table 6.7 Top 50 frequent Hiragana conversions from Kanji

Kanji	Yomigana	Meaning	F	Rank	N of LP	Rank in LP use	N of LP categories
分	Wa	Understand	1,569	1	7	26	1
行	I	Go	985	2	14	10	1
後	A to	After	927	3	18	14	1
君	Ku n	Mr.	777	4	2	52	1
様	Sa ma	Sir	570	5	0	137	0
皆	Mi na	Everyone	559	6	2	52	1
私	Wa ta shi	I	546	7	0	137	0
何	Na n	How many	536	8	4	37	1
過	Su	Over	438	9	0	137	0
頑張	Gan ba	Cheer	432	10	20	13	2
凄	Su go	Great	414	11	48	5	3
今	I ma	Now	366	12	13	19	1
本当	Ho n to u	Really	325	13	320	1	3
着	Tsu	Arrive	314	14	0	137	0
来	Ku	Come	287	15	0	137	0
言	I	Say	282	16	150	3	2
出	De	Out	276	17	0	137	0
疲	Tsu ka re	Tiredness	255	18	7	26	2
俺	O re	I	235	19	12	20	1
欲	Ho	Want	229	20	0	137	0
所	To ko ro	Place	219	21	140	4	1
色々	I ro i ro	Various	214	22	5	33	2
了解	Ryo u ka i	OK	211	23	182	2	5
見	Mi	Watch	209	24	0	137	0
取	To	Take	182	25	0	137	0
何	Na ni	What	180	26	11	21	3
来	Ki	Come	168	27	0	137	0
可愛	Ka wa i	Cute	156	28	33	7	4
空	A	Empty	148	29	0	137	0
婆	Ba a	Grandma	139	30	21	12	2
来	Ku	Come	137	31	0	137	0
方	Ho u	To	136	32	22	11	4
帰	Ka e	Come back	127	33	1	65	1
飯	Ha n	Rice/Meal	104	34	0	137	0
会	A	Meet	95	35	2	52	1

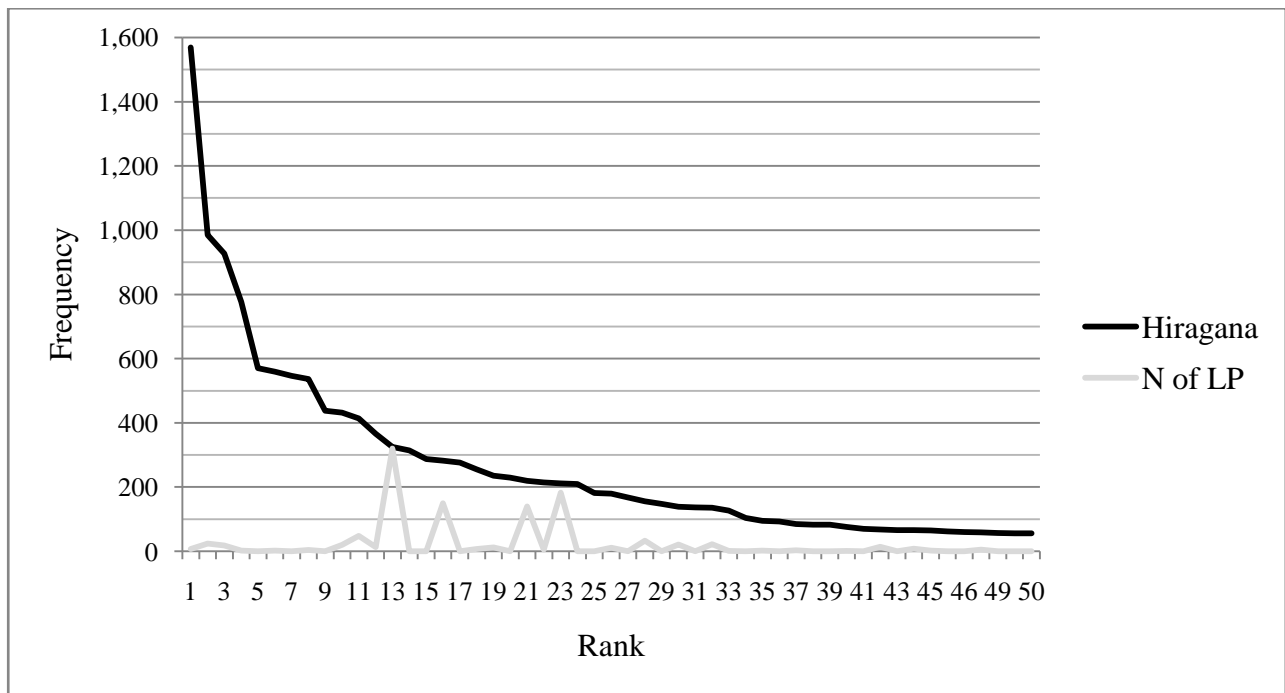
*Abbreviations.* F: Frequency, N: Number, LP: Language plays

Table 6.7 (Continued)

Kanji	Yomigana	Meaning	<i>n</i>	Rank	N of LP	Rank in LP use	N of LP categories
頃	Go ro	About	93	36	0	137	0
美味	O i	Delicious	85	37	3	41	1
待	Ma	Wait	83	38	0	137	0
持	Mo	Have	83	39	0	137	0
確	Ta shi	Sure	76	40	1	65	1
食	Ta	Eat	70	41	0	137	0
物	Mo no	Things	68	42	14	17	1
辺	A ta	Surroundings	66	43	8	25	3
早	Ha ya	Quick	66	44	0	137	0
色	I ro	Colour	65	45	2	52	1
思	O mo	Think	62	46	0	137	0
聞	Ki	Listen	60	46	0	137	0
遅	O so	Slow	59	48	5	33	2
始	Ha ji	Start	57	49	0	137	0
変	Ka	Change	56	50	0	137	0
達	Ta chi	(Plural marker)	56	50	0	137	0

\*Note: '0' in N of LP refers to the cases where no LP was applied but simply the standard orthography in hiragana was used.

In general, commonly used words appear on the table with high frequency, and because of this commonality, these Kanji are naturally converted into Hiragana. As for the relation between conversion to Hiragana and application of LP, Figure 6.5 illustrates the number of Hiragana conversions and LP separately in the same graph. Figure 6.5 suggests that there is no obvious interconnected relationship between the two. In other words, large numbers of Hiragana conversions do not lead to large numbers of application of LP.



Abbreviation. N of LP: Number of language plays

Figure 6.5 The relationship between conversion to Hiragana and application of language plays

#### Use of small moji

There are 136 examples of small moji use in the Hiragana versions of 44 words which are generally written in Kanji. Table 6.8 shows the top 10 words which contain small moji as a replacement for large moji. For example, 行 is written using a small vowel い instead of い.

Fourteen examples of 行 are written this way of the total of 24 patterns of Hiragana usage for 行 found in the collected Keitai-mail data. Therefore, い accounts for 58.33% of the pattern of LP applications.

Table 6.8 Top 10 Hiragana conversions using small moji applications

Kanji	Patterns	Romaji	Frequency	Proportion in total LP	Total LP
後	あと	A to	18	100.00%	18
行	い	I	14	58.33%	24
今	いま	I ma	13	100.00%	13
俺	おれ	O re	12	100.00%	12
婆	ばあ	Ba a	8	38.10%	21
分	わ	Wa	7	100.00%	7
早	はや	Ha ya	6	75.00%	8
方	ほう	Ho u	5	22.73%	22
遅	おそ	O so	4	80.00%	5
大分	だ <b>い</b> ぶ	Da i bu	4	100.00%	4

Abbreviation. LP: Language plays



Small moji uses are restricted by the syllables used for yomigana. If yomigana contain syllables which usually cannot be written in small moji, this pattern naturally does not occur. This means that if yomigana contain あ, い, う, え, お, つ, や, ゆ, よ, わ, this pattern is possible. The words shown in Table 6.8 only show a single pattern of small moji use, but one word elsewhere in the corpus, 可愛, exhibits two patterns of small moji use (かわい and かわい).

### Long vowel symbols

30 words are written in Hiragana with the replacement of some vowels by long vowel symbols in 237 cases, something not normally done in written Japanese. Table 6.9 illustrates the words with two or more occurrences of this type of LP. Table 6.9 suggests that う/u/ is the main moji replaced by long vowel symbols.

Table 6.9 Top 9 Hiragana conversions with replacement of long vowel symbols

Kanji	Patterns	Romaji	Frequency	Proportion in total LP	Total LP
了解	りよーかい	Ryo <u>u</u> ka i	135	74.18%	182
超	ちよ～ ちよー	Cho <u>u</u>	23	92.00%	25
大丈夫	だいじょーぶ	Da i jo <u>u</u> bu	20	51.28%	39
婆	ばー	Ba <u>a</u>	13	61.90%	21
姉	ねー	Ne <u>e</u>	10	90.91%	11
兄	にー	Ni <u>i</u>	6	100.00%	6
即効	そっこー	So kko <u>u</u>	6	100.00%	6
普通	ふつー	Hu tsu <u>u</u>	3	100.00%	3
適当	てきと～	Te ki to <u>u</u>	2	50.00%	2

*Note.* Rank 10 and upwards have only one pattern and are therefore omitted from the table.

*Abbreviation.* LP: Language plays

### Use of syllables other than orthography

337 examples which contain Hiragana conversion with syllable replacement were found for 37 words. Table 6.10 shows the top 10 most frequent words using this form of LP. This pattern, in theory, has unlimited application. For example, 頑張 has three types of application patterns: がんば is a replacement of the dakuon (syllable with ‘ ’’) with handakuon (syllables with ‘ ’’); がむば makes a replacement within the word itself, ん to む; かんば involves replacement of the first syllable, instead of the second syllable like the other two. However, this replacement seems basically to be a phonological contraction, and not too far outside the general rules of Japanese language.

Table 6.10 Top 10 Hiragana conversions including replacement of syllable

Kanji	Pattern	Romaji	F	Proportion in total LP	Total LP
言	ゆ(い)	<u>Yu</u> (i)	149	99.33%	150
暖	あつ(た)た	A <u>xtus</u> <sup>46</sup> (ta) ta	32	100.00%	32
凄	すげ(ご)	Su <u>ge</u> (go)	24	50.00%	48
頑張	がんば(ば)	Ga n <u>pa</u> (ba)	19	95.00%	20
	がむ(ん)ば	Ga <u>mu</u> (n) ba			
	か(が)んば	<u>Ka</u> (Ga) n ba			
方	ほお(う)	Ho <u>xo</u> (u)	14	63.64%	22
物	もん(の)	Mo <u>n</u> (no)	14	100.00%	14
了解	りよつ(う)かい	Ryo <u>xtsu</u> (u) ka i	11	6.04%	182
	りよ $\epsilon$ (う)かい	Ryo $\epsilon$ (u) ka i			
悪	わり(る)	Wa <u>ri</u> (ru)	10	90.91%	11
	や(わる)	<u>Ya</u> (Wa) ru			
結構	けっこお(う)	Ke kko <u>o</u> (u)	6	66.67%	9
可愛	かわえ(い)	Ka wa <u>e</u> (i)	6	18.18%	33
	かわゆ(い)	Ka way <u>u</u> (i)			
下	くら(だ)	Ku <u>ra</u> (da)	6	85.71%	7
疲	ち(つ)か	<u>Chi</u> (Tsu) ka	6	85.71%	7

*Note.* The underlining shows the replacement and the syllable in parenthesis following is the orthography.

*Abbreviations.* F: Frequency, LP: Language plays

\* $\epsilon$  indicates the use of emoticons

### Omission of elements

There are 490 examples omitting an element in yomigana writing, and this category accounts for the largest numbers of LP. However, only 12 words exhibit this pattern, indicating that this pattern can include certain LP application patterns which frequently occur in this particular category.

Table 6.11 shows the full set of words which exhibit this LP pattern. 本当 and 所 account for a large proportion (89%). These two are ranked in the top 2 places in terms of the number of LP applications in a word. Other than these two, the numbers are small. In this case too, ゝ/u/ is replaced in many words, and in addition to long vowel symbol use, ゝ/u/ can be easily changed or omitted in this type of communication.

<sup>46</sup> When expressing a single moji conversion to small moji, this chapter describes it with ‘x’ before a target Romaji in considering the rule of typing by keyboard. For example, い (small い) is described as ‘xi’.

Table 6.11 Hiragana conversion with omissions

Kanji	Pattern	Romaji	F	Proportion in total LP	Total LP
本当	ほんとう	Ho n to (u)	297	92.81%	320
所	ところ	To ko (ro)	140	100.00%	140
嫌	(い)や	(I) ya	15	93.75%	16
了	りょう	Ryo (u)	10	66.67%	15
大丈夫	だいじょうぶ	Da i jo (u) bu	8	20.51%	39
了解	りょうかい	Ryo (u) ka i	6	3.30%	182
先生	せんせい	Se n se (i)	6	100.00%	6
方	ほう	Ho (u)	2	9.09%	22
一応	いちおう	I chi o (u)	2	14.29%	14
中	ちゅう	Chu (u)	1	50.00%	2
勉強	べんきょう	Be n kyo (u)	1	100.00%	1
放	ほう	Ho (u)	1	100.00%	1

*Note.* The moji in parentheses indicate the moji omitted.

*Abbreviations.* F: Frequency, LP: Language plays

#### Additions in conversion

109 examples for 40 words are categorised in this group. Table 6.12 shows the top 10 words in which extra syllables/symbols not normally occurring in standard written Japanese were added in Hiragana conversion. The table shows several patterns of addition: extra long vowel symbols (な〜に), extra ‘っ’(すっご), extra ‘ん’(なんに), extra small vowel following on from the preceding syllable (なぁに), and other patterns (りょうのかい). Ultimately, anything can be added to form this pattern; however, added components should not have the ability to change the meaning of the original word, and basically only a small number of extra words are added in the process of conversion to Hiragana.

Table 6.12 Top 10 words of Hiragana conversion with additional parts

Kanji	Pattern	Romaji	F	Proportion in total LP	Total LP
凄	す <u>っ</u> ご	Su <u>xtsu</u> go	21	43.75%	48
	す <u>っっ</u> ご	Su <u>xtsu xtsu</u> go			
	す <u>ん</u> ご	Su <u>n</u> go			
了解	りょうか <u>〜</u> い	Ryo u ka <u>〜</u> i	16	8.79%	182
	りょうか <u>ぁ</u> い	Ryo u ka <u>ぁ</u> i			
	りょう <u>の</u> かい	Ryo u <u>no</u> ka i			
	りょう <u>〜</u> うかい	Ryo <u>〜</u> u ka i			

Table 6.12 (Continued)

Kanji	Pattern	Romaji	F	Proportion in total LP	Total LP
何	な <u>あ</u> に	Na xa ni	7	63.64%	11
	な <u>一</u> んに	Na <u>一</u> n ni			
	な <u>〜</u> に	Na <u>〜</u> ni			
	な <u>ん</u> に	Na <u>n</u> ni			
大	だ <u>一</u> い	Da <u>一</u> i	7	100.00%	7
全然	ぜ <u>ε</u> んぜん	Zegn ze n	6	100.00%	6
	ぜん <u>つ</u> ぜん	Ze n <u>xtsu</u> ze n			
	ぜ <u>〜</u> んぜん	Ze <u>〜</u> n ze n			
	ぜ <u>え</u> 〜んぜん	Ze <u>xe</u> <u>〜</u> n ze n			
鬱	う <u>つ</u> つ	U <u>xtsu</u> tsu	5	100.00%	5
何	な <u>一</u> ん	Na <u>一</u> n	4	100.00%	4
	な <u>〜</u> ん	Na <u>〜</u> n			
熱	あ <u>つ</u> つ	A <u>xtsu</u> tsu	4	100.00%	4
素晴	す <u>つ</u> ば	Su <u>xtus</u> ba	3	100.00%	3
	す <u>ん</u> ば	Su <u>n</u> ba			
絶対	ぜ <u>≡</u> ったい	Ze <u>≡</u> ttai	3	100.00%	3
	ぜ <u>つ</u> ったい	Ze <u>xtus</u> ttai			
	ぜ <u>〜</u> ったい	Ze <u>〜</u> ttai			

Abbreviations. F: Frequency, LP: Language plays

### Capitalisation

In a few cases, several Hiragana are written in big moji instead of small moji. Table 6.13 shows four words which exhibit this pattern. Only four small Hiragana つ, や, ゆ, よ are used in normal Japanese orthography and therefore this category too only appears infrequently compared to other patterns.

Table 6.13 Words involving Hiragana conversion with capitalisation

Kanji	Pattern	Romaji	<i>n</i>	Proportion in total LP	Total LP
誕生日	たんじ <u>よ</u> うび	Ta n ji <u>yo</u> u bi	2	66.67%	3
勝手	か <u>つ</u> て	Ka <u>tsu</u> te	1	25.00%	4
執念	し <u>ゆ</u> うねん	Shi <u>yu</u> u ne n	1	100.00%	1
盤石	ばんじ <u>や</u> く	Ba n ji <u>ya</u> ku	1	100.00%	1

### Combination of several LP in Hiragana conversion

99 examples for 17 words apply two or more patterns of LP. Several such combination patterns are shown in the collected Keitai-mail data:

- Long vowel symbol use and additional parts: りよ一か一い←りょうかい
- Small moji and long vowel symbol use: だいじよ一ぶ←だいじょうぶ

- Capitalisation and omission: りよ かい ← りょうかい

In addition, a few examples reverse the sequence of yomigana syllables, such as し〜め, which is a Hiragana conversion of 飯, read めし/me shi/: the syllables め and し are reversed (and a long vowel symbol is added in the middle). Table 6.14 illustrates all cases found in the data. In theory, a vast number of patterns is possible if users apply many LP all at once (detailed discussion of this is given in Sections 6.4.1 and 6.4.2), but the data corpus does not include any such extreme cases: basically, the application of LP is limited.

Table 6.14 Hiragana conversion with combinations of language plays

Kanji	Pattern	Orthography	F	Proportion in total LP	Total LP				
可愛	かあ〜わい (Ka xa ~ wa i)	かわい (Ka wa i)	23	69.70%	33				
	かわゆ (Ka xwa xyu)								
	かわゆ (Ka wa xyu)								
	きゃわい (Kya wa i)								
	きゃわゆ (Kya wa xyu)								
	かーわーい (Ka - wa - i)								
	かあわい (Ka xa wa i)								
	ほーんと (Ho - n to -)					ほんとう (Ho n to u)	21	6.56%	320
	ほんつと (Ho n xtu to -)								
	りよーかーい (Ryo - ka - i)								
了解	りよ かい (Ri yo - ka i)	りょうかい (Ryo u ka i)	14	7.69%	182				
	りよーかい (Ryo - ka xi)								
	りよ〜かーい (Ryo ~ ka - i)								
	りよ〜かあ〜い (Ryo ~ ka xa ~ i)								
	りよ かい (Ryo - ka ~ i)								
	りよーかい (Ryo - ka - i)								
	りよーかい (Ryo - ka - i)								

Abbreviations. F: Frequency, LP: Language plays

Table 6.14 (Continued)

Kanji	Pattern	Orthography	F	Proportion in total LP	Total LP
大丈夫	だいじょ <u>ぶ</u> (Da <u>xi</u> jo <u>bu</u> )	だいじょうぶ (Da i jo u bu)	9	23.08%	39
	だいじょ <u>ぶ</u> (Da i jo <u>bu</u> )				
	だい <u>ぢ</u> ょ <u>ぶ</u> (Da <u>xi di</u> xyo <u>bu</u> )				
一応	いち <u>お</u> (I chi <u>xo</u> )	いちおう (I chi o u)	8	57.14%	14
	いち <u>よ</u> (I chi <u>yo</u> )				
	いち <u>を</u> (I chi <u>wo</u> )				
凄	す <u>つ</u> げ (Su <u>xtu</u> ge)	す <u>ご</u> (Su go)	3	6.25%	48
何	ぬ <u>あ</u> に (Nu <u>xa</u> ni)	なに (Na ni)	3	27.27%	11
	な <u>あ</u> に (Na <u>xa</u> ni)				
	な <u>あ</u> んに (Na <u>xa n</u> ni)				
飯	し <u>め</u> (Shi <u>me</u> )	めし (Me shi)	3	100.00%	3
	し <u>め</u> (Shi <u>me</u> )				
	し <u>め</u> (Shi <u>me</u> )				
超	ち <u>ょう</u> (Cho <u>u</u> )	ち <u>ょう</u> (Cho u)	2	8.00%	25
	ち <u>ょう</u> (Cho <u>u</u> )				
	ち <u>ょう</u> (Cho <u>u</u> )				
了	り <u>ょう</u> (Ri <u>yo</u> )	り <u>ょう</u> (Ryo u)	2	13.33%	15
	り <u>ょう</u> (Ryo <u>ryo</u> )				
	り <u>ょう</u> (Ryo <u>ryo</u> )				
結構	け <u>つ</u> こ <u>お</u> (Ke <u>xtu</u> ko <u>xo</u> )	け <u>つ</u> こ <u>う</u> (Ke <u>xtu</u> ko u)	2	22.22%	9
色々	い <u>ろ</u> ( <u>xi</u> ro)	い <u>ろ</u> い <u>ろ</u> (I ro i ro)	2	40.00%	5
	い <u>ろ</u> ( <u>xi</u> ro)				
暇	ま <u>ひ</u> (Ma <u>hi</u> )	ひ <u>ま</u> (Hi ma)	2	100.00%	2
	ま <u>ひ</u> (Ma <u>hi</u> )				
	ま <u>ひ</u> (Ma <u>hi</u> )				
頑張	ぎ <u>ん</u> ば (Gya <u>n</u> ba)	が <u>ん</u> ば (Ga <u>n</u> ba)	1	5.00%	20
用	よ <u>う</u> (Yo <u>xo</u> )	よ <u>う</u> (Yo u)	1	100.00%	1

Table 6.14 (Continued)

Kanji	Pattern	Orthography	F	Proportion in total LP	Total LP
騒	さがわ (Sa ga wa)	さわが (Sa wa ga)	1	100.00%	1
賛成	さんせーい (Sa n se ー xi)	さんせい (Sa n se i)	1	100.00%	1
学会	かつかい (Ka tsu ka i)	がつかい (Ga xtsu ka i)	1	100.00%	1

### Variety of LP application

There are six basic LP patterns and many patterns of combination. The actual data suggest that each Kanji is converted to Hiragana using one main pattern of LP. Table 6.15 shows the average proportion of use for each LP. This suggests that for each Kanji only one type of LP tends to be applied, which is why the average proportions are relatively high.

Table 6.15 The average proportion of occurrence of each language play for the top 10 words

Small moji	Long vowel symbol	Replacement	Omission	Addition	Capitalisation
77.42%	80.03%	71.77%	62.54%	81.62%	72.92%

For example, Table 6.16 shows the case of 了解. Here, the conversion exhibits four different LP and combinations of LP, and almost 75% (3/4) of the patterns involve long vowel symbol use. As this example shows, for each Kanji there is a preferred application of LP when converting to Hiragana.

Table 6.16 The proportion of language play patterns applied to 了解

Long vowel symbol	Replacement	Omission	Addition	Combination
74.18%	6.04%	3.30%	8.79%	7.69%

### 6.3 Kanji replaced by Katakana

In some cases, Kanji which are replaced by Katakana are found in the corpus, and this section discusses this phenomenon in sequence with the previous section. In total, 949 words involving 133 Kanji were converted to Katakana. When compared with Hiragana conversions of Kanji (17,801 words, 749 Kanji), Katakana conversions are much less frequent (5.3%). In terms of the number of how many Kanji are converted, the proportion is smaller than the number of occurrences: the proportion between the number of Kanji converted to Hiragana and those converted to Katakana is approximately 18% (133/749), so that cases where Kanji are converted into Katakana only are quite rare.

Tables 6.17 and 6.18 show Katakana replacements for Kanji. The first illustrates the top 20

Kanji replaced by Katakana; it includes the original Kanji, its yomigana reading, and replacement patterns found in the corpus based on the application of LP as discussed in the section on Hiragana conversions. The second introduces some other Kanji which are not shown in Table 6.17 where two or more LP patterns have been applied in the conversion.

A striking feature of this table is the 241 occurrences of 本当 /ho n to u/, which ranked in the first place. Instead of the usual yomigana ホントウ, a shortened version, ホント, appears 241 times, which means that in 100% of 本当 conversions to Katakana, reduction LP has been applied. Reducing the yomigana /u/ is also seen in Hiragana conversion (omitting う, 297 in 325 replacements), and this is a strong tendency related to the word 本当.

Other than this pattern, the LP applications are quite limited. Only 92 other LP patterns are found for 24 Kanji (therefore, only 25 of the 133 Kanji apply LP in Katakana conversions). Glancing at the proportion of LP use in Katakana conversion, we find approximately 35% (333 in 949) of conversions which utilise some kind of LP. However, the ホント pattern accounts for 72% (241/333) of replacement with LP and the proportion of application of LP to other Kanji is less than 13 % (i.e., 92/708), just slightly higher than the proportion for Kanji-Hiragana conversion (where it accounted for less than 8%). Therefore, as with Hiragana, LP do not stimulate a preference for replacing Kanji with Katakana.

One particular LP aspect found only in Kanji-Katakana conversion is the addition of a dot (‘・’) between yomigana symbols: ヒ・ミ・ツ /hi mi tsu/ and シ・ゴ・ト/shi go to/. The use of extra dots gives a different rhythm to the word, but there are only two cases where this pattern is used.

To consider the conversions from a technical perspective, Katakana conversion requires extra effort. The Keitai input system first displays Hiragana and then converts it to Kanji or Katakana. Current Japanese mobile phones come with an installed conversion prediction system which enables efficient input of Kanji based on information from the dictionary as to how each combination of Hiragana will be converted, as well as on the history of how users have converted it before. However, Katakana conversion is not well catered for in the dictionary in terms of the prediction system. This means that users need to fully input words to convert Katakana, or they need to change the input mode to a ‘Katakana input’ mode. Therefore, Katakana conversion itself is demanding for the user and will be chosen only when a particular intention is involved.



Table 6.17 Top 20 Kanji replaced by Katakana

Rank	Kanji	Yomigana	Half size	Long vowel symbols	Other replacements	Omission	Addition	Combination
1	本当	241	ホントウ			ホント__	241	
2	俺	75	オレ	75				
3	暇	45	ヒマ	45				
4	無理	44	ムリ	44				
5	馬鹿	38	バカ	38				
6	勸	34	スス	34				
6	素敵	34	ステキ	34				
7	凄	28	スゴ	19	ス <u>ゲ</u>	4	ス <u>ッ</u> ゴ	5
8	頑張	26	ガンバ	26				
9	位	25	グライ	25				
10	君	22	クン	22				
11	可愛	20	カワイ	18	カワ <u>ユ</u>	1		キ <u>ャ</u> ワイ 1
12	適当	16	テキトウ		テキト <u>二</u>	16		
13	子	14	コ	14				
13	皆	14	ミンナ	14				
13	私	14	ワタシ	14				
16	嫌	13	イヤ	13				
17	了解	11	リョウカイ		リョ <u>二</u> カイ 8	リョ <u>ッ</u> カイ 2		リョ <u>二</u> カ <u>イ</u> 1
18	彼	9	カレ	9				
19	様	9	サマ	9				
20	鍵	8	カギ	8				
20	緊張	8	キンチョウ		キン <u>チ</u> ョ <u>二</u> 8			
20	所	8	トコロ	2		トコ	6	

Table 6.18 Kanji where language plays are applied in Katakana conversion, under rank 20

Rank	Kanji	Yomigana	Half size	Long vowel symbols	Other replacements	Omission	Addition	Combination
24	即行	7	ソッコウ		ソッコ <sub>ー</sub>	7		
25	最高	6	サイコウ		サイコ <sub>ー</sub>	4		サイコ <sub>ー</sub> ウ 2
34	今	4	イマ	3	イマ	1		
34	超	4	チョウ		チョ <sub>二</sub>	3		チョ <sub>二</sub> 1
34	普通	4	フツウ		フツ <sub>二</sub>	4		
41	疲	3	ツカ	2			チカ	1
47	中	2	チュウ	1	チュ <sub>二</sub>	1		
47	秘密	2	ヒミツ	1			ヒ <sub>二</sub> ミ <sub>二</sub> ツ	1
47	微妙	2	ビミョウ		ビミョ <sub>二</sub>	2		
47	貧乏	2	ビンボウ		ビンボ <sub>二</sub>	2		
47	勉強	2	ベンキョウ		ベンキョ <sub>二</sub>	1	ベンキョ <sub>二</sub>	1
67	残念	1	ザンネン				ザ <sub>二</sub> ンネン	1
67	仕事	1	シゴト				シ <sub>二</sub> ゴ <sub>二</sub> ト	1
67	絶対	1	ゼツタイ				ゼ <sub>二</sub> エツタイ	1
67	相談	1	ソウダン		ソ <sub>二</sub> ダン	1		
67	小	1	チイ				チ <sub>二</sub>	1
67	提供	1	テイキョウ				テ <sub>二</sub> キョウ	1
67	方向	1	ハウコウ		ホ <sub>二</sub> コ <sub>二</sub>	1		

### *Conversion and technical demands*

The ‘extra demand’ factor which limits Katakana conversion seems to hold true for Kanji-based conversion as a whole. Table 6.19 summarises how many Kanji-Hiragana/Katakana conversions appeared in the data corpus. Although LP application in Kanji-Hiragana/Katakana conversions is restricted by yomigana as discussed in the Kanji-Hiragana conversion section, and misinterpretation of the original meaning as a result of LP is avoided, the table shows that compared to Hiragana in yomigana conversion the number of conversions by other methods appears quite small, and the large differences here indicate the influence of the technology, in addition to the Hiragana-Katakana differences discussed in the previous section.

Table 6.19 The number of Hiragana/Katakana conversions from Kanji

Pattern	Hiragana	Katakana
Just as yomigana	16,388	616
Replacement with half-size symbols	136	2
Long vowel symbols	237	59
Other replacement	337	11
Omission of components	490	248
Additional components	109	8
Use of full-size symbols	6	0
Combination/other patterns	98	5
Total	17,801	949

Table 6.19 also shows the tendency of input demand influences. Even though the use of LP is an intentional act which adds extra information, participants also choose a not-too-complicated technique to achieve it. Of the six LP patterns, omission is the most frequent. Since omission can decrease the effort involved in input, users tend to favour this as long as the words with omissions still make sense (e.g., 本当 /hon to u/ vs /hon to/; 所 /to ko ro/ vs /to ko/), and this pattern is sometimes preferred to giving the full yomigana orthography.

Moreover, of the three replacement techniques of half-size symbols, long vowel symbols, and replacements with other symbols, small-moji replacement is applied least. This can be attributed also to the input specification that even though these replacement patterns do not change the total number of symbols in a word (i.e., it has the same number of symbols as in the normal yomigana version), replacement with half-size symbols requires the use of irregular half size-symbols, particularly half-size vowels, which are rarely used in writing Japanese words. This increases the number of key strokes involved in producing them and may not be so popular when applied to inputting Kanji where the prediction conversion system can ease the burden: basically, users can obtain the intended Kanji through minimum Hiragana input.

The difference between replacements with half-size symbols and with other symbols is that the latter entails unintentional factors, such as mistyping or pronunciation of dialect and contraction. For example, 言 /i/ is more often pronounced as /yu/ in the western part of Japan, or 暖 /a ta ta/ is frequently pronounced as /atta/ (e.g., あったかい /a tta kai/) in natural Japanese. To distinguish whether something has been mistyped or not is not easy but, for instance, when 頑張/ga n ba/ is written as かんば /ka n ba/ as shown in the previous section, this seems to be a simple case of mistaken input since かんば is not generally seen. Therefore, the relatively high frequency of this pattern does not run counter to the tendency of users to avoid too many input demands.

The increase in key strokes required for applications of additional moji uses and combination patterns may limit the use of these techniques to less than the LP applications shown earlier because these patterns increase the number of key strokes compared with the key stroke input for yomigana.

The case of full-size symbols used in place of half-size symbols, however, does not conform to this rule. In terms of key strokes, the number of key strokes required is the same as for yomigana input, or even fewer because users do not need to convert to half-size symbols. Therefore, it might be predicted that this pattern would occur much more frequently in the data corpus than it actually did. However, words with this pattern tend to strike the recipient as strange, which would not be regarded as an effective application of LP, and the avoidance of this pattern can therefore be attributed to readability issues.

To sum up, conversions from Kanji involve many factors: the frequency of the words themselves, yomigana and the restrictions it places on LP applications, relationship between the original words and their LP-applied patterns, naturalness as Japanese language itself, and technical reasons,<sup>47</sup> but the result seems to be influenced most by word frequency itself and by specification matters which unconsciously limit the users' creativity.

#### 6.4. The pattern of unique use of language in greeting messages

LP are (in most cases) intentional use of unusual expressions. In Japanese Keitai-mail, several types of LP are found, as Miyake (2007) suggests (see Section 3.3). LP are not solely interesting as a peculiar phenomenon; their role is not limited to matters of text. For example, Crystal (2008) introduces LP in poems composed by SMS, and mentions that the 160-word limit for SMS can be extended by the application of LP in terms of expressions. On the user side, Morand and Ocker (2002) propose that LP are a realisation of positive politeness. Therefore, although LP may be seen as a totally random phenomenon stemming solely from users' creativity, in fact people often receive

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<sup>47</sup> Of course, the choice of types of symbols and the use of LP are intentional acts which reflect aspects of the users' psychology, but I do not discuss this here since it goes beyond the structure of language which is the focus of this chapter.

Keitai-mail containing very similar patterns of LP. In this sense, to consider LP application a little further is worthwhile in terms of deepening our understanding of the nature of Keitai-mail.

Of the many types of discourse in Keitai-mail, this study analyses greeting messages as an example. Greeting is a short, simple, common practice in communication and people use phrases of greeting frequently in their Keitai-mail exchanges. Therefore, to allow an in-depth look at the pattern of LP applied to Keitai-mail, greeting messages are now analysed by way of example.

#### 6.4.1 The infinite number of possible expressions

Before discussing the expressions appearing in Keitai-mail, the potential number of language patterns which can be created by the combination of available moji is estimated, since this clarifies that LP applications are in fact based on some systematic mechanism rather than being just random occurrences. Firstly, a simple model which only uses Hiragana and Katakana is considered. おはよう (good morning) consists of only four moji. However, if each moji can be either Hiragana or Katakana, then the number of possible moji combinations is:  $2 \times 2 \times 2 \times 2 = 16 (2^4)$  (See Table 6.20).

Table 6.20 Possible scripts combination of おはよう by Hiragana and Katakana

HHHH	おはよう	HKHH	おハよう	KHHH	オはよう	KKHH	オハよう
HHHK	おはよウ	HKHK	おハよウ	KHHK	オはよウ	KKHK	オハよウ
HHKH	おはヨう	HKKH	おハヨう	KHKH	オはヨう	KKKH	オハヨう
HHKK	おはヨウ	HKKK	おハヨウ	KHKK	オはヨウ	KKKK	オハヨウ

*Note.* H: Hiragana, K: Katakana

Therefore, the longer a word is, the more the number of combinations exponentially increases. For example, if a phrase consists of 9 moji (such as おはようございます), possible combination patterns are calculated as  $2^9 = 512$ . Therefore, Keitai-mail, which provide syllables with which users can create Kaomoji, many Kanji, a rich platform of Emoji and extra Decome which can in theory be limitlessly increased, can allow infinite ways of expression based on the users' creativity.

Of course, phone specifications may impose limits, such as that each mail can use only 1,000 moji. However, if there happened to be a word consisting of 1,000 moji, the number of possible expressions of this word using Hiragana and Katakana would be tremendous.<sup>48</sup> Therefore, countless combinations are possible if all available characters are combined in different ways.

Coming back to おはよう, there are many combinations which are the result of LP (or just simple mistakes). For example (the patterns below are fictional),

<sup>48</sup>  $2^{1000}$  ( $\approx 1.072 \times 10^{301}$ , 0.01 Centilion)

- (1) おはよう
- (2) おはようー
- (3) おはよん~~~~
- (4) おっはああああああ~~~~

(1) is a standard form. (2) contains a long vowel symbol (ー) at the end of the word. (3) also has several long vowel symbols at the end; however, it also applies substitution – う is replaced with ん. (4) includes only the first two moji in a standard form (お and は), but at the end and between お and は, there are several additional moji and symbols. In these examples, LP have been applied a) directly to a standard form (e.g., (3)), and b) by adding additional moji between moji or at the end. The number of additional moji is not limited to one, as can be seen in (3) and (4). An estimate of possible combination patterns can therefore be calculated by counting possible patterns which are a manipulation of a standard form, called *base*, and moji additionally included, called *option*.

As an example, a greeting word “おはよう” (o ha yo u) is analysed to explore how Japanese people apply LP. おはよう consists of just four syllables. However, if we think of the possible patterns by combination of bases and options shown above, the potential number is tremendous.

LP (without use of non-syllable related symbols and emoticons) can be categorised as follows:

- a) Replacement at base position
- b) Additional vowels (whether small or big) as an option
- c) Additional long vowel symbols as an option
- d) Other additional words such as ‘っ’

a) includes a change of syllable between Hiragana and Katakana, and big to small moji. In some places, the syllable itself is changed to another syllable such as う to ん at the last moji in おはよ  
う. b), c), d) are LP and not complementary distribution, so b), c), d) can in theory be used limitlessly.

To consider a potential combination pattern, here the combination for which each a) to d) is applied once is considered. As the simplest model, since おはよう has four moji, the possible pattern can be described as in Figure 6.6. In the case of おはよう, a Japanese speaker can stop at the middle of the word. This means おはよ and おは are also possible expressions. That is, these places should include a  $\phi$  condition. In addition, not all LP appear, so these places also need to have a  $\phi$  condition in the model.

$$\begin{array}{c} \left\{ \begin{array}{c} \text{お} \\ \text{お} \\ \text{オ} \\ \text{オ} \end{array} \right\} \cdot \left\{ \begin{array}{c} \left( \begin{array}{c} \text{お} \\ \text{お} \\ \text{オ} \\ \phi \end{array} \right) \\ \left( \begin{array}{c} \text{ー} \\ \sim \\ \phi \end{array} \right) \\ \left( \begin{array}{c} \text{っ} \\ \text{ッ} \\ \phi \end{array} \right) \end{array} \right\} \cdot \left\{ \begin{array}{c} \text{は} \\ \text{ハ} \end{array} \right\} \cdot \left\{ \begin{array}{c} \left( \begin{array}{c} \text{あ} \\ \text{あ} \\ \text{ア} \\ \text{ア} \\ \phi \end{array} \right) \\ \left( \begin{array}{c} \text{ー} \\ \sim \\ \phi \end{array} \right) \\ \left( \begin{array}{c} \text{っ} \\ \text{ッ} \\ \phi \end{array} \right) \end{array} \right\} \cdot \left\{ \begin{array}{c} \left( \begin{array}{c} \text{よ} \\ \text{よ} \\ \text{ヨ} \\ \text{ヨ} \end{array} \right) \\ \left\{ \phi \right\} \\ \left\{ \phi \right\}^* \end{array} \right\} \cdot \left\{ \begin{array}{c} \left( \begin{array}{c} \text{う} \\ \text{う} \\ \text{ウ} \\ \text{ウ} \end{array} \right) \\ \left( \begin{array}{c} \text{う} \\ \text{ウ} \\ \text{う} \\ \phi \end{array} \right) \\ \left( \begin{array}{c} \text{ー} \\ \sim \\ \phi \end{array} \right) \\ \left( \begin{array}{c} \text{っ} \\ \text{ッ} \\ \phi \end{array} \right) \\ \left( \begin{array}{c} \text{お} \\ \text{お} \\ \text{オ} \\ \text{オ} \\ \phi \end{array} \right) \\ \left( \begin{array}{c} \text{お} \\ \text{お} \\ \text{オ} \\ \text{オ} \\ \phi \end{array} \right) \\ \left( \begin{array}{c} \text{ー} \\ \sim \\ \phi \end{array} \right) \\ \left( \begin{array}{c} \text{っ} \\ \text{ッ} \\ \phi \end{array} \right) \\ \left( \begin{array}{c} \text{ん} \\ \text{ん} \\ \phi \end{array} \right) \\ \left( \begin{array}{c} \text{ん} \\ \text{ン} \\ \phi \end{array} \right) \\ \left( \begin{array}{c} \text{ー} \\ \sim \\ \phi \end{array} \right) \\ \left( \begin{array}{c} \text{っ} \\ \text{ッ} \\ \phi \end{array} \right) \\ \left\{ \phi \right\} \end{array} \right\}
\end{array}$$

Note. If  $\phi$  is taken at this position, the following must be  $\phi$

Figure 6.6 A model of possible combination patterns of おはよう (under the condition that each additional element can apply only once to a base)

Based on this premise, the possible patterns calculated by this model are:

$$\begin{aligned}
& (4 \times 5 \times 3 \times 3) \times (2 \times 5 \times 3 \times 3) \times \\
& \{1 + 4 \times 1 \times 3 \times 3 \times (1 + 4 \times 5 \times 3 \times 3 + 4 \times 5 \times 3 \times 3 + 2 \times 3 \times 3 \times 3)\} \\
& = 242,044,200
\end{aligned}$$

Put simply, this means that Figure 6.6 illustrates the model discussion above. In theory, the number of combinations with replacements and additional moji for おはよう could be over 240 million if all patterns were to appear although the model sets a limitation in its LP applications. However, this does not, of course, happen in reality; there must therefore be a certain regulatory mechanism in operation when users apply LP.

#### 6.4.2 Case studies

##### Case study 1: おはよう (good morning)

Table 6.21 shows the actual patterns of LP found in the corpus (this table does not include emoticons attached to the word). Compared to the theoretically possible combination patterns of Keitai-mail expressions (this excludes words which consist of basic syllables other than おはよう such as おはようございます), only 55 patterns appear.

Table 6.21 Patterns of おはよう shown in Keitai-mail

No replacement					
Base only		Additional at the end	Additional in the middle	Total	
おはよう	271	おはよー	118	おはーよう	1
おはよ	82	おはよ～	35	おっはよ～	1
おは	8	おはよ L	9	おっはあ～	1
オハヨ	1	おはー	5	おっはー	1
		おはよう～	3	おーはー	1
		おはよっ	2		
		おはようっ	2		
		おはよう L	2		
		おはよ LL	2		
		おは～	2		
		オハヨー	1		
		おはよう LL	1		
		おはよ`～	1		
		おはよ-	1		
		おはっ	1		
		おはあ～	1		
		オハー	1		
<b>Total</b>	<b>362</b>		<b>187</b>	<b>5</b>	<b>554</b>
With Replacement					
おはよお	12	おはよー	3	おはよーう	3
おはよう	11	おばよ～	3	おっはよ～	1
おはよ	8	おばよー	2		
おはよん	6	おばよっ	2		
おはよ	5	オハヨ G	2		
おはよん	3	おはろ～	1		
おはよう	3	おはよっ	1		
おはよう	2	おはよお～ツ	1		
おはよう	2	おはよ G	1		
おはよお	2	おはよー	1		
おばよ	2	おはよ-	1		
おはよ	2	おはよ-	1		
おはよお	1				
おはよう	1				
オハヨ	1				
<b>Total</b>	<b>61</b>		<b>19</b>	<b>4</b>	<b>84</b>
	<b>423</b>		<b>206</b>	<b>9</b>	<b>638</b>

Note. L and G is an emoticon which has a shape like long vowel symbols

Table 6.21 is arranged by words including additional moji and replacements. The upper left column in the ‘no replacement’ group includes the patterns with no evidence of LP. Since the patterns only depend on the number of (base) moji, there are only four patterns in the column. The next column indicates words consisting of base syllables with additional moji at the end. This group has 17 patterns and is the group with most variety.



The lefthand column in the ‘with replacement’ group shows the numbers of words which make some replacement of base syllables. There are 15 patterns in the column and this is the group with the second most variety. The other columns show words with more complex LP patterns; the number of these is less than the patterns shown above. Therefore, it seems that users prefer simple applications of LP when creating a word.

Table 6.22 summarises the frequency of each LP’s patterns of application. This table shows that participants prefer not to use any LP involving syllable manipulations: over 50 % of occurrences of おはよう simply use the base syllables. In addition, when participants apply LP, they prefer to add some extra moji rather than to replace some syllables with others. The places where additional moji occur show a clear picture: participants prefer to add some extra at the end of the word rather than in the middle. The frequency rate is almost  $\times 20$  and this shows that putting additional moji in the middle of words is not so common.

Table 6.22 Summary of frequency patterns of language play

	W	W+EA	W+MA	Total
NR	362 (56.74%)	187 (29.31%)	5 (0.78%)	554 (86.83%)
WR	61 (9.56%)	19 (2.98%)	4 (0.63%)	84 (13.17%)
Total	423 (66.30%)	206 (32.29%)	9 (1.41%)	638

*Abbreviations.* W: Word by base moji, EA: Additional moji at the end

MA: Word including additional moji between the moji of base

NR: No replacement, WR: Word including replacements in their base syllable

Table 6.22 also highlights the tendency that simpler LP patterns are preferred to more complex ones. For instance, おはよう with both additions and replacements occurs much less frequently than おはよう to which only one or zero LP has been applied. These differences are apparent: Figure 6.7 illustrates how each number is different. This is one clue as to why only very limited patterns appear in Keitai-mail texts.

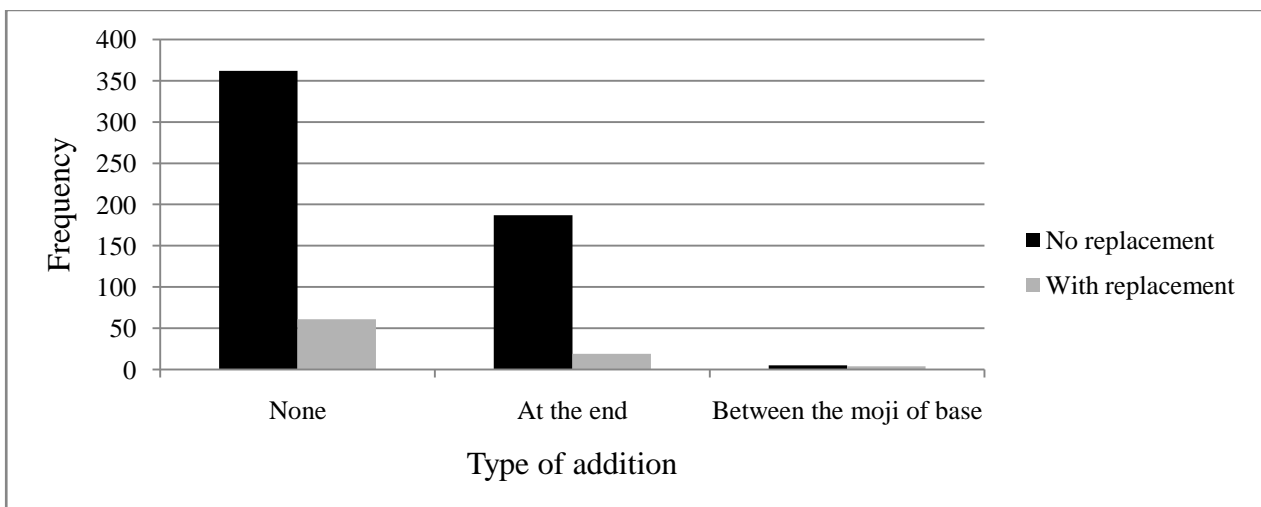


Figure 6.7 Frequency patterns of language play

To take the discussion further, we consider the frequency table reflected in the numbers of base syllables used in the patterns. Table 6.23 is an extended version of 6.22. First, in looking at these tables we can see that even the numbers of base syllables have three possibilities: two, three, and four; the participants choose the general form of おはよう (i.e., the number is four). Then follows the frequency of おはよ and the word using only two base syllables おは. While the words using base syllables have a tendency to keep that number of moji (96.02%), the words using fewer base syllables tend to have extra moji added when an output is created. For example, 65% of the word combinations from three base syllables contain extra moji.

Table 6.23 Numbers of language plays in terms of the numbers of base syllables

	N	W	W+EA	W+MA	Total
NR	4	271 (82.87%)	8 (2.45%)	1 (0.31%)	280 (85.63%)
	3	83 (28.62%)	169 (58.28%)	1 (0.34%)	253 (87.24%)
	2	8 (38.10%)	10 (47.62%)	3 (14.29%)	21 (100%)
WR	4	43 (13.62%)	1 (0.31%)	3 (0.92%)	45 (14.37%)
	3	18 (6.21%)	18 (6.21%)	1 (0.35%)	37 (12.76%)
	2	0	0	0	0
Total	4	314 (96.02%)	9 (2.75%)	4 (1.22%)	327 (100%)
	3	101 (34.83%)	187 (64.48%)	2 (0.69%)	290 (100%)
	2	8 (38.10%)	10 (47.62%)	3 (14.29%)	21 (100%)
					638

*Abbreviations.* N: Number of base moji, W: Words with base moji, EA: Additional moji at the end  
MA: Additional moji between the moji of base, NR: No replacement  
WR: Words including replacements in their base syllables

*Note.* Percentage shown in parenthesis is the proportion within the same number of base syllables, NOT proportion in total.

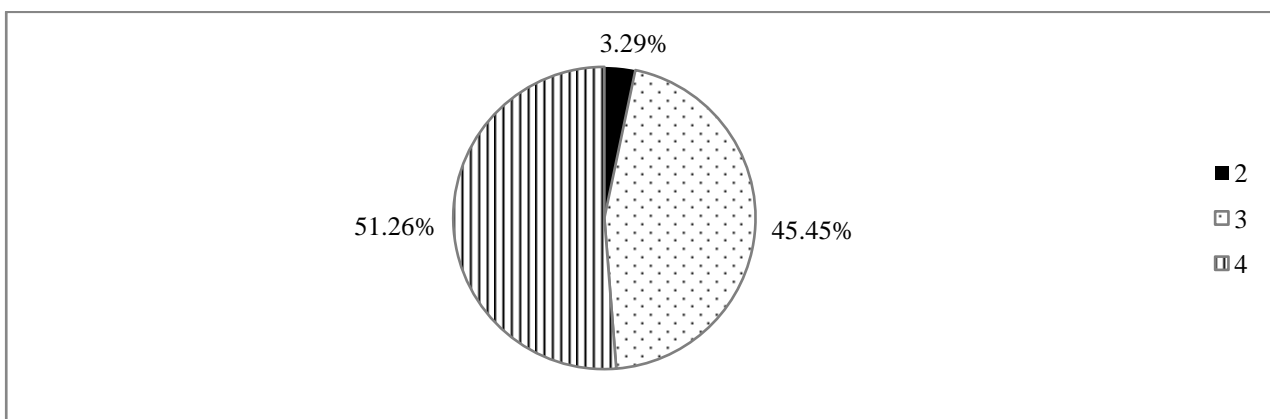


Figure 6.8 Frequency of words in terms of the number of use of base syllables

Table 6.24 depicts how many extra moji are added based on the number of base syllables used. These tables show that the participants include at best three extra moji. It would be possible for people to include more extra moji: however, the results indicate that almost 99% of word patterns apply fewer than one extra moji, so people seem not to want to add many extra moji even for LP purposes.

Table 6.24 Numbers of extra moji based on numbers of base syllables

Base syllables	Numbers of extra moji (numbers in parenthesis are total length)			
	0	1	2	3
2	8 (1.26%)	9 (1.41%)	3 (0.47%)	0
3	101 (15.83%)	185 (29.00%)	2 (0.31%)	3 (0.47%)
4	314 (49.22%)	11 (1.73%)	2 (0.31%)	0
Total	423 (66.30%)	205 (32.13%)	7 (1.10%)	3 (0.47%)

Table 6.25 summarises the total number of moji after extra words are attached, and shows the interesting tendency that even though the proportion of use of three base syllable patterns and four base syllable patterns is almost the same, 80% of patterns consist of four moji equivalent to the general form おはよう.

Table 6.25 Total numbers of moji based on numbers of base syllables

Base syllables	Total Numbers of moji including extra moji				
	2	3	4	5	6
2	8 (1.25%)	9 (1.41%)	3 (0.47%)	0	0
3		101 (15.83%)	185 (29.00%)	2 (0.31%)	3 (0.47%)
4			314 (49.22%)	11 (1.73%)	2 (0.31%)
Total	8 (1.25%)	110 (17.24%)	502 (78.68%)	13 (2.04%)	5 (0.79%)

A possible reason here is that the third moji よ and its additional elements of long vowel symbols (ー) and small 'tsu' (っ) have a pronunciation similar to the original one of よう. Long vowel symbols in particular are used as an extra, so long vowel symbols are a replacement for ゃ. This could be because よう is pronounced /yo:/ (same pronunciation as よお) rather than /yo u/, and long vowel symbols function to make a long vowel which entails a moji just before this symbol. In this case, long vowel symbols attach to よ(yo), and then extend the sound of the vowel 'o'. Therefore, the pronunciation becomes the same and it is easy for people to apply these long vowel symbols naturally without the interference of strangeness in the sound. (Matters relating to pronunciation and LP are also discussed later in relation to other examples).

Table 6.26 illustrates how many replacements and additions in total are found in relation to おはよう. With the result shown in Table 6.26, Table 6.27 and Figure 6.9 show the frequency and proportion in terms of the total number of LP applied. These two tables indicate that the participants do not use many LP to ornament a word: over 90% apply only one LP or do not use them at all. Therefore, manipulations involving extra syllables and related auxiliary symbols are not much applied and people tend to use this greeting in a simple rather than complex manner.

Table 6.26 The relationship between replacements and additions found

Replacement	Addition				Total
	0	1	2	3	
0	362 (56.74%)	183 (28.68%)	8 (1.25%)	1 (0.16%)	554 (86.83%)
1	42 (6.58%)	20 (3.14%)	1 (0.16%)	1 (0.16%)	64 (10.03%)
2	12 (1.88%)	1 (0.16%)	0	0	13 (2.04%)
3	7 (1.10%)	0	0	0	7 (1.10%)
Total	423 (66.30%)	204 (31.98%)	9 (1.41%)	2 (0.31%)	638

Table 6.27 Total numbers of replacements and additions applied to おはよう

Number of language play	Frequency	%
0	362	56.74%
1	225	35.27%
2	40	6.27%
3	8	1.57%
4	1	0.16%

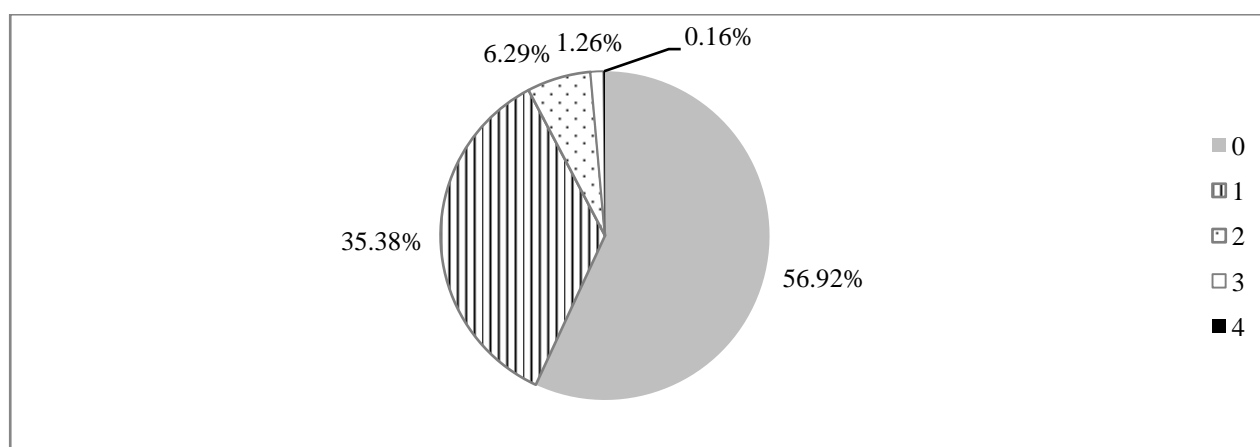


Figure 6.9 Proportion of how many language plays are applied to おはよう

Based on the case study of おはよう, the following mechanisms are predicted:

- With some exceptions, people prefer to apply syllable-related LP in a simple manner.
- These LP are not so widely used.
- Long vowel symbols are a quite suitable replacement when the actual pronunciation is similar to the pronunciation of the word which is the result of the application of the symbols.

In addition, these results also indicate that people seem to prefer to take non-stop articulation vowel pronunciation rather than stop vowel pronunciation. For example, the participants use ‘~’ for the sound of /o/, which indicates more air through than /u/. Moreover, replacements of large vowels with small vowels can indicate a degree of lessened articulation in pronunciation. This matter will be further discussed in relation to other examples later in the chapter, but on the basis of the above example alone, the patterns appearing in relation to おはよう are evidence that phonetic

information has an essential role in the evolution of written language. In other words, the sound of language has a strong impact on written language. Therefore, Keitai-mail provide good evidence when analysing this aspect of the nature of language.

*Case study 2: こんにちは (hello)*

This section discusses another greeting message, こんにちは. Table 6.28 shows all patterns appearing in the data. Tables 6.29 to 6.33 and Figures 6.10 and 6.11 summarise statistical information in the same way as the presentation of おはよう above.

Table 6.28 Patterns of こんにちは shown in the data

No replacement				
Base only		Additional at the end	Additional in the middle	Total
こんにちは	195	こんにちは～	7	
コンニチハ	1	こんにちはー	4	
		こんにちはっす	1	
	(196)		(12)	
こんちは	7	こんちはっ	1	
コンチ	1	こんちゃ	1	
		こんちゅーす	1	
		こんちにはー	1	
	(8)		(4)	
	204		16	0
With Replacement				
こんにちわ	30	こんにちわー	2	こんにちくわ 2
		こんにちわっ	2	
		こんにちわッ	1	
		こんにちわ～	1	
		こんにちわぁ	1	
	(30)		(7)	
こんちわ	7	こんちわー	1	
	(7)		(1)	
	37		8	2
Total	241		24	2
				267

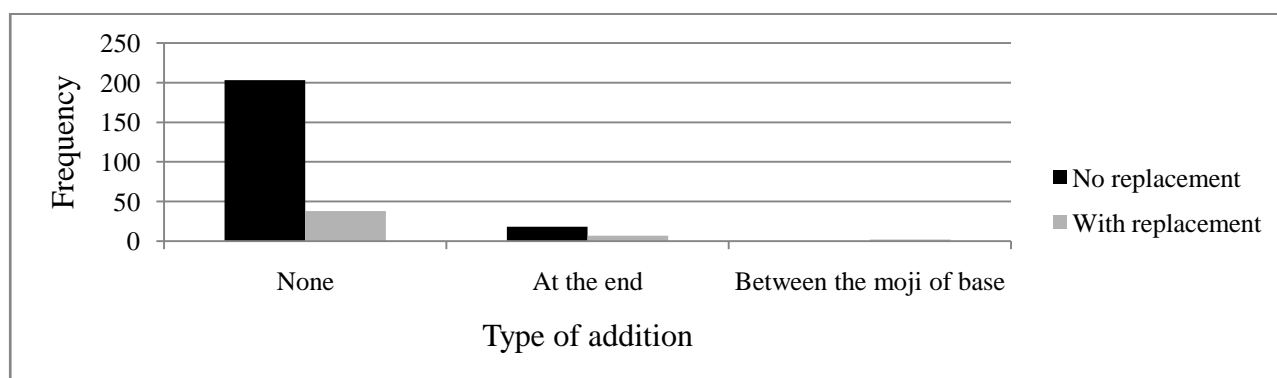


Figure 6.10 Frequency of language plays applied to こんにちは

Table 6.29 Numbers of language plays in terms of the numbers of base syllables applied to こんにちは

	N	W	W+EA	W+MA	Total
NR	5	196	15	0	211
	4	7	1	0	8
	3	0	2	0	2
		203	18	0	219 (82.40%)
WR	5	30	6	0	36
	4	7	1	2	10
	3	1	0	0	0
		38	7	2	48 (17.60%)
Total		241	25	2	267

*Abbreviations.* N: Number of base moji, W: Words with base moji, EA: Additional moji at the end  
MA: Additional moji between the moji of base, NR: No replacement  
WR: Words including replacements in their base syllables

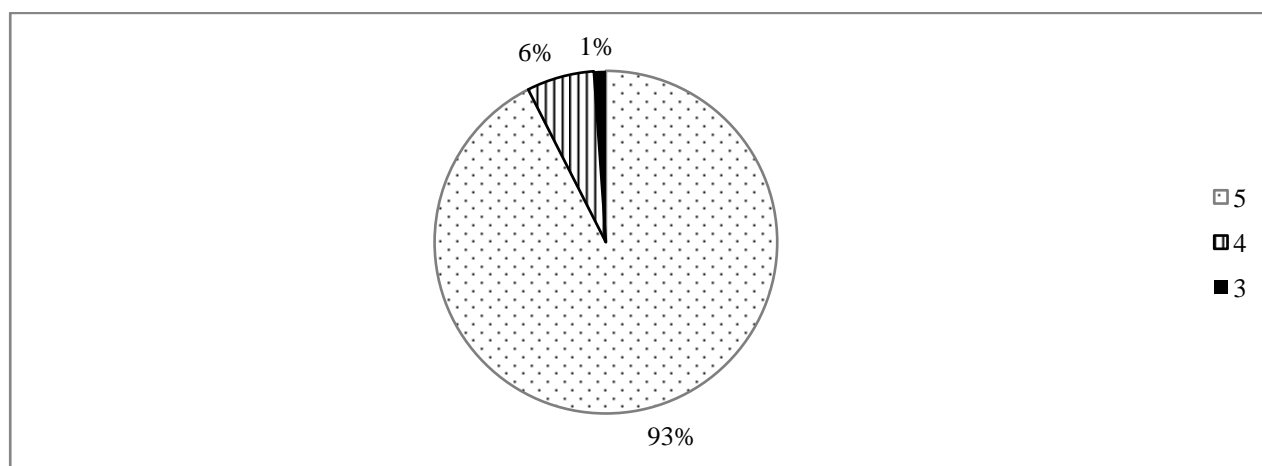


Figure 6.11 Frequency of words in terms of the number of use in base syllables applied to こんにちは

Table 6.30 Numbers of extra moji based on numbers of base syllables applied to こんにちは

Base syllables	Numbers of extra moji (numbers in parenthesis are total length)			
	0	1	2	3
3	1	1	0	1
4	14	3	0	0
5	227	19	1	0
Total	242	23	1	1

Table 6.31 Total numbers of extra moji based on numbers of base syllables applied to こんにちは

Base syllables	Total Numbers of moji including extra moji				
	3	4	5	6	7
3	1	1	0	1	0
4		14	3	0	0
5			227	19	1
Total	1	15	230	20	1

Table 6.32 Relationship between replacements and additions in terms of こんにちは

Replacement	Addition				Total
	0	1	2	3	
0	204	15	0	1	220
1	39	7	1	0	47
Total	243	22	1	1	267

Table 6.33 Total numbers of replacements and additions applied to こんにちは

Number of language play	Frequency	%
0	204	76.404%
1	54	20.225%
2	8	2.996%
3	1	0.375%

Through this statistical information, we can see the same tendency, that participants mainly choose a very simple form as their original one (a full five syllables of こんにちは without using LP), and they also use some LP in a simple manner.

Comparing おはよう and こんにちは, while the former uses additional moji more than replacements, the latter shows the opposite pattern. This can be explained thus: to use replacements in おはよう requires a certain level of incongruity, but to replace は with わ (こんにちは to こんにちはわ) seems more natural since は in こんにちは is pronounced /wa/, i.e., it is equivalent to the sound of わ. This result accords with the prediction from the previous section as well and affords further evidence for the prediction of phonological dependency in composing a written text.

As a base syllable reduction form, the participants use こんちは, which omits a syllable in the middle, rather than こんにちは, which omits a syllable at the end in the same way as おはよ. The reason for こんちは as a word pattern is simply that this is a reflection of the spoken form of modern Japanese in Keitai-mail texts and is doubtless natural. However, it is interesting that there is no こんにちは pattern in the data. This indicates that even though LP is a creative act with a theoretically infinite potential to form patterns, people tend to create patterns based on common usage of language (phonetic contraction). In this case study, the reflection of phonetic contraction is only about 7.5% (20/267), not a great proportion, but this property is further discussed together with other phenomena from the data.

The case study of こんにちは gives supporting evidence for the predictions in the previous section, and also tells us that even though LP are a way to impart some form of uniqueness which violates a standard rule, this also depends on relative maintenance of the naturalness of the standard rules: the limitation of LP is that they cannot violate the standard rules too much, in order to keep the original meanings of each word.

Case study 3: *こんばんは* (Good evening)

Table 6.34 illustrates the patterns found for *こんばんは*. The table shows basically the same tendency as the case of *こんにちは*. In particular, the replacement of *は* with *わ* occurs to a certain extent, as shown by Figure 6.12 showing a similar shape to Figure 6.13.

Table 6.34 Patterns of *こんばんは* shown in Keitai-mail in terms of type of syllable

No replacement					
Base only	Additional at the end		Additional in the middle		Total
こんばんは	272	こんばんは～	17	こんばん～ん	1
こんばん	1	こんばんはー	5	おこんばんは	1
		こんばんはぁ	2		
		こんばんはっ	1		
		こんばんはッ	1		
		こんばんー	1		
	(273)		(29)		(2)
今晚は	15	今晚は～	3		
		今晚はー	1		
	(15)		(4)		(0)
	288		32		2
With Replacement					
こんばんわ	48	こんばんわ～	3		
コンバンワ	5	こんばんわぁ	1		
こんばんわ	4	こんばんわッ	1		
こんばんみ	5	こんばんみ～	1		
		こんばんみー	2		
		こんばんみい	1		
	(62)		(9)		(0)
今晚わ	3	今晚わんこそば	1		
今晚和	1				
今晚わ	2				
	(6)		(1)		(0)
	68		10		0
Total	356		41		2

*Note.* The number in parenthesis shows the total number in each subcategory.

For more detailed discussion, compared with the case of *こんにちは*, *こんばんは* (good evening) includes a significantly different pattern: *こんばんは* can be written in Kanji 今晚は. The proportion of the Kanji form is small in the overall patterns. As for the two patterns, if the occurrence is illustrated based on percentile (Figure 6.13), both patterns show the same tendency as the tendency as a whole shown in Figure 6.12. This result indicates that the overall tendency towards choosing a simple pattern is not affected by the type of moji.



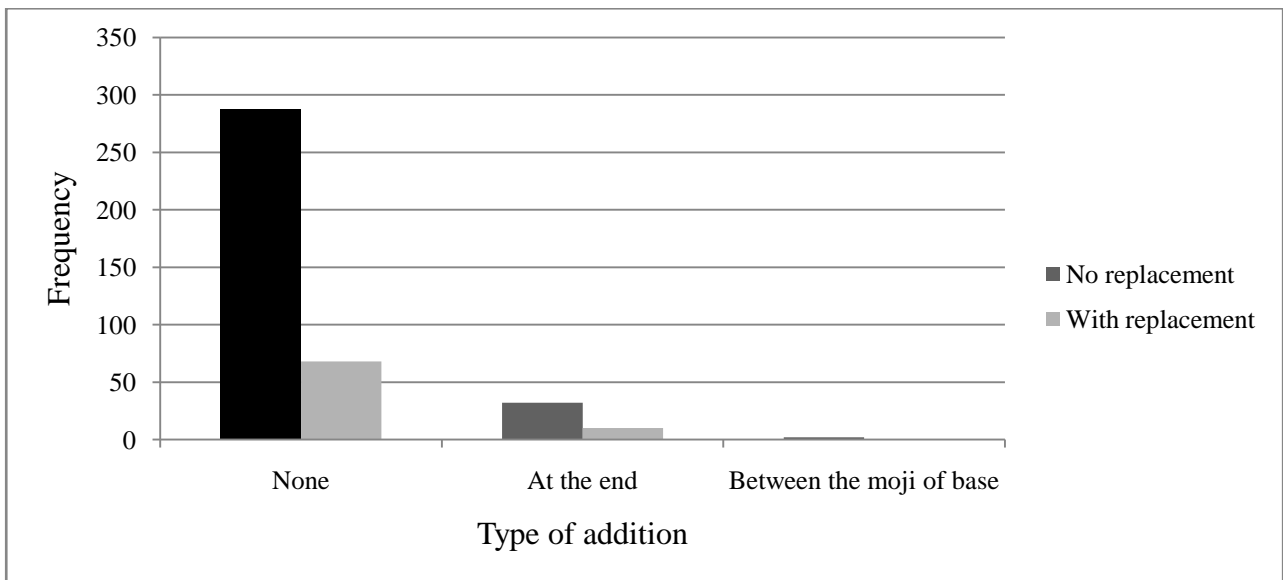
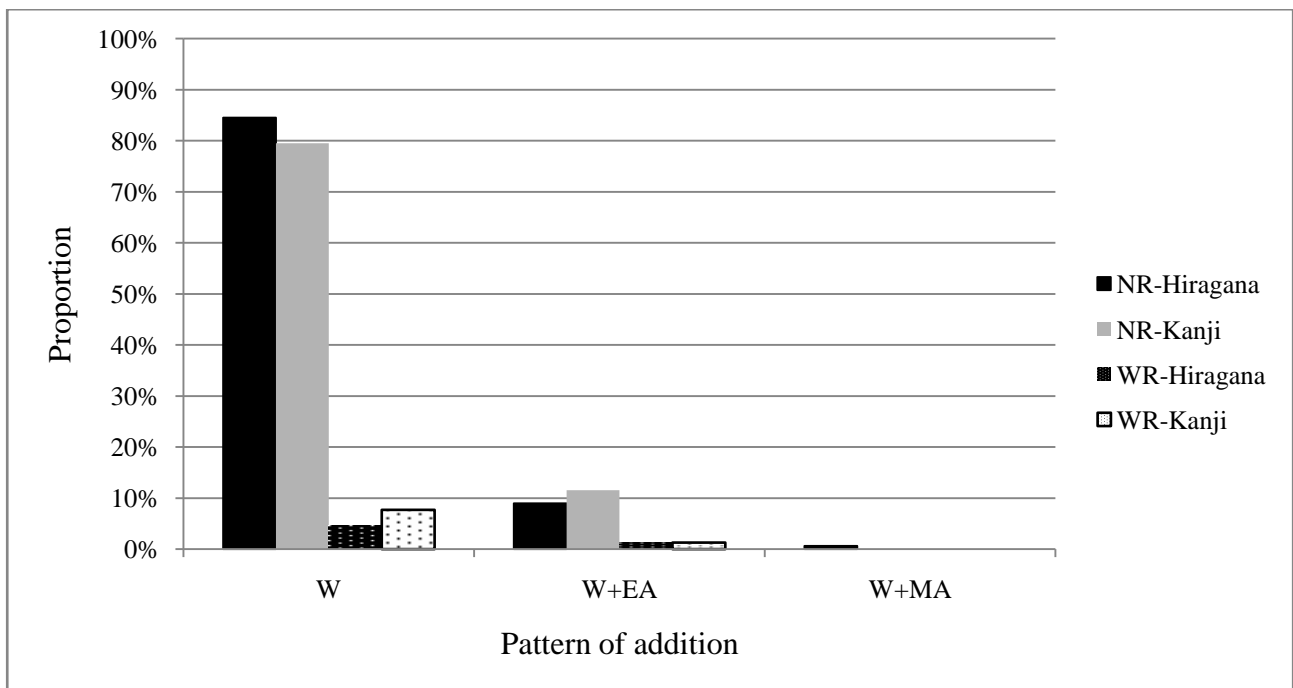


Figure 6.12 Proportion of language plays in *こんばんは*



*Abbreviations.* W: Words with base moji, EA: Additional moji at the end  
 MA: Additional moji between the moji of base, NR: No replacement  
 WR: Words including replacements in their base syllables

Figure 6.13 Proportion of language plays in terms of type of moji (percentile of each type)

In terms of the number of moji, Table 6.35 summarises the proportion of occurrence based on the number of moji compared with the standard form. For example, *こんばん* consists of four moji, and since the standard form of *こんばんは* is a five-moji word, so *こんばん* is categorised as N-1. Similarly, *今晚わんこそば*, which is a unique pattern from *今晚は*, consists of seven moji, and its original *今晚は* has three moji, so *今晚わんこそば* is counted as N+4 category (Figure 6.14 illustrates the percentile of each pattern).

Table 6.35 The length of word patterns in terms of the standard number of moji in terms of こんばんは

Number of moji	Syllable		Kanji	
	Frequency	Percentile	Frequency	Percentile
N-1	1	0.28%	0	0.00%
N	321	89.66%	21	80.77%
N+1	36	10.06%	4	15.38%
N+2	0	0.00%	0	0.00%
N+3	0	0.00%	0	0.00%
N+4	0	0.00%	1	3.85%

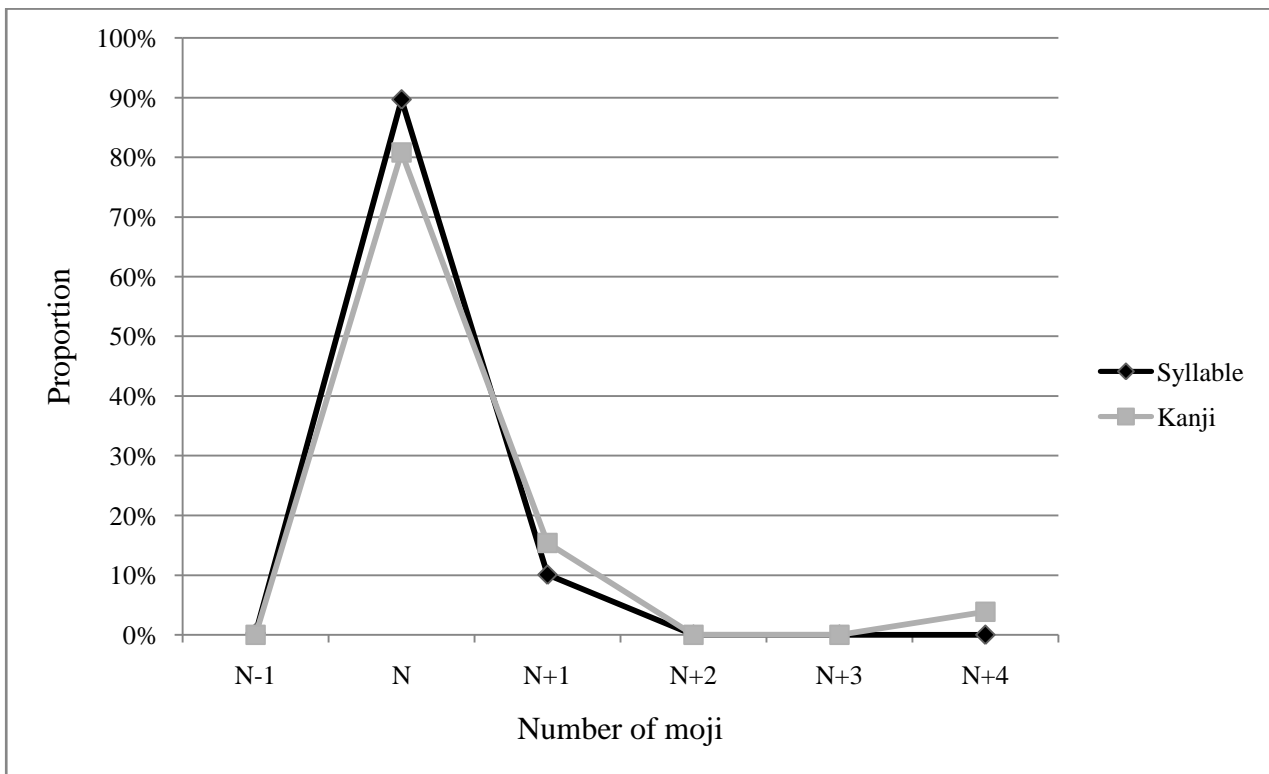


Figure 6.14 Percentile of length of each word pattern based on moji types in terms of こんばんは

These summaries suggest that, even though a word may exhibit several patterns, the distribution of each pattern centralises at the number of the standard form. Moreover, as with the previous case study, people usually employ minimal addition and subtraction to create a LP. In the case of 今晚わんこそば, one Kanji form has four additional moji as shown. Here, わんこそば (a type of Soba noodle) is a word and the sequence of four additional moji in this expression is just a case of use of an additional word instead of adding four separate moji. Even though the table shows there is a word of extreme length (7 moji) in the data, the formation of these four additional moji can be as simple as other patterns which only require minimum effort. Therefore, simplicity in LP is a basic tendency and it can be done through different types of moji.

Another replacement pattern unique to the こんばんは pattern is the replacement of the last

syllable は(ha) with み(mi) : *こんばんみ*. This is outside the word-addition rules seen in the previous examples including attachment of an additional vowel, long vowel marks, and methods which result in a sound pattern similar to the standard one. That is because this case has a different source: *こんばんみ* comes from the comedy material of a popular Japanese comedian called *Bibil Ohki* (ビビる大木). He is to a certain extent famous among Japanese comedians; many people are likely to have heard *こんばんみ* when viewing his TV program. In addition, his longtime use of this term shows that the sound of *こんばんみ* is natural enough to be accepted by many Japanese, particularly young people. Therefore, it occurs in Keitai-mail as a frequent pattern, providing supporting evidence of social influence on language use (further details are discussed in Chapter 8).

Through these three case studies, it can be predicted that LP are creative acts based on standard forms using relatively simple methods without too much violation of the principle of naturalness to a native speaker of Japanese. Sounds, in particular the exact sounds as sensory information (such as the は of *こんばんは* being pronounced /wa/), have a relatively large impact on LP. Patterns where LP violates the natural sound expected in standard Japanese appear less frequently, and message creators are not likely to employ them.

#### 6.4.3 Symbols for emotional expressions – patterns of use

This section discusses how participants use emoticons in Keitai-mail. It focuses on the following four types of symbols which are used as emotional markers: pre-installed symbols and emoticons (i.e, Kaomoji, Emoji, and Decome). These four types of symbols will be called *Emotive Graphic Signs* (EGS), following Kataoka (2009), in the following discussion. The purpose of this section is to understand overall patterns of emoticon use, particularly in contrast with the patterns of LP which directly manipulate syllables or moji themselves. In other words, this section analyses the pattern of style in the extra-textual part of Keitai-mail texts which is equivalent to phonological representation and body-language.

As an example, Table 6.36 show all patterns of おはよう which appeared in the Keitai corpus. Unlike Table 6.21, this table includes the occurrences of emoticons. There are actually many more patterns compared with patterns which do not include EGS. Firstly, Table 6.37 and Figure 6.15 illustrate how many EGS are applied to a pattern. They show that, similar to LP, there are a few EGS used with the word おはよう and its derivations. One is the largest number, followed by 0 and 2. The frequency 0 to 2 accounts for more than 97% and it can be predicted that people use a small number of EGS, so it is also possible that each type of EGS is chosen intentionally based on the users' judgments of what is the appropriate occasion for each type, since applying only one EGS means that they are limited to only one type.

Table 6.36 Occurrences of combination patterns of おはよう

W		MA		R	
おはよう E	144	おはよーE	69	おはよお EE	6
おはよ E	41	おはよーEE	17	おはよお E	5
おはよう。	28	おはよ～E	15	おはよ D	4
おはよう！	24	おはよー	14	おはよ DD	4
おはよう	23	おはよ～	11	おはよん E	4
おはよう EE	21	おはよ LE	8	おはよう EE	3
おはよ EE	12	おはよー！！	6	おはよう E	3
おはよう D	9	おはーE	5	おはよ E	2
おはよ！	5	おはよーEEE	5	おはよ EE	2
おはよ D	5	おはよ～EE	4	おはよう E	2
おは E	4	おは～E	2	おはよお D	2
おはよう EEE	4	おはよ～DD	2	おげよ E	2
おはよ	4	おはよう～E	2	おはよう D	2
おはよ。	3	おはようっ E	2	おはよ EE	1
おはよう DD	3	おはよう LE	2	オハヨ E	1
おはよう。E	3	おはよ LLE	2	おはよう	1
おはよう K	3	おはよーK	2	おはよう DD	1
おは EE	2	おはよー☆	2	おはよう DD	1
おはよ DD	2	おはよっ E	2	おはよう DDD	1
おはよ DDD	2	おはよう LLE	1	おはよう D	1
おはよ EEE	2	おはよ L	1	おはよう EEE	1
おはよ K	2	オハーEE	1	おはよう E	1
おはよ☆	2	おはよう～	1	おはよう	1
おはよう！！	2	おはっ E	1	おはよ D	1
おはよう DE	2	おはよ-D	1	おはよ E	1
おはよう EEEEEEE	1	おはよゝ～D	1	おはよう！	1
おはよう KD	1	おはよ～EEE	1	おはよお	1
おはよう？	1	おはよ～K	1	おはよん EE	1
おはよう☆	1	おはよ～。	1	おはよん ww	1
おはよう ♪	1	おはよーD	1	おはよん	1
おは K	1	おはよーDD	1	おはよん D	1
おは=E	1	オハヨーE	1	おはよん E	1
おはよ E=	1	おはあ～	1	おはよお DD	1
オハヨ E	1	おはよー。	1		
おはよ...E	1				
	362		187		61

*Abbreviations.* K:Kaomoji, E:Emoji, D:Decome, L and G: Symbols for long vowel symbols  
W: Words with base moji, MA: Additional moji between the moji of base  
R: Words including replacements in their base syllables

Table 6.36 (Continued)

R+MA		EA		R+EA	
おぼよ～E	2	おーはーD	1	おはよーう E	2
おぼよーE	2	おっはよ～DD	1	おはよーう EE	1
おぼよっ E	2	おっはーE	1	おっはよ～DD	1
おはよー	2	おっはあ～DD	1		
おぼよ～	1	おはーよう！！	1		
おはよーD	1				
おはよっ E	1				
おはよーE	1				
おはよお～ッ E	1				
オハヨ GEEE	1				
おはよ-E	1				
おはよ GE	1				
オハヨ GE	1				
おはろ～D	1				
おはよ-E	1				
	19		5		4

Abbreviation. EA: Additional moji at the end

Table 6.37 Frequency of Emotive Graphic Signs

Number of EGS	Frequency	Percentile
0	62	9.72%
1	451	70.69%
2	107	16.77%
3	17	2.66%
7	1	0.16%

Abbreviation. EGS: Emotive Graphic Signs

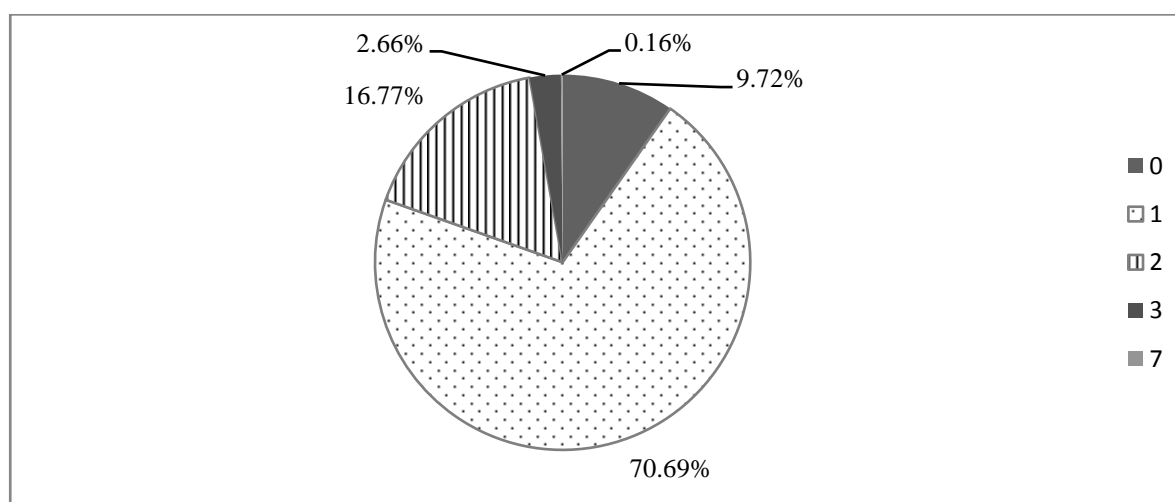


Figure 6.15 Frequency of symbols for emotional expressions

As an overall picture of this tendency, Table 6.38 summarises the average for how frequently each emotional representation appears. This table suggests that the mean score of EGS is 1.08; this is

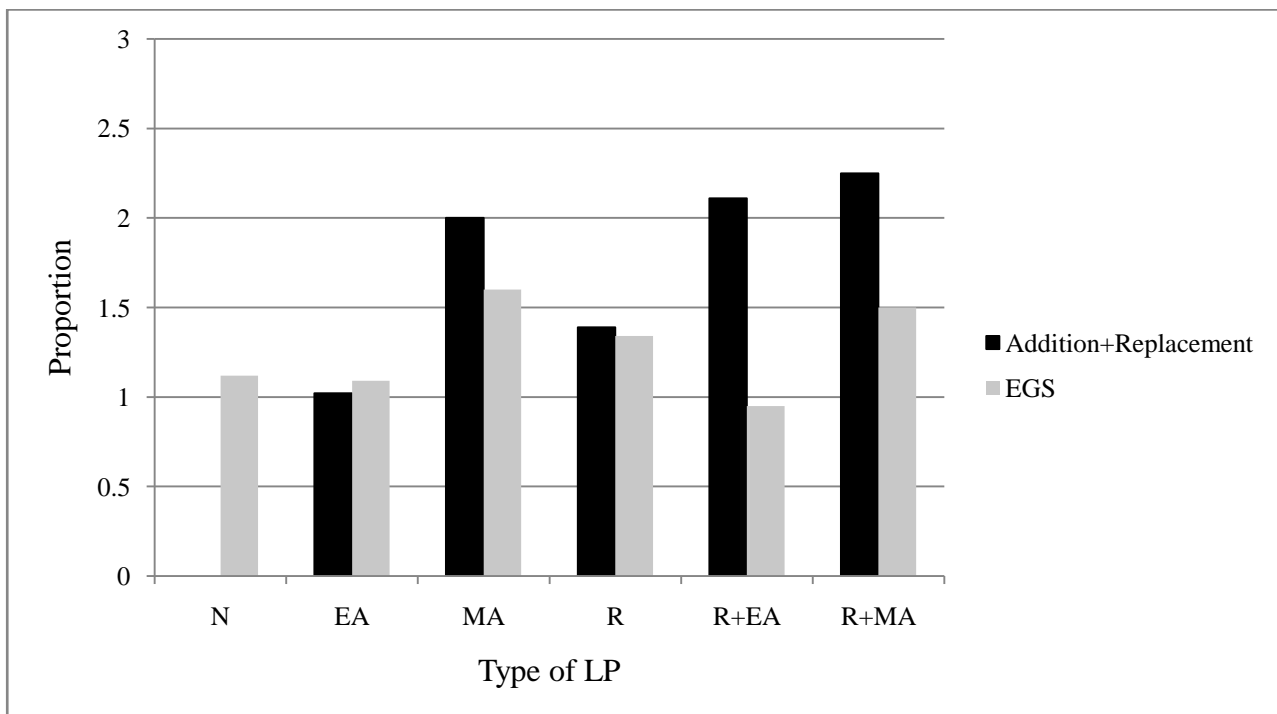
equivalent to Table 6.38. In addition, the use of each EGS shows that Emoji use is the most frequent pattern of the four, and the other three occupy only a small amount in terms of proportion.

Table 6.38 Means and standard deviations for language plays and emoticons

	F	A	R	A+R	Symbol	K	E	D	EGS
None	362	0	0	0	0.02	0.02	0.81	0.09	1.12
EA	187	1.02	0	1.02	0.02	0.02	0.93	0.05	1.09
MA	5	2	0	2	0.4	0	0.2	1	1.6
R	61	0	1.39	1.39	0.03	0.00	0.84	0.46	1.34
R+EA	19	1.05	1.05	2.11	0	0	0.84	0.11	0.95
R+MA	4	1.25	1	2.25	0	0	1	0.5	1.5
Total	638	0.35	0.17	0.53	0.01	0.02	0.84	0.12	1.13

*Abbreviations.* F: Frequency, A: Addition, R: Replacement, K: Kaomoji, E: Emoji, D:Decome  
EGS: Emotive Graphic Signs

Figure 6.16 is a visual representation of Table 6.38, and this clarifies some characteristics of the relationship between LP and EGS. The gray and black lines represent the number of LP and EGS respectively. Whereas LP show a linear increase when their application becomes more complex, the use of EGS shows only moderate change. Therefore, LP and the use of EGS seem to be applied independently of each other. This is a key feature of the style of Keitai-mail: the application of LP (mainly phonological expressions) and EGS (functioning as body language) is practised differently.



*Abbreviations.* EGS: Emotive Graphic Signs, N: No addition or replacement,  
MA: Additional moji between the moji of base, EA: Additional moji at the end  
R: Words including replacements in their base syllables

Figure 6.16 Illustration of each type of uniqueness in terms of the 6 patterns

Table 6.39 shows the Kendall's correlation coefficient for the usage of the four types of EGS, which evaluates whether the use of one type of EGS influences the use of other types of EGS or not. Most combinations, even though very weak, show negative correlations. This means that if the number of one type of EGS is increased, another symbol is less used, and this result also supports the prediction above. Among the weak negative correlations are two combinations having relatively stronger correlations: 1) Symbols and Emoji, 2) Kaomoji and Emoji, and 3) Emoji and Decome. This phenomenon can be discussed in terms of the properties of each kind of EGS. Emoji are the most favoured choice; each Emoji independently expresses some extra-textual meanings. In addition, the correlation coefficients suggest that people have a subtle tendency to choose one type of EGS rather than two in adding emotional expressions to a word (or phrase if おはよう is seen as a greeting phrase).

Table 6.39 Kendall's Correlation coefficient between each emoticon

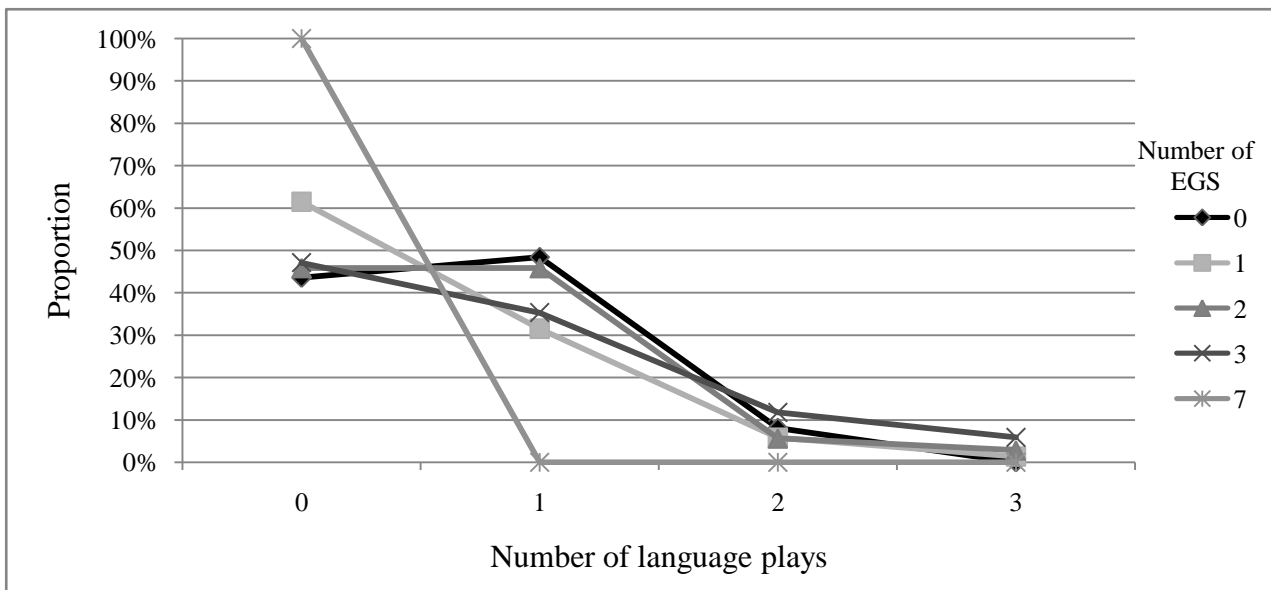
	Symbol	Kaomoji	Emoji
Kaomoji	-0.016		
Emoji	-0.138	-0.158	
Decome	0.005	0.005	-0.364

Table 6.40 picks up the relationship between LP and the use of EGS. Figure 6.17 illustrates the table as a percentile basis in terms of how many EGS are used when the number of LP is changed, and shows that LP decrease at a similar rate regardless of greater or lesser use of emoticons.

Table 6.40 Relationship between language plays and Emotive Graphic Signs

LP/EGS	0	1	2	3	7	Total
0	27	277	49	8	1	362
1	30	142	49	6	0	227
2	5	26	6	2	0	39
3	0	6	3	1	0	10
Total	62	451	107	17	1	

*Abbreviations.* LP: language plays, EGS: Emotive Graphic Signs



Abbreviation. EGS: Emotive Graphic Signs

Figure 6.17 Relationship between language plays and Emotive Graphic Signs

Table 6.41 indicates there is mostly no correlation between LP and emoticons use – the actual correlation coefficient is 0.0928. These results show that people apply LP and EGS as two different choice mechanisms which basically do not affect each other.

Table 6.41 Correlation coefficient for language plays and Emotive Graphic Signs

Type	Symbol	Kaomoji	Emoji	Decome	Total
Addition	-0.011	-0.011	0.061	-0.061	-0.041
Replacement	-0.012	-0.048	-0.013	0.258	0.092

However, although the overall tendency is for users to use LP and EGS as two different categories, Table 6.41 also suggests that in the case of replacements EGS have a higher mean score, particularly Decome use, compared to おはよう patterns without replacement. To analyse this tendency, correlation coefficients for LP and EGS were calculated.

As for Decome use, the result would suggest that since replacement is more time and effort consuming, this means people are more motivated to create unique and interesting messages and actually invest energy in doing this. Therefore, they also tend to use more emoticons, in particular Decome which need to be downloaded or kept when messages with Decome are received, to give a more special kind of ornamentation. In addition, using additional moji in the middle can be more of a burden than adding extra moji at the end; this also reflects motivation to create an interesting message, and that is why Decome are more often used than the other patterns.

Based on the results in this section and the previous three sections, it can be suggested that even though people tend to choose simple patterns of LP and fewer numbers when adding EGS, they also choose more complex or time-consuming patterns when they try to create interesting messages since complex patterns enable them to differentiate their messages more in this way.



## 6.5 Language plays and vowels

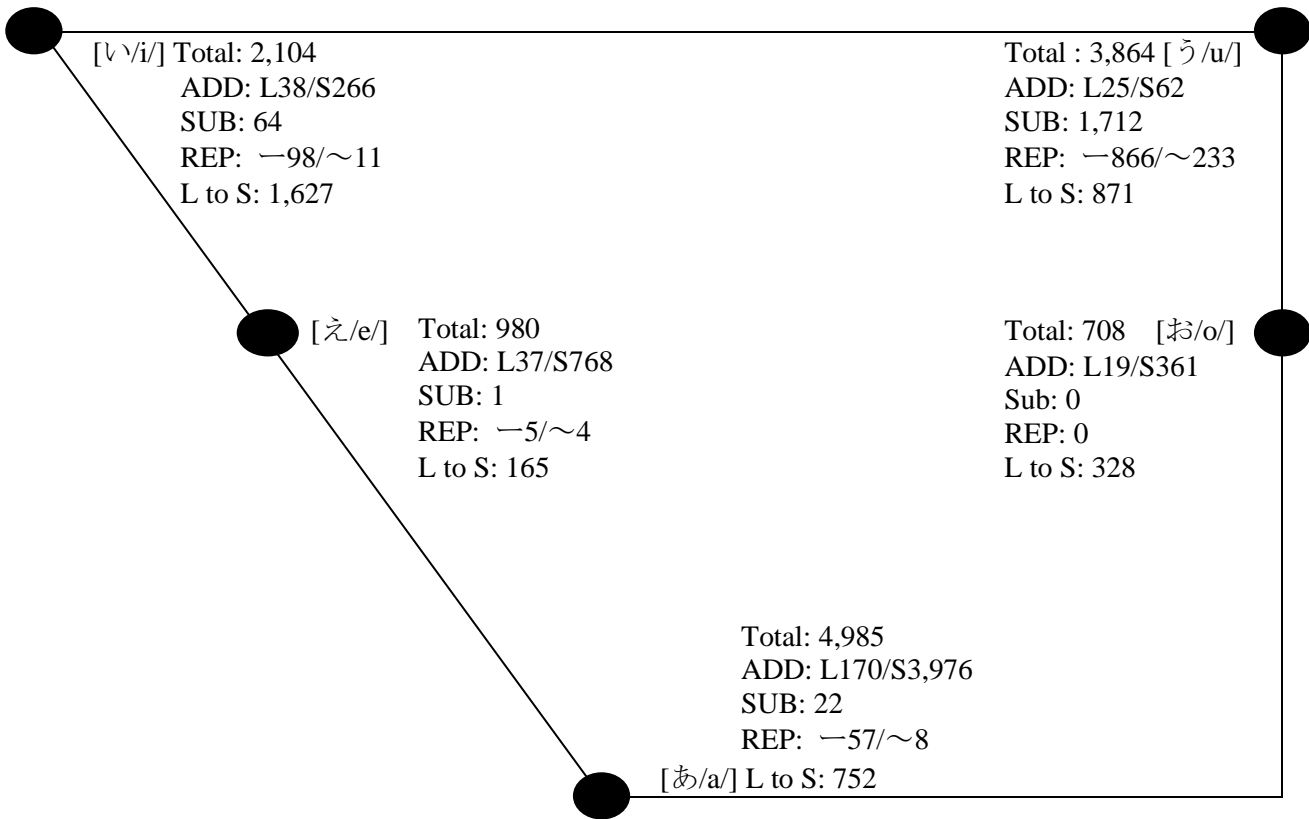
As discussed in the previous three sections, it can be seen that vowels play a big role in the application of LP in Japanese. The importance of vowels in English is also discussed by Crystal (2008) in that they are omitted as contractions (in the middle) and clippings (at the end), particularly in the language used on the Internet. The importance of vowels in Japanese with its consonant-vowel syllable structure may easily be suspected to be crucial in analysing the language found in Keitai-mail as a type of CMC. In Fairclough's terms, this section analyses the presentation of phonological information as a part of the style of Keitai-mail.

All simple vowels have a large and small moji form; as well, they can be replaced by long vowel symbols such as 'ー' or '〜', even though in standard Japanese these symbols are not normally used in Hiragana words. In addition, each Japanese syllable ends in a vowel, which, when the word is written in Hiragana or Katakana, can be extended by this means. As Section 5.4 showed, LP are commonly applied at the end of words and therefore it is understandable that vowels have a central function in LP. For these reasons, this section further analyses the relationship between vowels and LP.

Table 6.42 summarises how each type of LP is applied to each vowel and Figure 6.18 illustrates how each LP occurs in terms of each vowel based on manner of articulation. This figure includes four types of LP: addition (adding large moji and small moji), subtraction, replacement of long vowel symbols, and replacement of large moji with small moji (e.g., あ with ぁ). Figures 6.19 and 6.20 represent Table 6.42 in visual form.

Table 6.42 Each vowel and language plays

Type	a	i	u	e	o
Addition of large size moji	170	38	25	37	19
Addition of small size moji	3,964	266	62	768	361
Subtraction	22	64	1,712	1	0
Replacement of long vowel symbol ー	57	98	866	5	0
Replacement of long vowel symbol ー	8	11	233	4	0
Replacement from large moji to small moji	752	1,627	871	165	328



Abbreviations. ADD: Addition, SUB: Subtraction, REP: Replacement  
 L to S: Large moji (L) to small moji (S)

Figure 6.18 Language plays and vowels based on manner of articulation

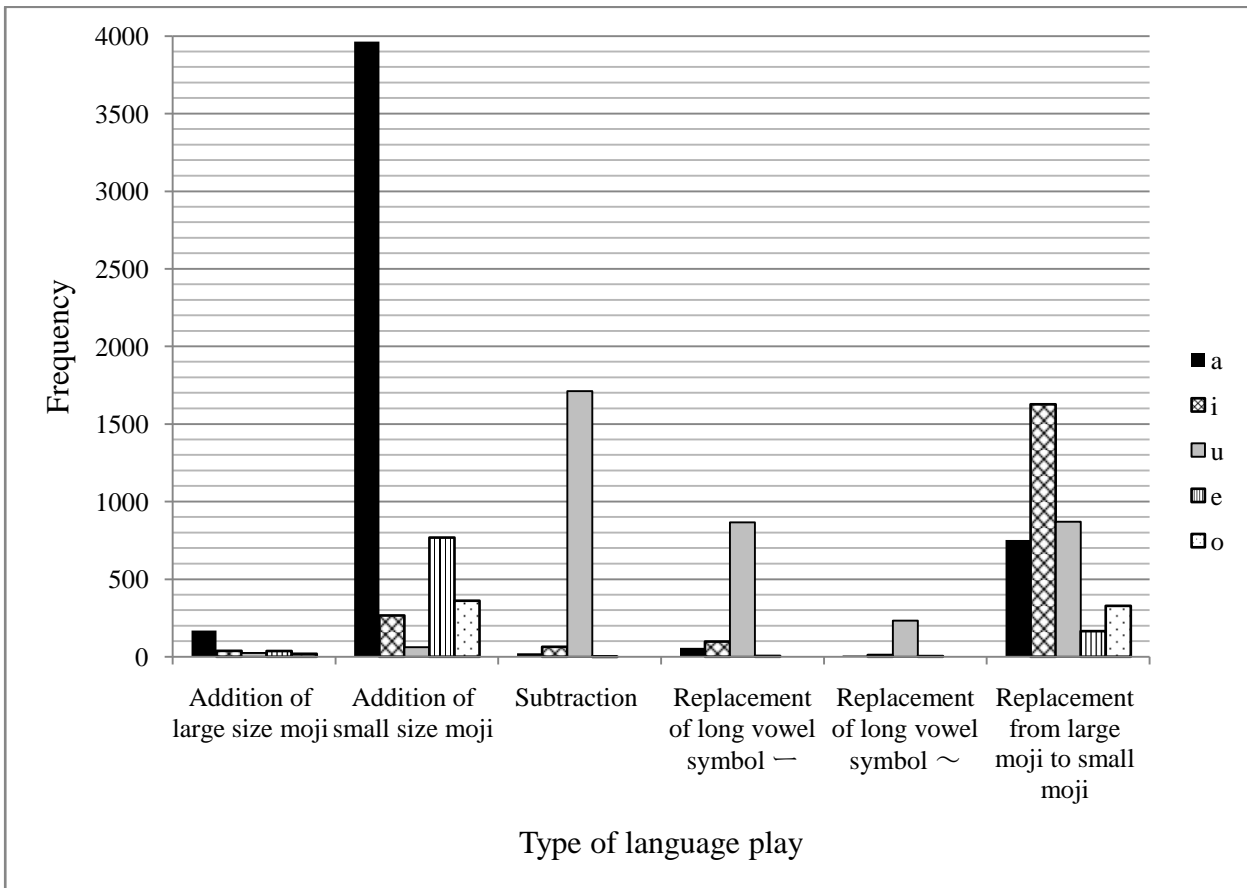
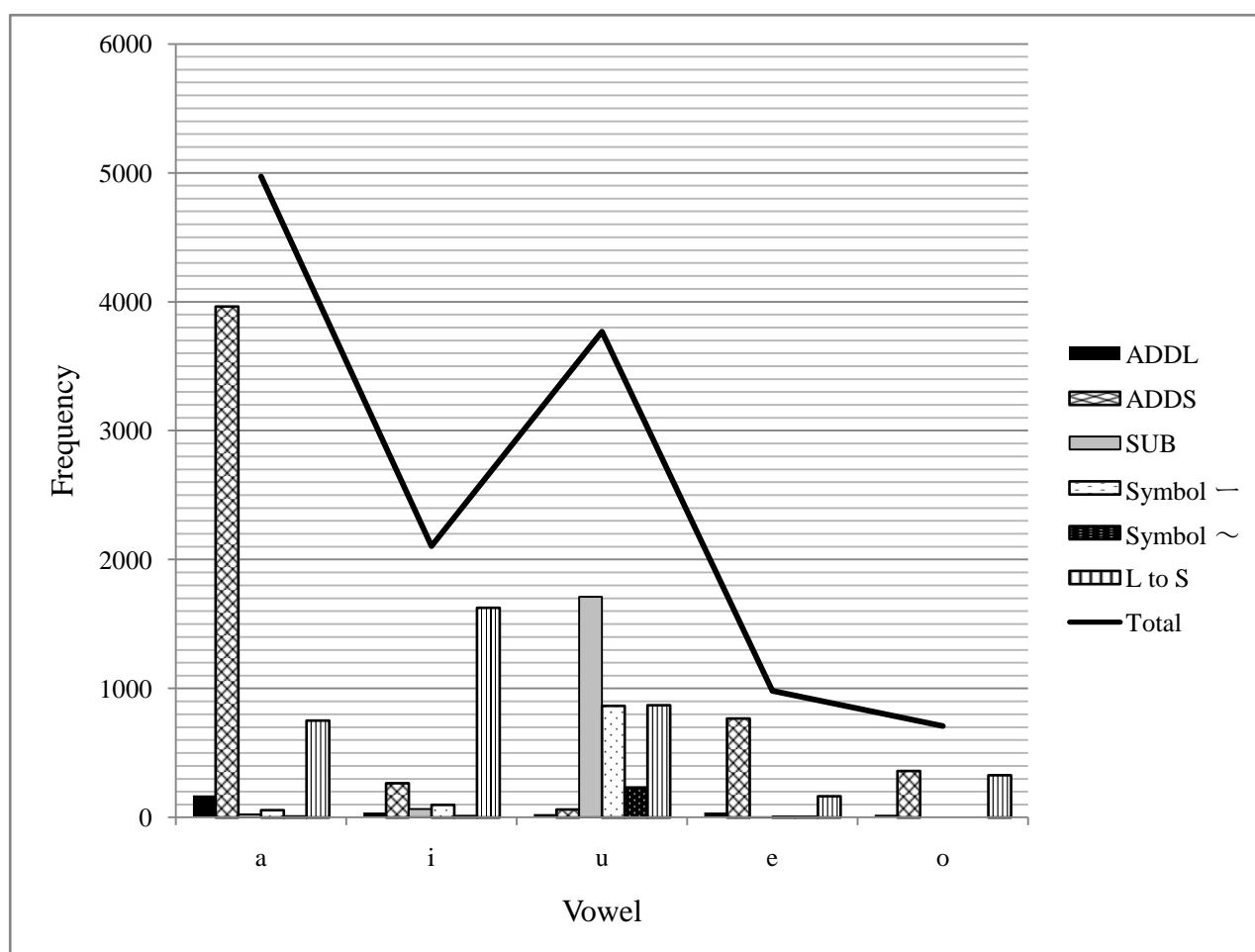


Figure 6.19 Each vowel and language plays



*Abbreviations.* ADDL: Addition of large size moji, ADDS: Addition of small size moji  
 SUB: Subtraction; Symbol ー: Replacement of long vowel symbol ー  
 Symbol ~: Replacement of long vowel symbol ~  
 L to S: Large moji (L) to small moji (S)

Figure 6.20 Total number of applications of language plays for each vowel

Looking at Figure 6.19, it is apparent that each form of LP tends to affect a certain vowel most. For instance, small moji addition occurs heavily with /a/, whereas subtraction can mostly be seen with /u/. Figure 6.20 depicts LP application for each vowel: the figure shows this tendency to apply a particular form of LP more clearly. In addition, Figure 6.20 also shows that LP are largely applied to /a/ and /u/, while on the other hand, /e/ and /o/ exhibit relatively small application of LP. As seen in Figure 6.18, LP application relates to manner of articulation to a certain extent.

#### *LP and manner of articulation*

The figures shown in the last section indicate the relationship between LP and manner of articulation. Even though Keitai-mail are written-based communications, this shows that sound information is a significant factor in written expression as well, as the following discussion shows.

Firstly, /e/ and /o/ have a relatively small number of LP applied to them. Both of these are *close-mid* vowels (see Figure 6.18). Close-mid position is close to the central position (where the /ə/ sound is generated) and is relatively easy for pronunciation. Because of this, /e/ and /o/ are not heavily influenced by LP.

As the opposite phenomenon to this, large to small replacements have a strong tendency to occur in high or low positions (i.e., /i/, /u/, and /a/). It may be the case that /a/, /i/, and /u/ require a firmer tongue position than /e/ and /o/, and small vowel replacement decreases the impression of burden in the production of the sound since small moji indicate a slight blurring of the sound. This means that changing into a small vowel gives the impression of decreasing the effort needed to pronounce these sounds through moving the tongue to a more decided position (not in the middle) and is preferentially applied to those vowels which have an associated burden in articulation.

Among these three vowels, this replacement is applied to /i/ and /u/ more than to /a/. The pronunciation of the close sounds of /i/ and /u/ requires a certain extent of interference. Kubozono (1999) explains /i/ and /u/ as vowels which have high consonant properties, meaning that they have more interference in the air current. Therefore this interference of the air current involves a certain lag in smooth articulation.

When texting, this tendency to slow down is more discernible than it is with speaking, since people cannot input as fast as they speak and unconsciously try to avoid a lack of smoothness through the platform available to them. This phenomenon of the reflection of unconscious phonological sense corresponds with other linguistic phenomena in adopting new forms of language which go beyond the existing Japanese language framework. For example, Peperkamp, Vendelin, and Nakamura (2008) argue that loanword pronunciations unconsciously reflect their manner of articulation in the original languages and this differentiates how each loanword is spelled even though the orthography of the original words in different languages is quite similar.

The impression of smoothness in pronunciation seems to be reflected in /u/, a *close back rounded vowel*. For the most part, /u/ is omitted or replaced by long vowel symbols. For reasons of subtraction, to pronounce /u/ would need the most effort compared to other vowels because of the position of the tongue, and it will be avoided. Replacement with long vowel symbols is explained by the same mechanism. When /u/ is replaced by long vowel symbols, pronunciation is taken to be a continuation of the sound of the vowel in the last moji, and it is not necessary to pronounce /u/. Therefore, when applicable, long vowel symbol replacements are preferred in order to indicate eased pronunciation.

As for addition, this pattern is applied most to /a/, followed by /e/. This can be explained by the fact that sounds generated with an open mouth are easily added to since these sounds are naturally prolonged, there being no or little air blockage in articulation. The small number of

applications to /i/ and /e/ can explained by the same reason as that pertaining to long vowel symbol replacements.

To sum up, the application of LP to vowels has a close relationship to manner of articulation when we observe the type of LP applied to each vowel. Keitai-mail are written-based media: information about sound, in theory, plays no role in their composition. However, sound information in fact has a significant impact on written composition as well as on speech and the strategies used in pronunciation are reflected in Keitai-mail through the available input system. Moreover, this phenomenon also provides strong evidence that the language of Keitai-mail is quite similar to spoken language and that people use Keitai-mail in this ‘spoken’ mode, by applying a typical phonological style which can be expressed using the framework of the Keitai input system.

## 6.6 Conclusion

This chapter has discussed those results from the data relating directly to aspects of language as mediated by orthography, highlighting in part certain differences from standard Japanese. The first three sections introduced the overall picture of Keitai-mail in terms of script use, including how each type of script is converted into a different type with a focus on Kanji. The latter two sections discussed how LP are applied in Keitai-mail. Keitai-mail are filled with irregular use of language stemming from the creativity of users, but applications of such creative language uses are limited, indicating that the uses of irregularity are controlled in order to maximise the information senders can add to texts. In addition, creative expressions are basically based on standard Japanese language regardless of whether this is done consciously or unconsciously.

## Chapter 7 Results (3): The influence of emotional factors

To further interpret the language of Keitai-mail, this chapter discusses the motives which underlie creation of texts in Keitai-mail communication. The key aspects examined in this chapter are the genres of messages and emoticons. ‘Genres’ here means an extended concept of the speech act, since composing texts is an intentional activity and genres are chosen based on what people want to convey. Therefore, genres are the first key concept in seeking the underlying motives in creating messages. Emoticons are symbols which add some emotional expressions, which add some emotional expressions, which includes emotion that senders actually feel and more indirect underlying motivations of senders as to how they would like to give an impression about their message or create a certain mood of interactions. The linguistic features of emoticons – as a means of punctuation and replacements for words – were discussed in Chapter 6; this chapter sheds light on more fundamental functions of emoticons, i.e., emoticons as emotional markers.

Based on these clues, interactional strategies are also investigated. Through choosing a combination of genres with the help of emoticons, people try to control the interaction on the basis of both relationship and occasion. This chapter further explicates the strategies appearing in the Keitai-mail texts collected, using in part CA criteria to interpret both textual and non-textual messages from the viewpoint of a sequence of exchanges between people.

### 7.1 Genres in Keitai-mail.

Genres are one of the criteria used in DA (as Fairclough points out) to interpret the meaning of texts, and this section focuses on how genres appear in Keitai-mail. It examines 1) how each genre occurs, 2) how many genres each Keitai-mail includes and 3) how often two or more genres co-occur, in the Keitai-mail collected.

#### *Occurrence of genres: Overall*

Firstly, the occurrences of each genre throughout the corpus are presented. For this study, 28 genres are recognised, as an extended categorisation of a study by Ling et al. (2005, p. 83). Ling’s original study has 18 genres, as discussed in Chapter 3. As Keitai-mail are longer and richer in content than SMS messages, this study extends Ling et al.’s categories in order to interpret messages more precisely.

Compared to Ling’s original categories, since Keitai-mail are filled with ‘creative messages’, this category is omitted and the categories of ‘future coordination’, ‘coordination of the day’, ‘personal information’, ‘suggestion’, ‘opinion’, ‘expectations’, ‘hope’, ‘greeting’, ‘notes on congratulations’, ‘calling interlocutor by name’ and ‘quotations’ are added. A brief description of

each genre is given here in order to understand the nature of the genre. For purposes of illustration, the 28 genres are also separated into five subcategories.

#### *Genres indicating that things happen along a certain timeline*

This subcategory includes expressions which state facts or plans that writers experience or believe will happen at a certain time.

- Near-future coordination: this is defined as “things that have already begun or will happen soon”; here, more concretely, ‘soon’ is defined as “within a few minutes (at best, 10 minutes maximum)”
- Middle-future coordination: this is defined as “things that will happen in the next hours or next day”
- Distant-future coordination: based on the ‘middle-future coordination’, distant-future coordination is defined as “things that will happen in two days or more”
- Coordination of the day: this deals with things happening on the day mails are exchanged; it encapsulates some aspects of near-future coordination and middle-future coordination.
- Future coordination: genres for messages stating things that will happen sometime, but “when that thing will happen” cannot be decided solely by the content of the message. In other words, the messages display some vagueness in stating the time when something will happen.
- Personal news: messages which speak about what has happened around the senders

#### *Genres related to messages intended to convey information to interlocutors*

This subcategory consists of messages in which writers intend to tell the recipient something.

- Questions : simply, the questions that message senders ask recipients
- Requests: requests include any type of messages through which senders try to cause recipients to do something, either by requesting or commanding
- Invitations: invitation here solely focuses on actual invitation messages in which the sender invites the recipient to some event/place
- Suggestions: messages which include information on what senders believe recipients should do
- Opinions: compared with suggestions, messages are tagged as opinions when the sense of eagerness to cause someone to do something is weaker. They are simple statements of what the writer believes.
- Short answers: this is an extension of ‘short one-word answers’. This study includes messages which answer questions/requests with only short messages. e.g., 「了解」(OK), 「大丈夫」(No problem)
- Greetings: salutations, such as 「おはよう」(Good morning) and 「こんにちは」(Hello/Good afternoon)
- Calling interlocutor by name: this refers to phrases which simply use the name of interlocutors (names within other genres are categorised into the other genres)
- Thank-you notes: messages expressing appreciation to recipients
- Congratulatory notes: messages which celebrate some success or something good to do with the recipients
- Apologies: Messages of apology

*Genres expressing information about message creators*

- Expectations: interpretations of something talked about in Keitai-mail (or simply guessed) by message senders
- Hopes (H): statements of something senders hope for in the future

*Genres introducing some types of information (to recipients)*

- Personal information: information about senders
- Information: information other than about the senders such as information on others or more general information
- Location information: information about a target place
- Safety issues: information cautioning the recipient about safety
- Quotations: messages consisting of others' words (including famous people/people around participants)

*Genres utilised as a mediator of communication*

This subcategory includes words or phrases used in creating a favorable communication atmosphere, or more simply, words or phrases for small-talk purposes.

- Grooming: this is defined as “messages giving compliments or engaging in small talk”
- Emotional grooming: grooming which underlies emotions of senders
- Jokes: jokes which impart a sense of humor in communication
- Sex-related jokes: jokes around sex and related matters

Some sentences can be categorised into two or more genres. In such cases, taking into account the speech acts and illocutional forces involved, the most likely interpretation is given. For example:

家に着いたら、暖房思いっきりつけて、暖めて下さい  
 [When you get home, please use a heater and keep warm]

This sentence is a reply to a message of small talk about how cold the day was. It could be a request, since the sender is asking the recipient to stay home and keep warm. However, it is normal in Japan to tell someone to keep warm when it is a cold day and whether the sender really wanted the recipient to follow the advice is not clear. In other words, what the sender wanted is not a central part of the message; they are more likely to be giving advice. Of course, this sentence might also occur if the recipient had caught a serious cold, but in a situation where details surrounding the available texts are not to hand, this interpretation carries the risk of overinterpretation. Therefore, this sentence is categorised as a suggestion. In cases where the available information includes more evidence, similar sentences can be interpreted as belonging to different categories based on the framework of discourse analysis.

For the whole corpus, each message is categorised according to these genres; the frequency of each genre within the corpus is illustrated in Table 7.1 (In the counting, since a change of message



sequence would increase the number of occurrences of a genre even though the message as a whole remains the same, this study only counts it once when a genre appears in a text. For example, “すみません遅れて申し訳ないです、今 PC に打ち込んでいるところです” [I’m sorry, I apologise for the delay, now I’m inputting to PC] can be written as “すみません、今 PC に打ち込んでいるところです、遅れて申し訳ないです。” [I’m sorry now I’m inputting to PC, I apologise for the delay.] By a simple counting from the beginning of the sentence, the first has a statement of apology [すみません遅れて申し訳ないです] whereas the second has two [すみません and 遅れて申し訳ないです.] if simply giving the genre phrase by phrase. However, these two have the same meaning in terms of textual level, so this study only counts once as a genre).

Table 7.1 Frequency of occurrence of each genre

Genres	Frequency	Proportion in the number of Keitai-mail (=Frequency/43,294)	Proportion in total occurrences
Questions	12,935	29.876%	12.491%
Requests	9,482	21.901%	9.157%
Short answers	6,865	15.856%	6.629%
Near-future coordination	6,658	15.378%	6.430%
Middle-future coordination	6,127	14.152%	5.917%
Suggestions	5,698	13.161%	5.502%
Information	5,634	13.013%	5.441%
Personal News	5,552	12.824%	5.362%
Greetings	5,528	12.768%	5.338%
Opinions	5,481	12.660%	5.293%
Apologies	4,924	11.373%	4.755%
Future coordination	4,762	10.999%	4.599%
Thanks notes	4,261	9.842%	4.115%
Personal information	4,036	9.322%	3.898%
Emotional grooming	3,408	7.872%	3.291%
Distant-future coordination	3,163	7.306%	3.054%
Grooming	3,081	7.116%	2.975%
Hopes	1,940	4.481%	1.873%
Expectations	1,724	3.982%	1.665%
Calling interlocutor by name	776	1.792%	0.749%
Location information	544	1.256%	0.525%
Notes of congratulations	499	1.153%	0.482%
Coordination of the day	241	0.557%	0.233%
Invitations	85	0.196%	0.082%
Quotations	55	0.127%	0.053%
Sex-related Jokes	51	0.118%	0.049%
Jokes	41	0.095%	0.040%
Safety information	2	0.005%	0.002%
Total	103,553		

The table shows that questions are the most frequently occurring genre in the data – one quarter of Keitai-mail includes some type of question. Next come requests, followed by short answers. Short

answers can be a simple or short response to questions and requests and it is reasonable to say that exchanges of questions-answers account for a large part of the communications.

Next come near-future coordination and middle-future coordination. It is natural for people to speak of what has just happened, is happening now, and will be happening in the near future. If the proportion of 'future coordination' and 'coordination of the day' are added into the calculation with near-future coordination and middle-future coordination, 17.2% of Keitai-mail messages include some information around the time of sending. Therefore, the result reflects this general tendency of communication.

The next three are greetings, apologies, and thanks. Approximately 10% of the Keitai-mail in the corpus incorporate a greeting, not such a great number, but because the corpus data include interactions, it can be predicted that greetings will be used as the opening words in exchanges in many cases. This tendency is discussed later in this chapter in detail. Information (including personal information) is also exchanged relatively often.

The genres listed above are equivalent to over 80% of total occurrences of genres throughout the corpus, and this indicates that people like to exchange messages about things around them in both time and space directly via Keitai-mail. For example, distant future-coordination, in other words things that will happen in two days or more, does not occur very often, even though there is much future information they can tell others. In addition, quotation – words from others –also does not appear often. The preponderance of the genres listed above shows the nature of Keitai-mail as a convenient communication tool regarding daily life.

Furthermore, looking at the genres participants choose, they seem not to go through some kinds of communication mediators such as emotional expressions and jokes in order to control the communication atmosphere. One reason for this is the continuous nature of Keitai-mail communication – several exchanges occurring in a single interaction – so that such communication mediators are less used as the interaction goes on. The other possible reason is the written nature of Keitai-mail – applying such communication mediators is demanding when creating a message, and people depend on other types of mediators (such as emoticons) to control the communication atmosphere. These possibilities are also discussed later in this chapter.

### *Number of genres in Keitai-mail*

This section discusses how many genres each Keitai-mail includes. Firstly, Table 7.2 presents the number of genres appearing in a single e-mail text. The results show that while about 34% of Keitai-mail involve just one genre, the other 66% consist of two or more genres. As befits this handy medium, the messages exchanged through mobile phone e-mail are basically quite simple messages which contain only one genre. E-mails containing 5 or more genres account for less than

10%. The average number of genres per message is 2.39. This suggests that Japanese senders often include several types of messages in a single e-mail, but do not overdo it.

Table 7.2 Frequency of the number of genres occurring in a text

Genres per text	Frequency	Proportion
1	15,112	34.905%
2	12,529	28.939%
3	7,263	16.776%
4	4,118	9.511%
5	2,181	5.038%
6	1,107	2.557%
7	543	1.254%
8	262	0.605%
9	104	0.240%
10	43	0.099%
11	23	0.053%
12	9	0.021%
13	1	0.002%
Total	43295	100.000%

This can be explained from the standpoint of the specifications and characteristics of Japanese mobile phone e-mail and the nature of communication using this medium. Specifically, while Japanese mobile phones can create longer messages than SMS, at the same time, mobile e-mail is used for relatively simple and handy communications. Therefore, many texts contain two or more genres but do not include too many genres since texts with too many genres require much effort and time in creation, despite the handiness of the medium.

The discussion in this section suggests that Keitai-mail is a handy tool for brief messaging, but also that people also apply combinations of genres in order to realise effective communication. Moreover, the result illustrates how Japanese culture, as well as strategies that can be seen in other language practices, is reflected in Keitai-mail.

#### *Co-occurrences of genres*

Over 65% of Keitai-mail includes two or more genres within a single message, and by calculating the number of patterns of genres appearing in each Keitai-mail, particular interactional tendencies among Japanese young people can be observed. To analyse this, the Kendall rank correlation coefficient is calculated (see Appendix C for all calculations) and the combinations with relatively high values ( $\tau > 0.1$  and  $\tau < -0.1$ ) are as follows:

#### *Positive correlation more than 0.1*

- Personal news and apologies (0.130)
- Thanks notes and future coordination (0.118)

- Suggestions and opinion (0.114)
- Opinion and expectation (0.114)
- Personal news and opinion (0.113)
- Request and greeting (0.111)
- Opinion and information (0.109)
- Opinion and future coordination (0.102)
- Request and personal information (0.101)

In the combinations listed above, personal news tends to appear together with other genres. This indicates that Japanese young people would like to say something more than just imparting news in these interactions. In addition, when they want to say something about the future, they also add the reasons why they think so. These combinations can frequently be seen in oral-based communication, and Keitai-mail have the capacity to include more messages naturally in the same way as oral communication.

In addition, some combinations suggest the reflection of Japanese culture in Keitai-mail. For example, the combination of greetings and requests can be explained in the following way. Making a request by itself, with no accompanying utterance of another genre, would be too direct and would cause a rude violation of Japanese manners, especially to people with whom the sender is not close enough. Therefore, instead of sending a message with just a request, senders first put a greeting statement before asking for something.

#### *Negative correlation less than -0.1*

- Questions and short answers (-0.162)
- Questions and requests (-0.123)
- Short answers and near-future coordination (-0.103)

Compared to the combinations showing highly positive correlations, combinations showing negative correlation are simple. As for the first one, questions and answers do not occur on the one occasion: in particular, short answers are used as simple replies without going into a long message. Therefore, this combination will be negatively correlated. Requests are basically a question as to whether a person agrees to something hoped for or not, and it is natural that people tend not to use the same type of messages at the same time. Short answers are responding to a question which asks about the close future of recipients' schedule, so near-future coordination is not expressed when messages already indicate a close future schedule through short answers.

## 7.2 Emoticons in Keitai-mail as an indicator of meanings beyond language

This section looks at emoticons again, this time focusing on their property of emotional indicator, the primary function of emoticons. Table 7.3 shows how many of each type of emoticon appear in the Keitai-mail in the data corpus: 114,695 emoticons in 43,296 Keitai-mail.

Table 7.3 Frequency of emoticons in terms of types

Type	Emoji	Kaomoji	Decome*	Total
Frequency	95,381	5,342	13,972	114,695
Proportion	83.16%	4.66%	12.18%	


*Note.* As mentioned in Section 1-4, because of specification matters, Decome on au mobiles cannot be backed up, so the number here is merely an indication.

Each emoticon has two possibilities in terms of its use: replacement of five types of Japanese symbols (i.e., technically, emoticons are used to have interlocutors see these pictures instead of Hiragana/Katakana/Kanji/Romaji/Arabic numerals) or just a simple attachment as a visual icon. In the latter case, emoticons give extra emotional or other information which goes beyond language itself, and the use of emoticons strongly reflects the users' intentions, whether consciously or unconsciously, since they choose to use emoticons as a part of their messages even though emoticons originally do not have a function as language. In other words, emoticons are used as substitutes for body language.

Chapter 6 distinguished these two functions so as to focus on language itself. However, the replacement function can also reflect users' emotions since they choose to replace normal symbols with emoticons. This section will therefore examine all the emoticons appearing in the data corpus from that perspective.

### *Emoji*

Of the three major types of emoticons in Japanese Keitai-mail, Emoji, or pre-installed picture symbols, account for a very large proportion of total emoticon use: more than 80%. Therefore, they are a major source of emotional indicators used in Keitai-mail

Table 7.4 exhibits how many Emoji are used from each Keitai carrier:<sup>49 50</sup> Docomo, SoftBank, and au. The table firstly shows the total number of occurrences of Emoji for each carrier. For example, 36,431 Emoji are from Docomo. In addition, Table 7.4 also shows the Emoji most used by showing the occurrences of each Emoji and its proportion in the total occurrences for each company. For instance,  is the fifth most used in Keitai-mail from Docomo phones: it appears 1,728 times, accounting for 4.743% of total Emoji occurrences from Docomo.














































<sup>49</sup> Emoji used in au showing facial appearances may be difficult to distinguish in Table 7.4. A short description of each Emoji is: Rank 1, happy face; 9, bashfulness; 17, smiley face; 18, shocking; 19, face with wink; 25, face indicating failure; 26 face with tear; 28, sadness; 31, puzzling; 33, face with heart-shaped-eyes; 36, kissing; 39, surprising; 41, tiredness; 44, disappointment; 48, exhaustion.

<sup>50</sup> See Footnote 43 (p. 90) in terms of the note of total occurrences of Emoji from each carrier.

Table 7.4 The total number and top 50 Emoji in Keitai-mail

	Docomo			SoftBank			au		
	36431			13016			45934		
1		2654	7.285%		1175	9.027%		3378	7.354%
2		2539	6.969%		1021	7.844%		3133	6.821%
3		2387	6.552%		676	5.194%		3061	6.664%
4		1728	4.743%		510	3.918%		2444	5.321%
5		1717	4.713%		483	3.711%		2277	4.957%
6		1711	4.697%		414	3.181%		2097	4.565%
7		1568	4.304%		395	3.035%		1897	4.130%
8		1303	3.577%		380	2.919%		1802	3.923%
9		1236	3.393%		361	2.774%		1762	3.836%
10		1033	2.835%		349	2.681%		1212	2.639%
11		929	2.550%		346	2.658%		1122	2.443%
12		817	2.243%		337	2.589%		1046	2.277%
13		787	2.160%		322	2.474%		977	2.127%
14		778	2.136%		302	2.320%		865	1.883%
15		773	2.122%		282	2.167%		747	1.626%
16		766	2.103%		258	1.982%		738	1.607%
17		738	2.026%		247	1.898%		680	1.480%
18		693	1.902%		245	1.882%		622	1.354%
19		620	1.702%		229	1.759%		589	1.282%
20		595	1.633%		226	1.736%		584	1.271%
21		587	1.611%		218	1.675%		571	1.243%
22		570	1.565%		214	1.644%		568	1.237%
23		523	1.436%		212	1.629%		553	1.204%
24		506	1.389%		200	1.537%		538	1.171%
25		501	1.375%		181	1.391%		523	1.139%
26		489	1.342%		172	1.321%		481	1.047%
27		467	1.282%		165	1.268%		464	1.010%
28		426	1.169%		149	1.145%		393	0.856%
29		381	1.046%		136	1.045%		389	0.847%
30		323	0.887%		127	0.976%		361	0.786%
31		301	0.826%		125	0.960%		351	0.764%
32		298	0.818%		122	0.937%		346	0.753%
33		287	0.788%		111	0.853%		296	0.644%
34		253	0.694%		103	0.791%		262	0.570%
35		251	0.689%		97	0.745%		257	0.559%

Table 7.4 (Continued)

	Docomo			SoftBank			au		
	36431			13016			45934		
36		250	0.686%		84	0.645%		223	0.485%
37		220	0.604%		76	0.584%		222	0.483%
38		214	0.587%		74	0.569%		219	0.477%
39		206	0.565%		71	0.545%		209	0.455%
40		161	0.442%		67	0.515%		186	0.405%
41		145	0.398%		65	0.499%		180	0.392%
42		144	0.395%		63	0.484%		175	0.381%
43		143	0.393%		62	0.476%		174	0.379%
44		142	0.390%		56	0.430%		162	0.353%
45		137	0.376%		54	0.415%		147	0.320%
46		132	0.362%		50	0.384%		145	0.316%
47		125	0.343%		49	0.376%		140	0.305%
48		122	0.335%		49	0.376%		136	0.296%
49		108	0.296%		43	0.330%		135	0.294%
50		103	0.283%		41	0.315%		135	0.294%

Across the three carriers, even though they have different sets of Emoji installed, users employ Emoji in a similar fashion. The top three are Emoji showing a splash of sweat (💦), shining (✨), and a happy face (😊).<sup>51</sup> The first expresses a feeling of panic; the second indicates something good; the last represents the emotion of happiness. After these three, a question mark (?), double exclamation mark (!!) and a combination of question and exclamation marks (!?) are often used. The frequent use of these emoticons can be attributed to the frequency of these forms of punctuation in general, but an interesting point here is that double exclamation marks are much preferred to a single exclamation mark (!) when double exclamation marks are available. This is evidence of Emoji's function as an emotional indicator since users choose Emoji to represent their feelings, here how very surprised they are. Other Emoji used frequently (ranking in the top 10) are: music notes (🎵), a heart mark (❤️), an upward arrow (↗️) and other types of happy faces (😊). The Emoji shown above indicate that users use Emoji which (in relative terms) represent some form of happiness or goodness, in addition to punctuation marks.

After that in the ranking come Emoji showing sadness or something bad, such as an unhappy face (😞) or a downward arrow (↘️), yet we also find further Emoji which indicate rejoicing of some kind, so that this tendency is continued. Therefore, it can be said that the most widespread

<sup>51</sup> The Emoji shown as examples are chosen for their readability when they are in the document and are therefore randomly selected from the three different carriers.

application of Emoji by users is to describe positive aspects of feeling. Other types of Emoji found in the ranking are information about a sunny day (☀️) and icons of mobile phones (📱) and e-mail (✉️). The former comes from a casual conversation and the latter are used to ask someone to call or e-mail them. Therefore, it is natural that people add these Emoji as a part of Keitai-mail texts.

The present study goes beyond the ranking of frequently used emoticons by Yasuhara et al. (2009) in that its data show that abstract Emoji are displayed more often than Emoji indicating more concrete meanings. However, both studies show similar sets of emoticon uses on the whole and this is supporting evidence that people use the same set of emoticons in their text composition.

In Table 7.4, several types of Emoji which carry different extralinguistic information are shown. At the same time, however, the Emoji frequently used are actually quite limited. Figures 7.1 and 7.2 illustrate how much each Emoji is utilised in the pre-installed Emoji sets. Figure 7.1 shows in visual form the proportion of Emoji use in Table 7.2, and shows that the first three exhibit a high proportion, and then the slopes decrease sharply until rank 10; after that the proportion is moderately decreased. This means that there are great differences in the occurrences of each Emoji. In particular, most Emoji are rarely or not used: the right side of Figure 7.2 shows that Emoji ranked below 50 are very few in number (actually less than 1%) and soon reach almost 0.

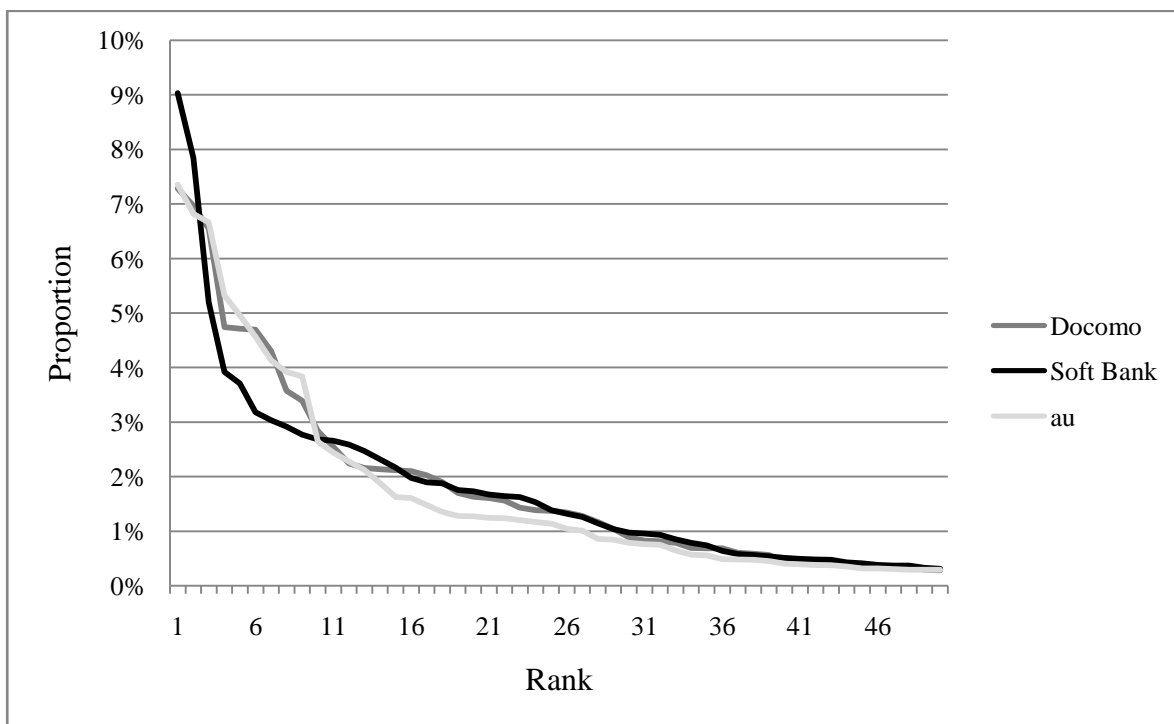


Figure 7.1 The proportion of each Emoji use (Top 50)



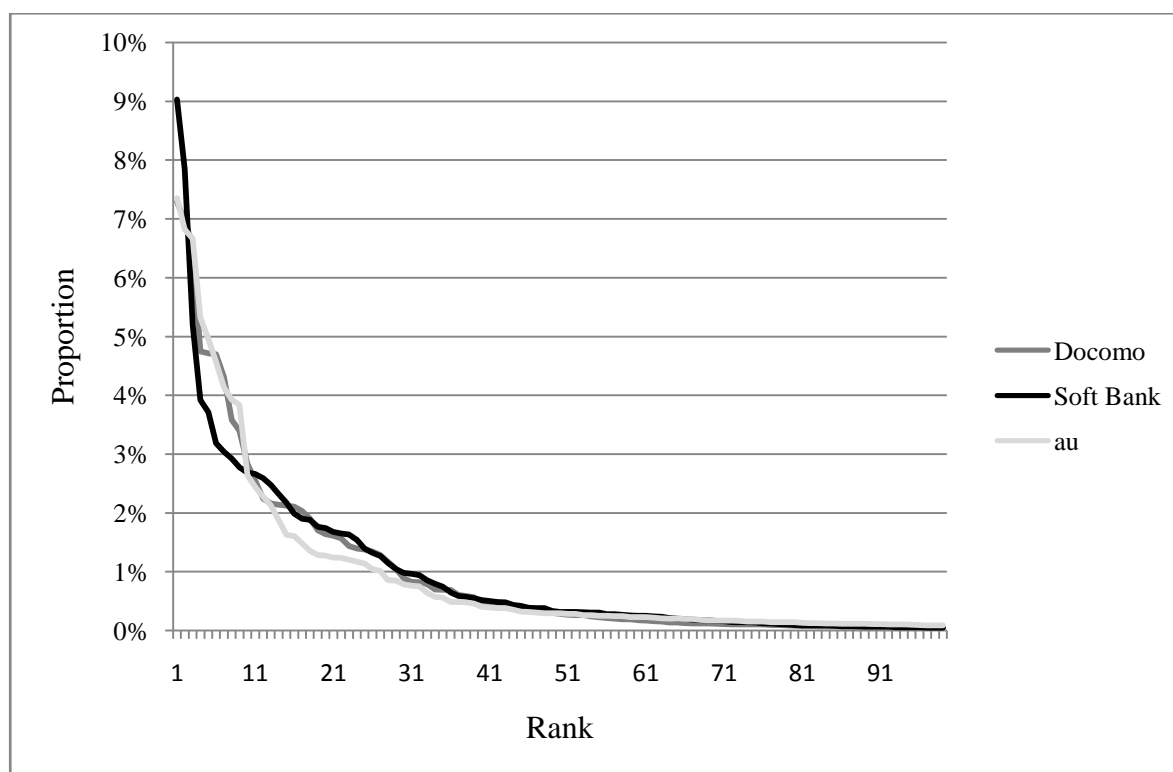


Figure 7.2 The proportion of each Emoji use (Top 100)

To sum up, Emoji use has several characteristics:

- Emoji with positive meanings are much more often used than those with negative meanings
- Emoji punctuation marks are also used often
- People use several particular Emoji frequently and many other Emoji do not show much uptake

### *Kaomoji*

There are 5,342 Kaomoji in 605 patterns in the data corpus. Table 7.5 shows the top 20 Kaomoji: other than the first four, each pattern only occurs less than 2%, with Kaomoji ranked below 18th at less than 1%. In addition, when we look at the Kaomoji ranked 2nd and 3rd, or 5th and 6th, there are only very slight differences between them: the two are the almost same. Therefore, the Kaomoji most often used are very limited in number – small variations with a minor change in pattern.

As with the Emoji tendency shown previously, Kaomoji representing happiness are used very often in Keitai-mail. A particular characteristic here is that users often employ a Kaomoji showing a ‘bow’ (m(\_\_)m), which accounts for around 20% of Kaomoji use. The reason for the high frequency of occurrence of this one is that bowing is expected when asking for something or showing appreciation, and users express this in their Keitai-mail. At the same time, Emoji do not have an icon which can represent this as effectively as Kaomoji, so the use of this Kaomoji (m(\_\_)m) naturally increases, for cultural and technical reasons.

Table 7.5 Top 20 Kaomoji in Keitai-mail

Rank	Kaomoji	Frequency	Proportion
1	(*_*)	616	11.53%
2	m(__)m	544	10.18%
3	m(__)m	483	9.04%
4	(>_<)	344	6.44%
5	(*^^*)	100	1.87%
6	(*^_^*)	91	1.70%
7	(^_^*)/	89	1.67%
8	(^_^)/	86	1.61%
9	(*^o^*)	71	1.33%
10	(^O^)/	71	1.33%
11	^^*	68	1.27%
12	(^_^)	64	1.20%
13	^^	60	1.12%
14	( ^ ∇ ^ )	59	1.10%
15	(^O^)	57	1.07%
16	(T_T)	56	1.05%
17	( ^ · ω · ^ )	55	1.03%
18	(*^_^*)	53	0.99%
19	(*'д`*)	46	0.86%
20	o(^_^)o	43	0.80%

Another interesting aspect is that one Kaomoji (>\_<) is used often, but its interpretation is not straightforward. Some interpret this as a representation of happiness while others see it as a reflection of sadness (crying). The context of the message usually enables users to interpret this as the sender intends, but sometimes miscommunication occurs since this Kaomoji has two opposite interpretational possibilities. In other words, it may happen that use of Kaomoji transmits unintended emotional messages, and this can cause confusion when the possible interpretation of a particular Kaomoji is not suitable to the given setting.

### *Decome*

Because the system does not enable users to backup au mobiles' Decome, I will here discuss Decome only briefly. There are 13,972 Decome in the Keitai-mail from Docomo and SoftBank mobile phones. Decome function mainly as a replacement for Emoji: the difference is only between pre-installed or downloaded. Compared to 47,206 occurrences of Emoji in Keitai-mail from Docomo and SoftBank, the number of Decome is approximately 30% of that. Therefore, Decome is

still more optional and not as popular as Emoji so far. This can be attributed to the extra burden in using them and to the fact that sufficient Emoji are provided for expressing emotion in general use.

### *Emoticons and their occasions of use*

Emoticons are used to carry extra information, and frequent use of emoticons in Keitai-mail indicates their effectiveness in the communication: one small extra input transmits a great deal of information. At the same time, the tendencies discussed in this chapter show that emoticons need to be used under particular conditions to maximise their message.

As shown above, emoticons which entail positive meaning are used frequently. An Emoji indicating panic ranked high in frequency, but this also suggests that although use of this Emoji indicates some physical/emotional problem is present at the time of messaging, it is not meant to be taken particularly seriously by the recipient. Therefore, users choose this icon instead of emoticons which indicate greater sadness or confusion. In addition, emoticons actually describing such seriousness are not often used. Therefore, people believe that emoticons are not effective in serious matters or even that Keitai-mail themselves are not suitable to discussing such matters.

### 7.3 Keitai-mail communication and underlying motivations

This section discusses how young people perceive Keitai-mail communication based on their answers to the questionnaire. Firstly, following on from Section 6.1, how young people use emoticons in their communication is examined. Figure 7.3 illustrates the extent to which they include emoticons in Keitai-mail (Question 4-3a “Do you frequently use emoticons?”) and shows that participants, particularly female participants, use emoticons frequently in their texts.

The questionnaire asks why participants use emoticons and with what intention; answers can be separated into several categories. The first reason is to add some emotional expression. It is difficult to convey these emotions through language alone, and emoticons (as their name shows) are effective devices for displaying emotion or nuances to the recipient of the message through a visually transparent method. In other words, emoticons are used as a substitute for the facial expressions used when communicating in person. In addition, some respondents mentioned that the number of emoticons reflects the strength of their feelings: if they use two or more emoticons at a time, this means they are expressing strong feeling.

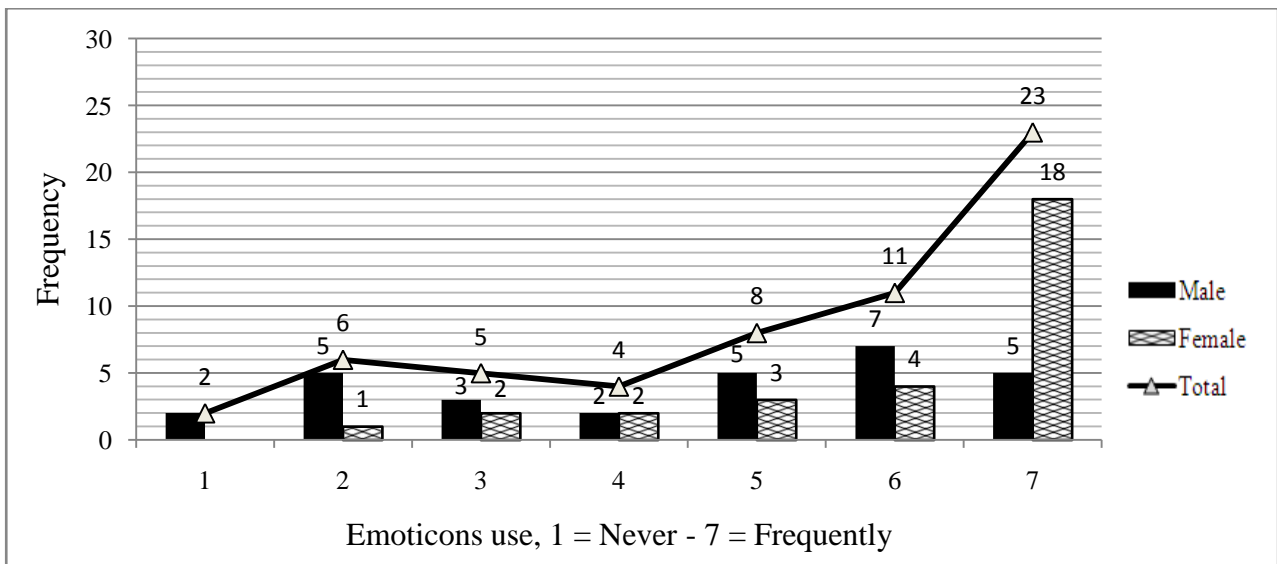


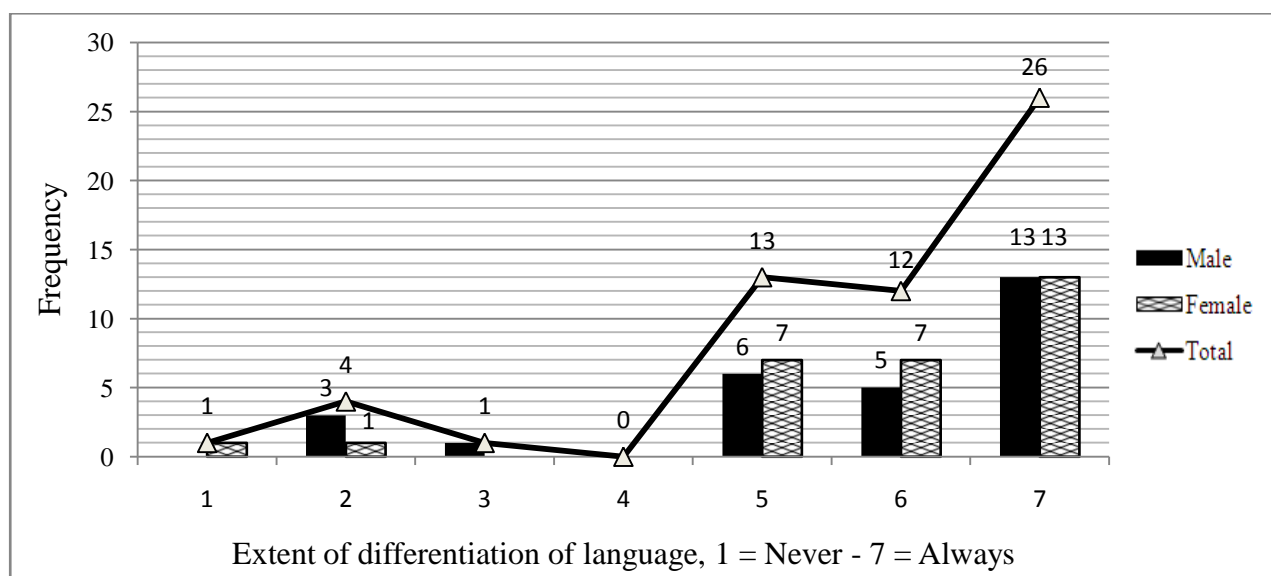
Figure 7.3 Frequency of use of emoticons

The other major reason is to change the impression of the text to make it soft, cheerful and cute-looking. The application of emoticons gives an overall atmosphere which influences the whole impression of a Keitai-mail. This means emoticons have a function beyond conveying the feeling or message each emoticon indicates; their role is greater than their original meaning.

The questionnaire also shows that the use of emoticons is a reflection of friendliness and closeness. At the same time, not to use emoticons gives an impression of coldness and lack of motivation in communication; some people feel that to receive Keitai-mail without emoticons makes them feel as though the sender hates them. Therefore, emoticons also function to control the relationship between senders and recipients.

In addition to emoticons, other decorative symbols and expressions are also used in the same way (Question 4-4b), and these too reflect clear intentions. In summary, emoticons and other decorative symbols function to convey feelings, to change the impression of the whole text, and to control the distance between interlocutors. Therefore, these symbols are important communication devices in Keitai-mail which go beyond language, and people intentionally use them for effective communication in maximizing information in Keitai-mail.

To illuminate further the aspect of Keitai-mailing in relation to interlocutors, the questionnaire also asked about participants' intentions in choosing the register used based on who their interlocutors are. Figure 7.4 shows answers to this question and provides evidence that participants do change their expressions in Keitai-mail in relation to different interlocutors, as can be seen from the high average score of 5.8 (Male=5.71, Female=5.90).



Note. This figure is from Question 4-6a “Do you change the language or expressions of your e-mail texts based on who will receive them?”

Figure 7.4 Extent of differentiation of language in Keitai-mail based on interlocutor

This can be seen in Keitai-mail which are on the same topic but are sent to different interlocutors. The following CA (in terms of underlying psychological analysis) is a sequence of Keitai-mail in which the sender (female) informs a series of different recipients about a farewell party and asks whether the interlocutor(s) can attend it (the texts are presented in chronological order).

A くん、B くん、おはようございます🍀昨日は再度日程を聞かせてもらうメールをしました。実はC組が再調整しても来れないことになりました。👥4人一緒にできなくて、残念だけど、予定通り、8日（金）でいきたいと思います🌟お二人とも大丈夫かな？当日までに、何かあれば、遠慮なく私まで連絡下さい🙄Z

[A-kun\*, B-kun, Good morning🍀I sent a mail for reconfirmation of schedule. . . C couple cannot make it even if we try to have another adjustment.👥I am sorry that all four of you cannot meet together, but we'd like to have [the farewell party] on the 8th (Friday) as per the original plan🌟Both of you can make it? If you have any questions before the meeting day, please don't hesitate to contact me🙄Z\*\*]

\*kun: title for males in relatively close relationship \*\*Z is anonymous form of sender's name

D—おはよう🙄昨日は E ちゃんと会ってたらしいね👏ふふ情報ゲットしちゃった（笑）壮行会なんだけど、結局空き日程変わらずだったので、8日で決行したいと思います!!! ちなみに参加者はF組のGくん&Hくん🍀当日までに色紙とかできたらいいねー♥6日の夜に買い物できたらベストだわー🌟Jと一緒に選んでもらうことになるかもだけど.. (..)

[D— Good morning🙄You met E yesterday, didn't you👏haha, I heard it lol as for farewell party, because everyone's schedule is not changeable, we have it on the 8th!!! Participants will be G-kun and H kun in F group🍀It would be good if we can make a card by the farewell party♥I think it is the best if we can go shopping at night on the 6th🌟I will ask J to choose together. . (..)]

K オハ一👋今日の△△飲み来る？8日の○○壮行会来れる？

[K, Gdmornin一👋Do you come today's △△? Can you come ○○ on the 8th 一?]

L くん👋久しぶり一&おはよ一👋8日の○○壮行会は参加できますか一？

[L-kun👋 Long time no see一&Goodmornin'一👋 Can you make time for ○○ on the 8th 一?]

M ちゃん👋久しぶり一&おはよ一👋8日の○○壮行会は参加できますか一？

[M-chan👋 Long time no see一&Goodmornin'一👋 Can you make time for ○○ on the 8th 一?]

\*chan: title for females in relatively close relationship

N くん👋おはよ一👋8日の○○壮行会は参加できますか？たしかバイトだったよね

[N-kun👋Goodmornin'👋Can you make time for ○○ on the 8th? I think you will have your part time job then👋]

In this exchange, the first two mails are long, followed by three short texts. This means the mails she first sent required consideration as well as actual input effort. Therefore, it can be seen that she likes to create those texts which she needs to spend time on creating first. In addition, the first mail and the second mail are different in nature: the first one is composed to sound polite, with more formal language, whereas the second one is full of casual expressions. This provides further evidence that she prioritised sending the text which needed careful planning to a person from whom she has relatively more distance. Moreover, the Emoji which exhibit a smile are differently used: the first one has 😊 and the second 😄. Compared to the first one, the second one implies a clearer emotion of happiness. In the Japanese sense, showing clear emotions indicates a relatively close relationship. She thus has a closer relationship with the interlocutor of the second mail than the first, and her use of emoticons, even though subtly, reflects the conservative nature of language use to the person who is less intimate. This usage of Emoji can be also seen in the fifth mail that also includes the clearer smile Emoji 😄.

Comparing the morning greetings used in the five texts, the first uses the most formal one おはようございます /o ha yo u go za i ma su/; the second has a short version おはよう/o ha yo u/; the third オハ一 is written in Katakana with a long vowel symbol, the most distinctive of the five; the last three Keitai-mail use おはよ一, basically the same as the second one, but with the last vowel う changed to a long vowel symbol ー. This indicates an interesting motive in Keitai-mail composition, as follows. The first mail is the most careful composition to the least intimate of the target senders. Then the content becomes casual. However, interestingly, the third is the most casual and then the sender uses a bit of formal writing. This can be interpreted as that, firstly the last four Keitai-mail have the same pattern (styles), and in a situation when she sends texts with a similar

pattern, she chooses the closest friend as her first interlocutor who sends a message because of its ease of text creation of intimacy, then she writes a little more formal Keitai-mail to those who are less close. The degree of closeness is also reflected in how they address interlocutors such as by title or just by name.

This example shows that people change their register of language and emoticon use (styles, particularly body-language and phonological aspects (LP)), as well as the topic (representation of social events) included in a single mail, based very clearly on who their interlocutor is, even when sending Keitai-mail with similar content or intention. The questionnaire results show that people use different language in the context of the following major relationships:

- Seniors/Same age and juniors
- Men/Women
- Boyfriend/Girlfriend
- Family
- Close friends/others

As is the case with other forms of communication, people use Keigo when communicating with their seniors. They also use fewer or no emoticons. This shows that emoticons are still regarded as informal or impolite language and as not proper in communication requiring polite expression. Some thought that the register used to send a message to seniors using polite language is similar to that used in communication by PC. This indicates that although PC e-mail and Keitai-mail both use electronic media, the perception of each type of communication and message creation is different, showing that Keitai-mail have a style of their own.

The second difference, that between men and women, is also interesting. Both male and female participants indicated that they put more thought into the content of their messages when sending to females rather than males, which is reflected in the different use of emoticons as well as in the language used itself. This point will be further discussed in Chapter 8. Thirdly, for boyfriends/girlfriends, people tend to create decorated mail, particularly with heart marks or emoticons indicating love; the content itself also reflects their closeness.

For the fourth point, people create very frank and plain messages for their family members, which for the most part include few or no emoticons, and this phenomenon can be explained through the fifth difference in messaging to close friends or others. Generally, people use emoticons and other methods of decoration in creating messages to their friends, and they tend not to do so when they send a message to those who are not so familiar to them. This can be seen in messages to

their seniors, who are usually less close than their friends. At the same time, interestingly, people tend to create simple mails when sending to those with whom they have a close relationship, in particular family members. Therefore, a particularly close relationship is regarded as a relationship in which people do not need to include decorative symbols in Keitai-mail and they create a very simple message in these cases.

On this point, whether someone likes their interlocutor or not also influences emoticon use and content. If they dislike an interlocutor, they create simple, plain messages which indicate their unwillingness to communicate as well as their tiredness in texting (in the expectation that the interlocutor will intuit their dislike through the text). This reflects unwillingness to take extra effort in creating the message as well exemplifying the finding that Keitai-mail without emoticons give an impression of coldness or anger to recipients.

Analysing the different patterns of message creation and the sample texts shows that people use expressions differently in texts, particularly emoticons and other methods of decoration, based on who their interlocutors are, and that this intentional use is a reflection of the relationship as well as even acting to control the relationship. Emoticons and other decorative symbols are thus used as distance and politeness markers in texts and play an extralinguistic role in controlling the relationship with interlocutors.

On another aspect of underlying motives in Keitai-communication, Table 7.6 illustrates how participants reply when they receive Keitai-mail through their answers to Question 3-5 “How do you respond when you receive e-mail? Please choose one of the statements from 1 to 6 which shows the most similarity to your opinion. If you choose 3, please further choose from a to f”.

No general tendency can easily be determined in this result, but the timing of a reply is related to the following three elements: whether or not participants are free to do so at that moment, senders and content (important or easy). Most of the participants are influenced by at least one of these elements, and this can be said to be one of the basic underlying motivations in replying to Keitai-mail, or a perception of the conversational nature of Keitai-mail related to turn-taking.



Table 7.6 Replying practice of participants

Item	Male		Female		Total	
	F	S	F	S	F	S
1. I reply to e-mail immediately all the time except in extreme special circumstances.	3	0	2	0	5	0
2. I reply to e-mail immediately all the time if I am free.	6	0	9	0	15	0
3. I choose whether I reply immediately or not based on senders or content of e-mail.	16	0	13	0	29	0
a. I reply immediately if the content is very important.	15	0	12	0	27	0
b. I reply immediately if the content of e-mail is easy to reply.	8	0	9	0	17	0
c. I reply immediately if I receive e-mail from my close friends.	6	0	4	0	10	0
d. I reply immediately if I receive e-mail from seniors or my boss, those who have a higher position in society.	10	0	7	0	17	0
e. I reply immediately if I receive e-mail from my family.	2	0	3	0	5	0
4. I generally reply immediately not based on the content or sender, but based on how easy the content of the e-mail is to reply to.	1	0	9	0	10	0
5. I do not worry about anything, and just decide whether I reply or not based on my feelings or the situation.	3	0	2	0	5	0

*Abbreviations.* F: Frequently; S: Sometimes

To further explore their perceptions of Keitai-mail use, Table 7.7 illustrates what kinds of perceptions participants have of Keitai-mail communication (Question 3-7, “What kind of impression do you have of communication through mobile phone e-mail? (Check all that apply)”.)

Table 7.7 Participants’ impressions of Keitai-mail

Item	Male		Female		Total	
	A	P	A	P	A	P
1. Communication by mobile phone e-mail is easy.	18	0	20	0	38	0
2. I can reply carefully because I can spend time to do so.	14	0	10	0	24	0
3. Mobile phone e-mail is convenient for small talk.	23	0	25	0	48	0
4. I can say what I tend to hesitate to say in person or by a phone call (such as to apologise) through mobile phone e-mail.	7	1	10	0	17	1
5. I find it easier to ask something by e-mail than face-to-face or in a phone call.	6	1	3	0	9	1
6. I can communicate more with people through e-mail.	5	0	14	0	19	0
7. I feel that the relationship with close friends is weak since we can communicate by mobile phone e-mail.	3	0	4	0	7	0
8. I tend to be emotional when communicating by mobile phone e-mail more than in person or in a phone call.	0	0	2	1	2	1
9. I feel anxiety or irritation when the reply does not come back immediately.	9	0	10	1	19	1
10. I feel sorry if I don’t reply immediately when I receive e-mail.	8	1	9	2	17	3

*Abbreviations.* A: Agree; P: Partially agree

Many participants feel that Keitai-mail communication is easy (Item 1) and convenient, particularly for small talk (Item 3). In addition, some feel that Keitai-mail enable them to communicate better (Item 6). At the same time, this type of communication causes concern for some (Items 9 and 10).

Many perceive Keitai-mail as an easy communication tool, which at the same time enables them to convey messages which sometimes they hesitate to say in person (Items 4 and 5), so that Keitai-mail are used for more serious messages. On this point, Figure 7.5 shows what sort of important messages participants send via Keitai-mail (Question 3-8a “To what extent do you speak of important matters in mobile e-mail?”)

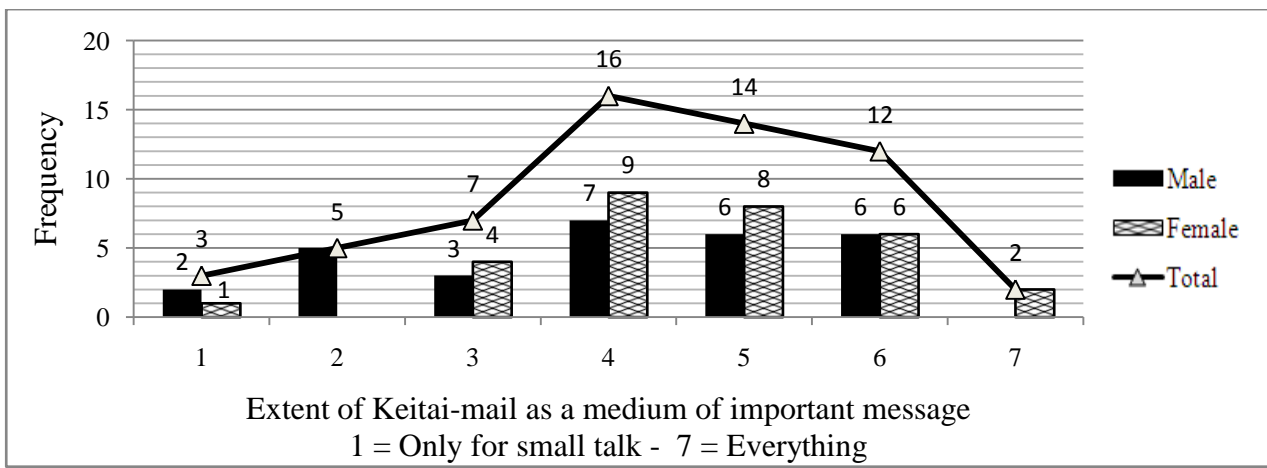


Figure 7.5 Keitai-mail as an acceptable medium for important messages

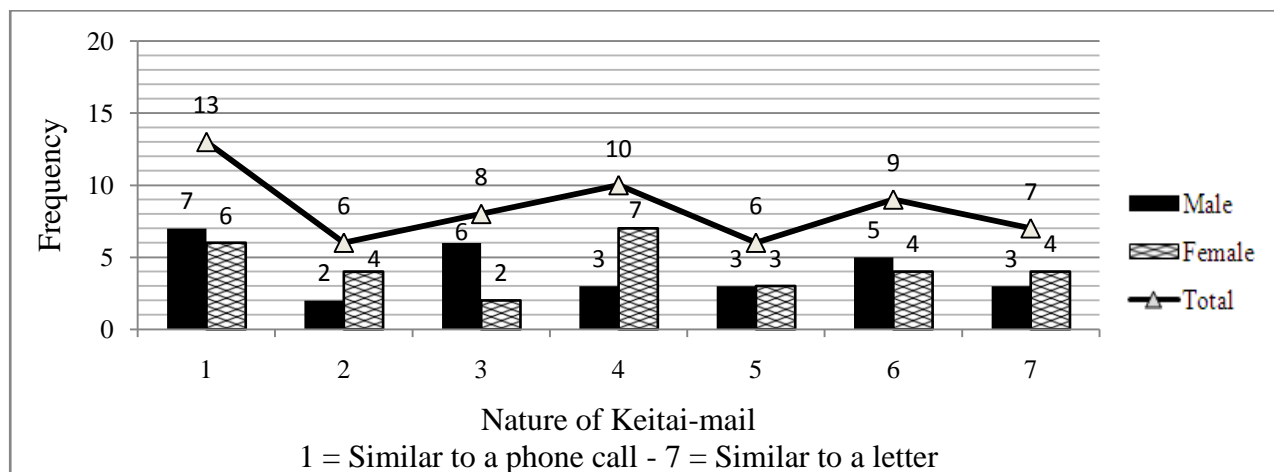
This chart indicates that even though Keitai-mail are not suitable for saying everything, many of the participants use them to send relatively important messages. An open question (Question 3-8b, When you use or don't use Keitai-mail) also gives a perspective on this point: as the figure shows, the level of important messages they send varies, but one general trend seen in the answers is that if messages are important, they prefer to use a phone call rather than Keitai-mail. Moreover, Keitai-mail are sometimes used as a second follow-up choice when interlocutors do not take their call. Keitai-mail have thus not yet overtaken the position of a phone call but instead extend the communication since they send/receive messages which are not so significant and would not have been exchanged via previous media.

The reason participants use Keitai-mail and phone calls in this way is that Keitai-mail are useful in easy and convenient communication such as arranging a meeting or in casual communication. At the same time, people also have a perception of Keitai-mail as easy and convenient, so that messaging via Keitai-mail is not regarded as serious or urgent. Sometimes use of Keitai-mail for important matters can be regarded as rude. Therefore, people avoid using Keitai-mail for highly serious and significant communication in order to notify their interlocutors that the communication is intended to be serious. On the other hand, they utilise the convenience of

Keitai-mail for their part of the communication and this is also preferred over a phone call in non-serious communication.

To seek an overall perception of Keitai-mail as a medium, Question 3-10a asks “Which do you think communication via e-mail is more similar to: communication by letters, or a phone call?”

Figure 7.6 represents answers.



Note. Average: Male=3.67, Female=3.83, Total=3.76

Figure 7.6 The nature of Keitai-mail

As the average scores show, participants tended to perceive the nature of this communication as similar to a phone call, but the answers are distributed and the perception depends on each person's opinion. Participants who feel Keitai-mail are relatively like a letter point out that both Keitai-mail and letters are written communications and use moji. On the other hand, those who perceive Keitai-mail as relatively like a phone call focus on the seamless property of communication they offer. These perceptions reflect the characteristics of Keitai-mail and a difference in their focus may account for the difference in their evaluations.

One particular opinion on this question illuminates the difference between paper-based letters and Keitai-mail. Technically, the difference between these two is that one is electronic-based and the other is not, but some respondents mention that letters are ‘heart-filled’ communications which are very much considerate of the recipients, whereas Keitai-mail are too easy in comparison.

This indicates that even Japanese young people hold a special perception of paper-based letters and that Keitai-mail, even though referred to as electronic-based ‘letters’, have not achieved the position of being considered a suitable medium for deep communication.

To summarise this section, I here introduce the answers on the questionnaire to the open question of how participants feel about Keitai-mail communication. Basically, the general trends in their answers show the same tendency discussed above: they point out the convenience of Keitai-mail as an easy communication medium. Respondents also mention that they sometimes feel that Keitai-mail have become a chore in terms of input as well as expectations for a quick response

in certain situations. The fact that a cell phone is a portable communication device gives a sense of connection over physical distance, but at the same time, they also feel they are always open to interruption in comparison to the time they spend without Keitai-mail. Another opinion is that connection via Keitai-mail decreases real connection with people and that this tendency will become more apparent in the near future. Keitai-mail therefore have a complicated influence on communication among Japanese people and these properties of Keitai-mail call for particular communication strategies for effective communication.

#### 7.4 Conclusion

This chapter has focused on psychological influences on the language of Keitai-mail. The analysis of genres as a reflection of intended message shows that Keitai-mail are, corresponding with the general perception, mainly used for communication relating to close spatial or temporal surroundings. As emotional conveyers, emoticons are actively used, but the Emoji and Kaomoji actually used are limited even though cell phones come with a large set of pre-installed templates; this shows that people use them in a particular pattern. Finally, the expressions used in Keitai-mail vary based on the interlocutors, making Keitai-mail a heavily context-dependent communication medium.

## Chapter 8 Results (4): Influences of social roles and society on the language of Keitai-mail

Chapter 7 discussed the personal motivations involved in the creation of messages. This chapter, on the other hand, investigates social factors influencing the language of Keitai-mail, i.e., it focuses on Keitai-mail users in their social context. First, the relationship between the language and gender, age (generation) and occupations (social roles) is discussed since these are regarded as the major factors in differentiating language and ways of expressing oneself (e.g., Hibiya, 1996; Holmes, 1998; see Chapter 2). Second, to exemplify an aspect of Keitai-mail use as a cultural practice, New Year greeting exchange is analysed. Finally, young people's perspectives on the Japanese language itself are discussed in order to investigate how they view language overall and how this underlying sense is reflected in Keitai-mail practice. The term 'difference' here is used in a general sense to distinguish groups of people rather than in Fairclough's sense which focuses on the different ways in which different people are presented in textual descriptions.

### 8.1 The influence of gender on the language of Keitai-mail

This section focuses on gender differences in Keitai-mail. Table 8.1 gives averages for how much young people use the various components of Keitai-mail depending on who their interlocutor is. When calculating word length, proper names and specific personal information are counted as one moji. For example, 'Noboru Sakai' is counted as one moji. Table 8.1 shows that 7,761 Keitai-mail were exchanged between males, and on average, these consisted of about 32 moji with 1 emoticon, so that 31 moji were input in a single Keitai-mail. Table 8.1 also notes that genders of senders and recipients could not be determined in 7,441 Keitai-mail; the following discussion of gender differences does not incorporate these gender-indecisive Keitai-mail.

Table 8.1 Keitai-mail exchange in terms of gender

Direction	Frequency	Length	Number of moji	Emoticons
Male to Male	7,761	31.56	30.64	0.91
Male to Female	7,295	39.08	36.71	2.37
Female to Male	6,192	41.41	38.62	2.80
Female to Female	14,606	50.55	46.70	3.85
Unknown	7,441	37.37	35.30	2.07
Total	43,295	41.64	39.02	2.62

#### *Length*

Looking at the exchanges in terms of gender (see Figure 8.1), the averages of length are

different: females create longer Keitai-mail than males do, and people send longer Keitai-mail to females than to males.

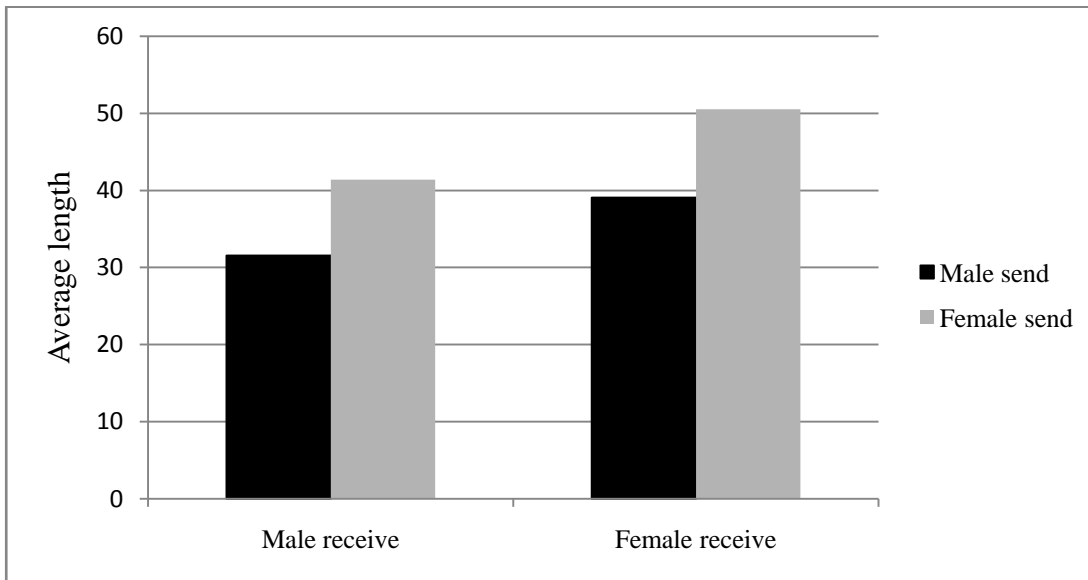
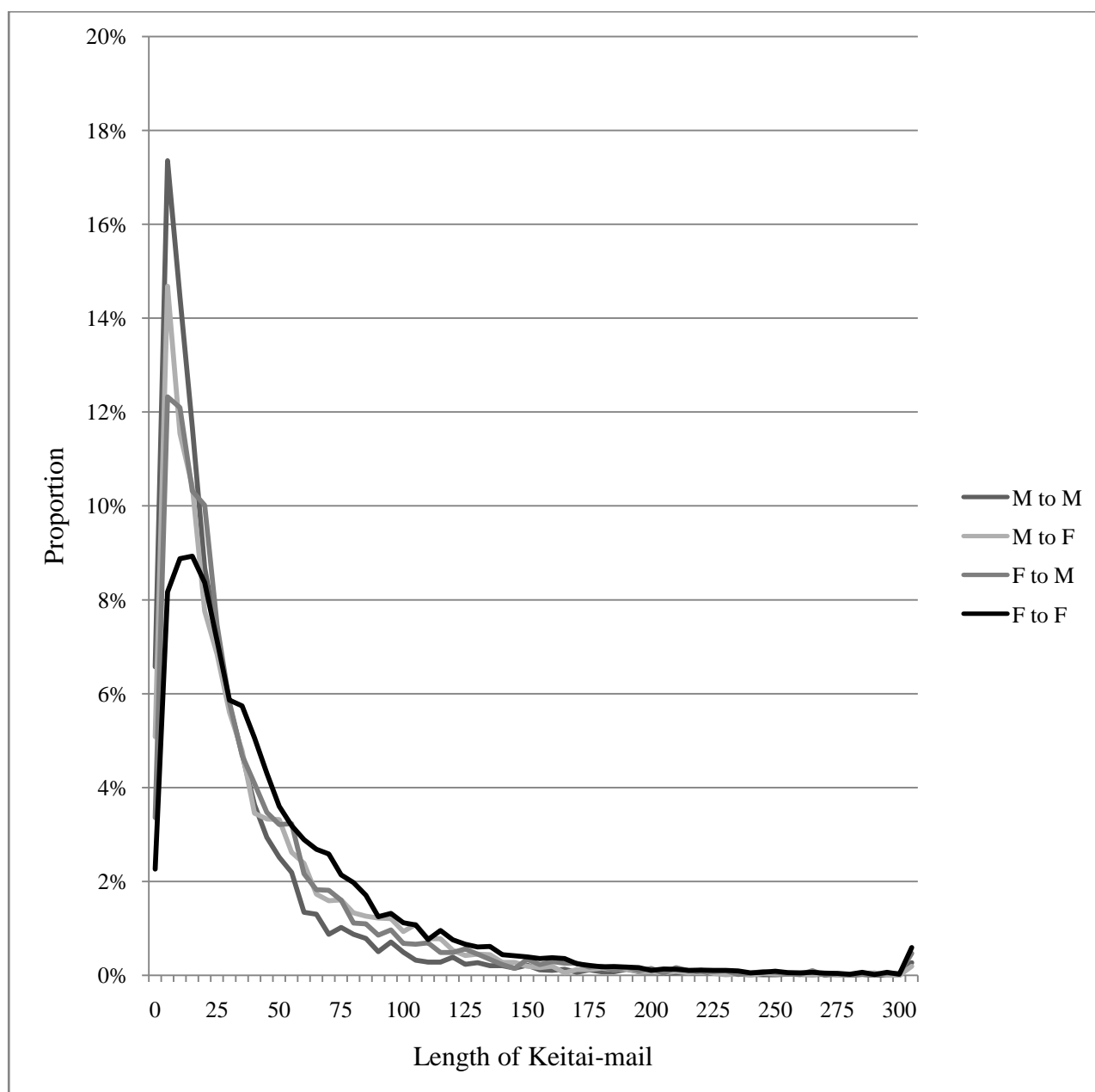


Figure 8.1 Average length of Keitai-mail in terms of gender

To evaluate whether the differences shown above are meaningful, the Kruskal-Wallis test was conducted to measure whether group differences are found in average length. In statistical tests, the group of ‘unknown’ was excluded. The result of the Kruskal-Wallis test is  $p < 0.001$  (see Appendix C for detail), and we can conclude that the length of Keitai-mail is different among the four groups. After the determination of overall significance, the differences shown in each group were further evaluated using the Steel-Dwass test,<sup>52</sup> and the average length of messages sent between genders in both directions is shown  $p < 0.001$  (e.g., the length of Keitai-mail which males send to males and to females, or the different mean length between the group of male to male (31.56) and group of male to female (39.08), is statistically significant).<sup>53</sup> This means that the average length is different if the genders of senders and recipients are different. The average number of moji used in a Keitai-mail also shows gender differences other than the combination between male-to-female and female-to-male exchange (in the direct sense, the difference in these two groups is approximately 1.9 and seems not particularly different when compared to other combinations). To show the overall tendency of length in each Keitai-mail, Figure 8.2 illustrates the proportion of length in each direction.

<sup>52</sup> In later, when the results of the Steel-Dwass test are presented, I do not also mention that the Kruskal-Wallis result also suggests statistical significance, since the Steel-Dwass test is conducted once significance has been established by the Kruskal-Wallis test as the case above.

<sup>53</sup> The results of the Steel-Dwass test are omitted in the main text other than in places where the exhibition of results is important to understanding a discussion, because of space considerations. A full set of results is shown in Appendix C.



*Abbreviations.* M: Male, F: Female

Figure 8.2 Length of Keitai-mail

The highest point of this graph is 17.36% marked at the Keitai-mail length of 5 to 10 on the line showing male-to-male exchanges. This line shows an acute increase and decrease around this paramount position; the bend of the curve becomes more moderate as the length increases. This tendency is seen in all four exchange patterns: each line exhibits a similar shape. In addition, the difference of length among the four directions can be seen in this graph. The female-to-female direction scores higher in the place represented by longer texts. For example, 2% of the female-to-female direction is Keitai-mail with around 80 moji whereas Keitai-mail with 60 moji account for 2% of the male-to-male direction. The average length of Keitai-mail is 41 moji, not particularly long.

The average length found in this study is much shorter than the average Tochiyama (2010) reports. However, her study requested participants to include three types of messages in a text and it is reasonable to conclude that those conditions led to a longer average of composition than that of the present study, which covered a wide range of Keitai-mail exchanges including short text exchanges of one-genre compositions. At the same time, the difference between men and women corresponds in the two studies, and this gender difference is salient as a common phenomenon.

*The different use of the five basic Japanese scripts*

Tables 8.2 and 8.3 summarise how each type of script appears in Keitai-mail by gender. Table 8.2 shows the actual number of occurrences in Keitai-mail and Table 8.3 illustrates the proportion of how many times each symbol appears. For example, 57,596 Kanji are shown in M to M Keitai-mail. Since the total number of moji is 244,958 used in male to male Keitai-mail, Kanji accounts for 23.63% ( $=57,596/244,958$ ). The presentation of proportion would affect how Keitai-mail in each direction contain each type of script. Figure 8.3 is a visual representation of Table 8.3.

Table 8.2 The occurrence of each type of symbol in terms of direction of exchange

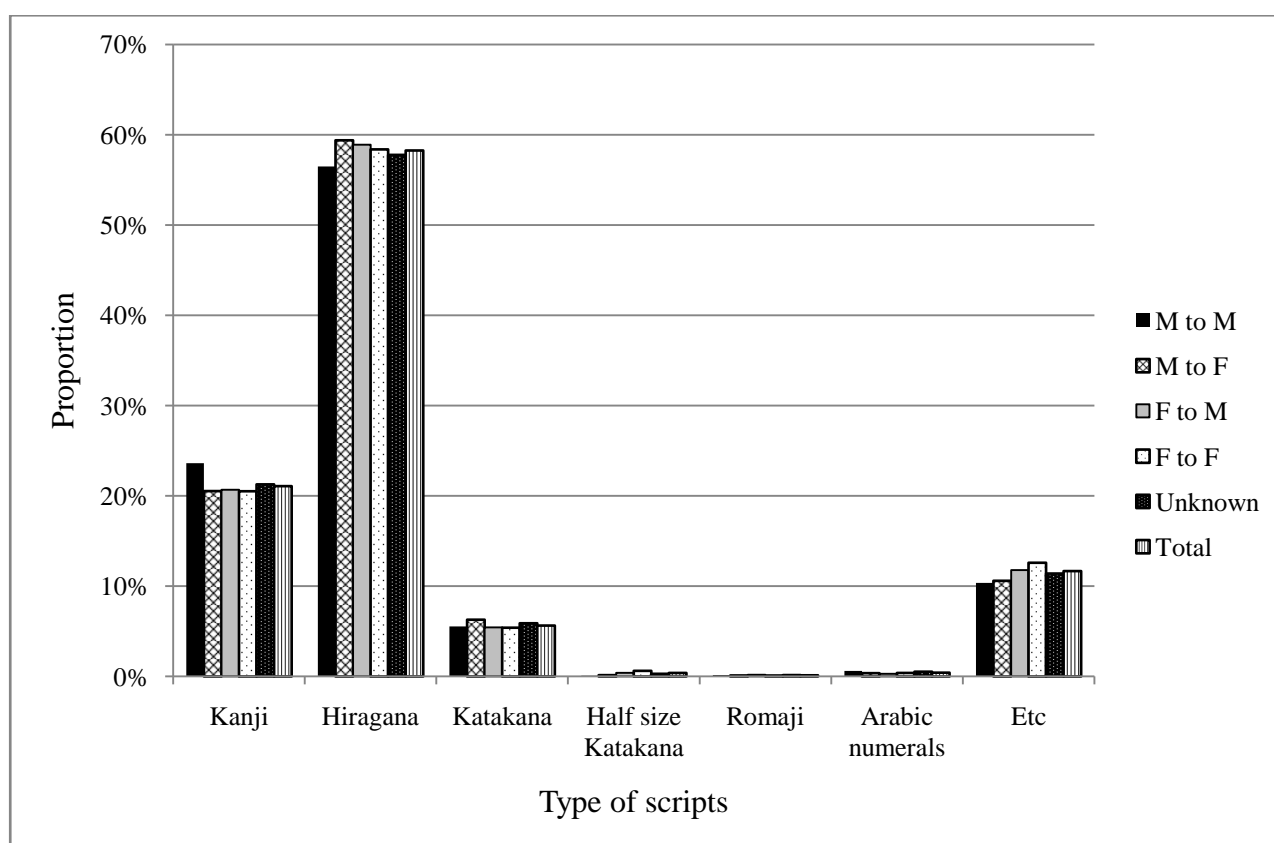
	M to M	M to F	F to M	F to F	Unknown	Total
Kanji	57,796	58,481	52,952	151,297	59,232	379,758
Hiragana	138,146	169,129	150,833	430,555	160,829	1,049,492
Katakana	13,503	17,906	13,923	39,825	16,404	101,561
Half-size Katakana	207	413	987	4,591	818	7,016
Romaji	379	312	411	776	422	2,300
Arabic numerals	1,452	1,040	710	2,871	1,469	7,542
Etc	25,354	30,183	30,121	92,882	31,739	210,279
Total	244598	284759	256129	737,403	278,354	1,801,243

*Abbreviations.* M: Male, F: Female

Table 8.3 The proportion of each type of symbol used in Keitai-mail

	M to M	M to F	F to M	F to F	Unknown	Total
Kanji	23.63%	20.54%	20.67%	20.52%	21.28%	21.08%
Hiragana	56.48%	59.39%	58.89%	58.39%	57.78%	58.27%
Katakana	5.52%	6.29%	5.44%	5.40%	5.89%	5.64%
Half size Katakana	0.09%	0.15%	0.39%	0.62%	0.29%	0.39%
Romaji	0.16%	0.11%	0.16%	0.11%	0.15%	0.13%
Arabic numerals	0.59%	0.37%	0.28%	0.39%	0.53%	0.42%
Etc	10.37%	10.60%	11.76%	12.60%	11.40%	11.67%





*Abbreviations.* M: Male, F: Female

Figure 8.3 The proportion of each type of symbol used in Keitai-mail

Table 8.3 shows that males tend to use Kanji in sending Keitai-mail to males, while in other directions they use more Hiragana. Katakana are used in Keitai-mail sent to women. This would suggest that Katakana have an image of, or are used as a symbol of, femininity. This specifically can be found in Tables 8.2 and 8.3 which show the interesting phenomenon that the highest ratio is found in male-to-female exchanges. In other words, men use Katakana to send Keitai-mail to women much more than to men, but at the same time, the proportion is higher than the Katakana use by women, so it can also be said to be a crossover pattern. That is, the perception by males that women's preference is for using Katakana in Keitai-mail leads to marked use of Katakana by males when writing a text to females, and this reflects their underlying wish to create a good Keitai-mail exchange using the language women seem to prefer.

Moreover, half-size Katakana are much used in Keitai-mail sent by women. Half-size Katakana have a LP property since they require extra input effort, and women may use them to decorate Keitai-mail for their eye-catching effect. This indicates that Katakana are manipulated by women in their compositions, and the preference for using half-size Katakana to female interlocutors also infers a femininity image for Katakana since they regard application of this input-demanding script in their exchanges as leading to interlocutors' positive responses, otherwise they would not undertake the extra effort.

In terms of Hiragana and Katakana, the results of the present study conflict with Tochiyama (2010), but since the present study analysed Keitai-mail exchanged in situations outside Tochiyama's setting, this counter-result is not a critical issue in considering the overall tendency of Keitai-mail composition.

These characteristics show that males tend to seek communication effectiveness in language itself – Kanji are short and content-heavy - whereas females tend to apply communication strategies that go beyond mere efficiency of language. Hiragana or half-size Katakana are less efficient in creating a message as well as in understanding the content through purely linguistic interpretation, but their intentional use can also articulate extra layers of meaning such as emotions or atmosphere.

### *Use of emoticons*

Table 8.4 includes the average number of emoticons used in Keitai-mail. This suggests that while male-to-male Keitai-mailing includes only about one emoticon on average, female-to-female Keitai-mailing uses about four types of emoticons. The Steel-Dwass test is calculated as  $p < 0.001$ , and therefore emoticons are used differently by males and females.

Table 8.4 shows details for each emoticon used in Keitai-mail. For instance, 45,945 Emoji were used in Keitai-mail exchanged between females; 41,823 of these were used just as pictures and 4,122 as replacements. Since 14,606 female-to-female Keitai-mail were found, the average use of Emoji in this corpus is approximately 3.15

Table 8.4 Use of emoticons in terms of type

		①	②	③	④	⑤	⑥	⑦	⑧
Male to	F	5,744	440	6,184	265	11	276	613	7,073
Male	<i>M</i>	0.74	0.06	0.80	0.03	0.00	0.04	0.08	0.91
Male to	F	14,204	1,348	15,552	1,095	61	1,156	556	17,264
Female	<i>M</i>	1.95	0.19	2.13	0.15	0.01	0.16	0.08	2.37
Female to	F	13,547	1,132	14,679	1,814	225	2,039	609	17,327
Male	<i>M</i>	2.19	0.18	2.37	0.29	0.04	0.33	0.10	2.80
Female to	F	41,823	4,122	45,945	7,667	1,000	8,667	1,619	56,231
Female	<i>M</i>	2.86	0.28	3.15	0.53	0.07	0.59	0.11	3.85
Unknown	F	12,134	802	12,936	1,655	163	1,818	647	15,401
	<i>M</i>	1.63	0.11	1.74	0.22	0.02	0.24	0.09	2.07
Total	F	87,452	7,844	95,296	12,496	1,460	13,956	4,044	113,296
	<i>M</i>	2.02	0.18	2.20	0.29	0.03	0.32	0.09	2.62

*Abbreviations.* F: Frequency, ①Emoji as a picture, ②Emoji as replacement, ③Emoji total

④Decome as a picture, ⑤Decome as replacement, ⑥Decome total, ⑦Kaomoji, ⑧Total

Table 8.5 also shows tendencies of emoticon use, indicating the proportion of each emoticon (=mean length/average number of emoticon uses). People use more Emoji and Decome if senders/recipients are females. For Kaomoji, the differences are not obviously clear and are evaluated by the Steel-Dwass test. Table 8.6 shows the result of the Steel-Dwass test, which suggests that comparisons between 1) male-to-male and male-to-female exchanges and 2) female-to-male and female-to-female mailing do show statistical significance. In other words, for the other combinations, although simple subtraction only differs less than 0.001, if the number of Keitai-mail in each exchange is considered, the proportion shows a meaningful difference in analysis.

Table 8.5 Proportion of use of each emoticon

Direction	Emoji	Kaomoji	Decome	Total
Male to Male	0.0253	0.0025	0.0013	0.0288
Male to Female	0.0545	0.0020	0.0041	0.0606
Female to Male	0.0572	0.0024	0.0080	0.0676
Female to Female	0.0623	0.0022	0.0117	0.0762
Unknown	0.0466	0.0024	0.0064	0.0554
Total	0.0528	0.0022	0.0077	0.0629

Table 8.6 Steel-Dwass test for Kaomoji comparison

Comparison	<i>p</i>
M to M and M to F (senders are males)	0.119
M to M and F to M (recipients are males)	0.012*
M to M and F to F (exchange within gender)	<0.000**
M to F and F to M (exchange between gender)	<0.000**
M to F and F to F (recipients are females)	<0.000**
F to M and F to F (senders are females)	0.953

Note. \*  $p < .05$ , \*\*  $p < .01$  Abbreviations. M: Male, F: Female

The result can be interpreted as showing that both males and females do not differentiate in their Kaomoji use based on recipients. This is interesting in that other emoticons Emoji and Decome are used differently depending on recipients, and indicates that Kaomoji are not gender-specific emoticons in terms of their image. When we consider the property of Kaomoji as combinations of pre-installed scripts, it is natural that people do not attach them continuously in a row – only one Kaomoji is applied between/at the end of sentences, otherwise the texts would be too messy.

To sum up: females create longer Keitai-mail with more emoticons than males; people tend to create longer and more decorative Keitai-mail when the recipients are female. Gender of recipient is therefore a significant factor since females receive longer and more decorative Keitai-mail than

males. These results in general correspond with Tochihara (2010), further suggesting that the tendencies of emoticons use by different genders have a certain common pattern.

### *Genres and gender differences*

In addition to the different usages of moji and emoticons, the genres appearing in the Keitai-mail also show some differences among the four directions. Table 8.7 exhibits the occurrences and proportion of each genre in Keitai-mail in terms of direction of communication. For example, there are 14,886 short answers, equivalent to 1.918% of total male-to-male Keitai-mail.

Basically, genres are differently applied when senders and recipients are different genders (i.e., most comparison using statistics shows statistical significance), and the discussion below therefore points out the genres which are common to each combination of the four directions.

Table 8.7 Occurrences and proportion of each genre based on Keitai-mail exchange directions

Direction		SA	F	N	M	TD	D	A	T	G
Male to Male	F	1,394	561	951	1,025	19	401	747	589	745
	M	0.18	0.07	0.12	0.13	0.00	0.05	0.10	0.08	0.10
Female to Male	F	1,031	722	1,331	936	31	364	533	480	903
	M	0.14	0.10	0.18	0.13	0.00	0.05	0.07	0.07	0.12
Male to Female	F	751	571	1,226	778	39	318	643	440	797
	M	0.12	0.09	0.20	0.13	0.01	0.05	0.10	0.07	0.13
Female to Femal	F	2,332	2,124	2,218	2,421	115	1,529	2,098	1,946	2,088
	M	0.16	0.15	0.15	0.17	0.01	0.10	0.14	0.13	0.14
Unknown	F	1,357	784	932	967	37	551	903	806	995
	M	0.18	0.11	0.13	0.13	0.00	0.07	0.12	0.11	0.13
Total	F	6,865	4,762	6,658	6,127	241	3,163	4,924	4,261	5,528
	M	0.16	0.11	0.15	0.14	0.01	0.07	0.11	0.10	0.13

*Abbreviation.* F: Frequency

[SA] Short answer [F] Future coordination [N] Near-future coordination

[M] Middle-future coordination [TD] Coordination of the day [D] Distant-future coordination

[A] Apologies [T] Thanks notes [G] Greeting

Table 8.7 (Continued)

Direction		PI	I	Q	I	S	O	R	Groomg	E
Male to Male	F	692	872	2,123	25	612	544	1,727	376	312
	M	0.09	0.11	0.27	0.00	0.08	0.07	0.22	0.05	0.04
Female to Male	F	589	911	2,202	9	957	1,259	1,335	746	547
	M	0.08	0.12	0.30	0.00	0.13	0.17	0.18	0.10	0.07
Male to Female	F	723	827	1,896	4	639	923	1,260	533	583
	M	0.12	0.13	0.31	0.00	0.10	0.15	0.20	0.09	0.09
Female to Femal	F	1,415	2,150	4,623	32	2,601	2,067	3,440	991	1,446
	M	0.10	0.15	0.32	0.00	0.18	0.14	0.24	0.07	0.10
Unknown	F	617	874	2,091	15	889	688	1,720	435	520
	M	0.08	0.12	0.28	0.00	0.12	0.09	0.23	0.06	0.07
Total	F	4,036	5,634	12,935	85	5,698	5,481	9,482	3,081	3,408
	M	0.09	0.13	0.30	0.00	0.13	0.13	0.22	0.07	0.08

[PI] Personal information [I] Information [Q] Questions [Inv] Invitation [S] Suggestions  
 [O] Opinions [R] Requests [Groom] Grooming [E] Emotional grooming

Direction		C	E	H	SRJ	J	L	PN	Quo	IN
Male to Male	F	54	148	138	18	7	100	641	40	13
	M	0.01	0.02	0.02	0.00	0.00	0.01	0.08	0.01	0.00
Female to Male	F	53	349	297	15	23	70	963	1	41
	M	0.01	0.05	0.04	0.00	0.00	0.01	0.13	0.00	0.01
Male to Female	F	56	260	241	2	12	59	861	1	68
	M	0.01	0.04	0.04	0.00	0.00	0.01	0.14	0.00	0.01
Female to Femal	F	236	754	1,018	1	5	217	2,244	10	545
	M	0.02	0.05	0.07	0.00	0.00	0.01	0.15	0.00	0.04
Unknown	F	100	213	246	5	4	98	843	3	109
	M	0.01	0.03	0.03	0.00	0.00	0.01	0.11	0.00	0.01
Total	F	499	1,724	1,940	41	51	544	5,552	55	776
	M	0.01	0.04	0.04	0.00	0.00	0.01	0.13	0.00	0.02

[C] Notes of congratulations [Ex] Expectations [H] Hope [SRJ] Sex-related jokes [J] Jokes  
 [L] Location information [PN] Personal news [Quo] Quotation  
 [IN] Calling interlocutor by name

*Note.* ‘Safety information’ is found in only one male to male and one female to male message.

#### *Sending by Males*

- Middle-future coordination
- Distant-future coordination

- Coordination of the day
- Thanks note
- Personal information
- Information
- Invitation
- Congratulations
- Sex-related jokes
- Location information
- Calling interlocutor by name

When the senders of Keitai-mail are male, Keitai-mail include the topics above in a similar proportion regardless of whether the recipient is male or female. Senders informed males of their plans in a similar manner, as was also the case when sending messages of congratulations or thanks. An interesting feature here is that men included information-related messages for both male and female senders to a similar degree, and this is an example of the fact that the focus of communication by men is on information exchange even in Keitai-mail.

#### *Sending to Males*

- Middle-future coordination
- Distant-future coordination
- Apologies
- Thanks note
- Congratulations
- Jokes
- Location information

Keitai-mail to males include these seven genres without large differences in occurrence. The genres are mostly the same as the genres included in Keitai-mail sent by males. However, genres related to information are not found in this type of communication; men received Keitai-mail discussing information from females, meaning that even though men are seen as the gender who focus on information in communication, females introduce information more than males. This can be interpreted as showing that women impart information about daily life more actively than men do.

#### *Sending by Females*

- Coordination of the day
- Information
- Questions
- Invitation
- Opinion
- Emotional grooming

- Sex-related jokes
- Quotations

Keitai-mail sent by females have the following property in common regardless of the recipients' gender: similar occurrences of 'emotional grooming' can be highlighted as a part of communication with a female, which is focused on exchange of emotional messages compared to mail sent by males.

#### *Sending to Females*

- Invitation
- Expectations
- Quotations

When females receive Keitai-mail, these three genres are used in a similar proportion whether senders are males or females. Since there are only three genres which appear in a similar manner, males and females tend to vary their message considerably when the recipients are female.

#### *Mailing between genders*

- Future coordination
- Near-future coordination
- Middle-future coordination
- Distant-future coordination
- Coordination of the day
- Thanks notes
- Greeting
- Information
- Questions
- Invitation
- Requests
- Congratulations
- Expectations
- Hope
- Jokes
- Location information
- Personal news
- Quotations
- Calling interlocutor by name

This comparison aimed to discover whether males and females vary their topics when exchanging mail with interlocutors of the other gender. The list above suggests that the genres found in Keitai-mail in both directions are basically similar and that communication itself displays a broad commonality between males and females.

*Mailing within genders*

- Personal information
- Invitation
- Requests
- Jokes
- Location information

These five genres are found to a similar degree in Keitai-mail exchanged between the same gender. Personal information can be disclosed easily if the gender of recipients is the same. Invitation and request also show the same tendency, because these actions can occur with a similar frequency in communication between people of the same gender.

Genres used in the texts are different based on the senders' and recipients' gender. Males and females show different trends in creating Keitai-mail messages and they also have different images of what kinds of content are more suitable to include in a message based on their interlocutor's gender.

## 8.2 The influence of age and social role

This section discusses how age and social role affect the content of Keitai-mail. Social role in this study indicates the difference between 'students' or 'workers', which has a strong connection with age since most of the population continue their education after graduating from high schools and most of the younger generation belong to a group of students (20/26=80% in this study, which is higher than the general public rate of 77.6% higher education entrance rate in 2009, as reported by the Ministry of Education, Culture, Sports, Science and Technology). Some exceptions do exist (i.e., younger workers, and older students who are mainly studying at postgraduate level), but their main communication interlocutors are the same or nearly the same age group, most of whom belong to the majority group, and people in the exception groups show similar tendencies in language practice because of the influence of belonging to the same age group. Therefore, this section discusses these two factors together.

For the data analysis, this study assumes that although interlocutors belong to different groups, 1) most of the messages exchanged are with people in the same group, 2) people consider interlocutors and the characteristics of text in different groups, so they intend to reflect these when sending Keitai-mail to people in a different group. Although gender differences exist as shown in the discussion in the previous section, this section focuses only on age/social role differences, and the combination of gender and age is not further discussed.



### Length

Tables 8.8 and 8.9 describe the average length of texts and of emoticon use based on age and social-role difference respectively. “Younger age group” here means those aged 18 to 23, the lower half of the target age group between 18 and 30. Both tables include information for sent and received Keitai-mail. Since sent Keitai-mail obviously reflect the difference in age (whereas received Keitai-mail can be from any age group), sent Keitai-mail are the focus of the following discussion in order to show the characteristics of Keitai-mail in terms of different ages and social roles.

Table 8.8 Keitai-mail exchange in terms of age

Type	Frequency	Length	Number of moji	Emoticons
Younger – Receive	10964	44.33	40.92	3.41
Older – Receive	15439	42.67	40.55	2.11
Younger – Sent	6883	42.76	39.33	3.44
Older – Sent	10009	36.34	34.39	1.96
Total	43295	41.64	39.02	2.62

Table 8.9 Keitai-mail exchange in terms of social role

Type	Frequency	Length	Number of moji	Emoticons
Student – Receive	11220	42.47	39.50	2.97
Worker – Receive	15183	44.01	41.59	2.42
Student – Sent	6730	38.71	35.71	3.00
Worker – Sent	10162	39.12	36.86	2.27
Total	43295	41.64	39.02	2.62

Table 8.8 shows that those in the younger age group tend to write longer Keitai-mail with more emoticons ( $p < 0.001$ ). For Table 8.9, there are large differences in emoticon use between students and workers ( $p < 0.001$ ). Total length and number of moji seem similar but are actually statistically significant and there are meaningful differences in terms of statistics.

However, workers create mail which includes slightly more moji. From Tables 8.8 and 8.9, it can be seen that the quantity of text is more influenced by age, since the student-worker comparison does not show this difference.

*Use of each type of symbol*

Tables 8.10 and 8.11 show how each type of symbol is used based on differences in age and social role (Figures 8.4 and 8.5 present the tables in visual form respectively). Each table includes the occurrence of each type of symbol and the proportion it occupies. Older people and workers used more Kanji, Hiragana and Arabic numerals (which people use in general daily Japanese literacy practice).

Table 8.10 Occurrence and proportion of each type of symbol by age group

	Frequency		Proportion	
	Older	Younger	Older	Younger
Kanji	76,885	61,721	21.16%	20.99%
Hiragana	217,951	166,448	59.99%	56.62%
Katakana	18,930	16,968	5.21%	5.77%
Half-size Katakana	164	2,658	0.05%	0.90%
Romaji	253	293	0.07%	0.10%
Arabic numerals	1,315	1,385	0.36%	0.47%
Etc	47,837	44,524	13.17%	15.14%
Total	363,335	293,997		

Table 8.11 Occurrence and proportion of each type of symbol by social role

	Frequency		Proportion	
	Worker	Student	Worker	Student
Kanji	84,743	53,863	21.34%	20.70%
Hiragana	235,863	148,536	59.39%	57.09%
Katakana	20,189	15,709	5.08%	6.04%
Half-size Katakana	1,081	1,741	0.27%	0.67%
Romaji	245	301	0.06%	0.12%
Arabic numerals	1,744	956	0.44%	0.37%
Etc	53,278	39,083	13.42%	15.02%
Total	397,143	260,189		

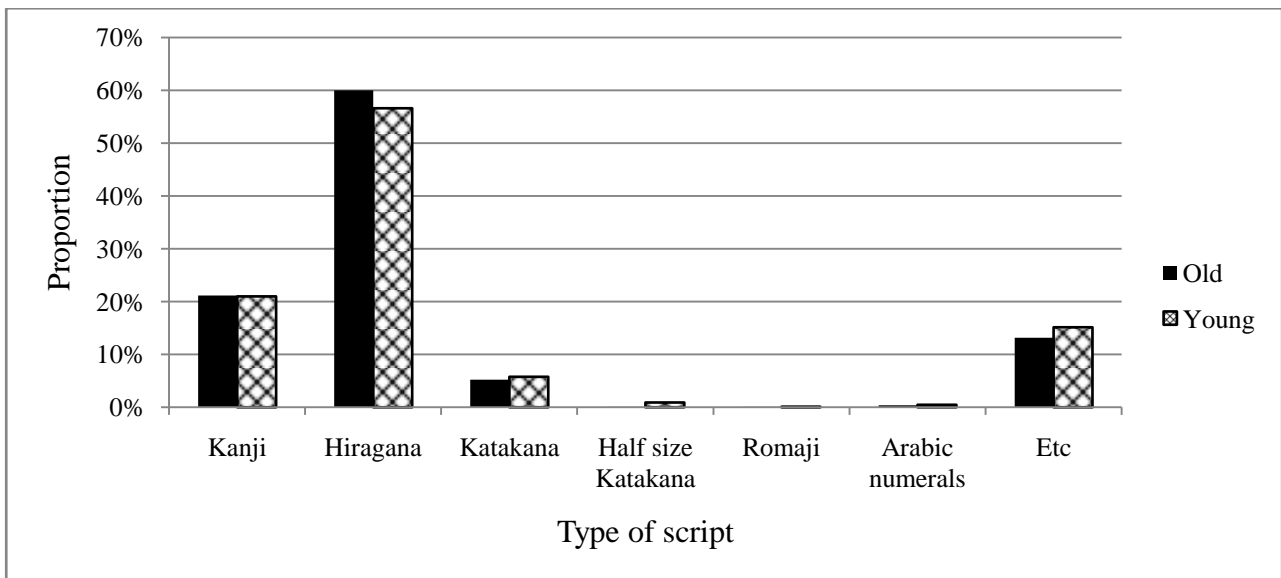


Figure 8.4 Proportion of use of each type of symbol by age group

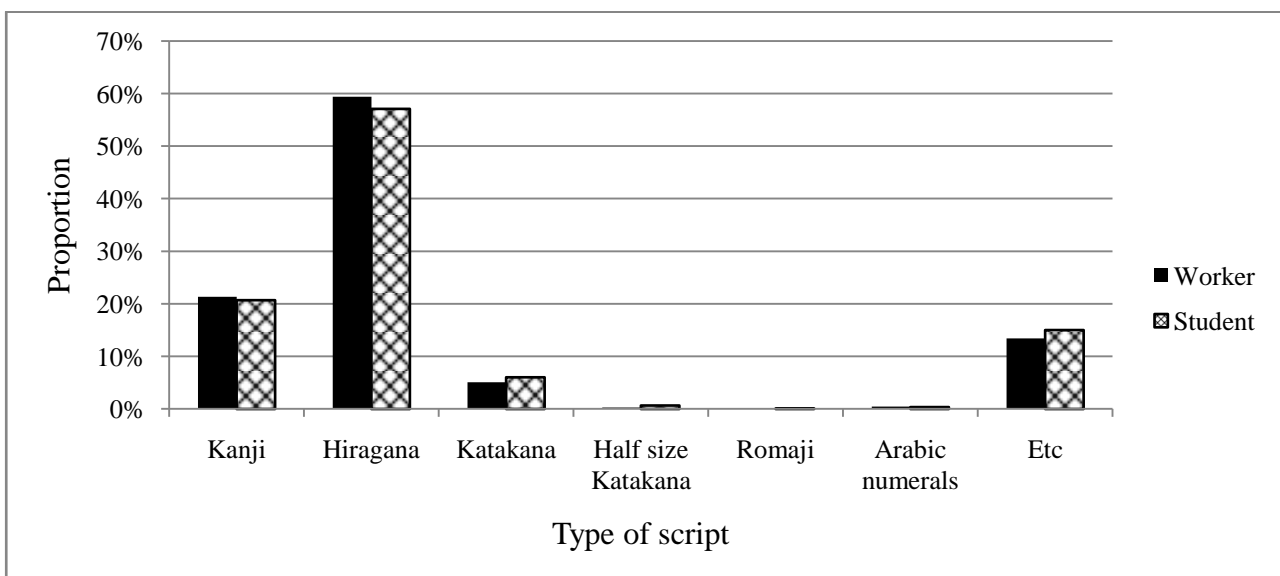


Figure 8.5 Proportion of use of each type of symbol by social role

On the other hand, Katakana (particularly half-size), Romaji and other characters are more often found in Keitai-mail written by the younger group and by students. These types of symbol are relatively less used in writing Japanese, and it can be assumed here that younger people and students prefer to include some irregularity in texts. Even if all Katakana were used in the proper way for loanwords (i.e., if there were no irregular use of Katakana as LP), this group uses such loanwords more often than older people and workers do, constituting a trend.

*Emoticons*

Tables 8.12 and 8.13 illustrate how each emoticon is used in Keitai-mail based on age and social role respectively, and Tables 8.14 and 8.15 show the proportion of each type of emoticon in the texts. The focus here is also on sent mail. Each type of emoticon is used differently by the two groups.

Table 8.12 Use of each emoticon based on age

		①	②	③	④	⑤	⑥	⑦	⑧
Younger	F	28,921	2,672	31,593	4,137	478	4,615	1,221	37,429
Receive	<i>M</i>	2.64	0.24	2.88	0.38	0.04	0.42	0.11	3.41
Older	F	25,923	2,048	27,971	2,801	213	3,014	1,660	32,645
Receive	<i>M</i>	1.68	0.13	1.81	0.18	0.01	0.20	0.11	2.11
Younger	F	18,830	1,791	20,621	2,261	415	2,676	358	23,655
Send	<i>M</i>	2.74	0.26	3.00	0.33	0.06	0.39	0.05	3.44
Older	F	13,778	1,333	15,111	3,297	354	3,651	805	19,567
Send	<i>M</i>	1.38	0.13	1.51	0.33	0.04	0.36	0.08	1.95

*Abbreviation.* F: Frequency

①Emoji as a picture ②Emoji as replacement ③Emoji total ④Decome as a picture  
⑤Decome as replacement ⑥Decome total ⑦Kaomoji ⑧Total

Table 8.13 Use of emoticons by social role

		①	②	③	④	⑤	⑥	⑦	⑧
Student	F	27,036	2,585	29,621	2,437	215	2,652	1094	33,367
Receive	<i>M</i>	2.41	0.23	2.64	0.22	0.02	0.24	0.10	2.97
Worker	F	27,808	2,135	29,943	4,501	476	4,977	1787	36,707
Receive	<i>M</i>	1.83	0.14	1.97	0.30	0.03	0.33	0.12	2.42
Student	F	17,396	1,680	19,076	732	107	839	265	20,180
Send	<i>M</i>	2.58	0.25	2.83	0.11	0.02	0.12	0.04	3.00
Worker	F	15,212	1,444	16,656	4,826	662	5,488	898	23,042
Send	<i>M</i>	1.50	0.14	1.64	0.47	0.07	0.54	0.09	2.27

Table 8.14 Proportion of use for each emoticon based on age

Direction	Emoji	Kaomoji	Decome	Total
Younger Receive	0.079	0.006	0.003	0.087
Older Receive	0.063	0.010	0.004	0.077
Younger Send	0.088	0.003	0.002	0.092
Older Receive	0.056	0.014	0.003	0.073

Table 8.15 Proportion of use of each emoticon based on social role

Direction	Emoji	Kaomoji	Decome	Total
Student Receive	0.080	0.011	0.003	0.093
Worker Receive	0.063	0.006	0.004	0.073
Student Send	0.090	0.010	0.002	0.102
Worker Receive	0.053	0.009	0.004	0.066

Of total emoticon use, Decome still only account for a small proportion and the younger group who have a stronger preference for including emoticons still have not applied them dramatically. At the same time, younger people substitute Decome for particular words (or for a part of the message which cannot be omitted) more than the older group do, so younger people show a stronger tendency to apply Decome in order to create singularity.

*Genres*

Table 8.16 shows the occurrence of genres based on age and social role. In analysing how each age group uses each genre, Table 8.17 summarises the results of the Mann-Whitney U test which evaluates whether each different age or social group shows a different tendency in their text composition by looking at the inclusion of each genre. The different groups apply each genre differently in Keitai-mail and the discussion below points out several particular highlights shown in the data.

Table 8.16 Occurrence and proportion of each genre based on age and social role

Direction		SA	F	N	M	TD	D	A	T	G
Younger Receive	F	1,736	1,403	1,484	1,476	68	922	1,187	1,116	1,385
	M	0.16	0.13	0.14	0.13	0.01	0.08	0.11	0.10	0.13
Older Receive	F	2,213	1,557	2,481	2,154	82	1,006	1,659	1,418	2,194
	M	0.14	0.10	0.16	0.14	0.01	0.07	0.11	0.09	0.14
Younger Sent	F	1,357	835	1,003	1,049	29	597	993	793	912
	M	0.20	0.12	0.15	0.15	0.00	0.09	0.14	0.12	0.13
Older Sent	F	1,559	967	1,690	1,448	62	638	1,085	934	1,037
	M	0.16	0.10	0.17	0.14	0.01	0.06	0.11	0.09	0.10
Younger total	F	3,093	2,238	2,487	2,525	97	1,519	2,180	1,909	2,297
	M	0.17	0.13	0.14	0.14	0.01	0.09	0.12	0.11	0.13
Older total	F	3,772	2,524	4,171	3,602	144	1,644	2,744	2,352	3,231
	M	0.15	0.10	0.16	0.14	0.01	0.06	0.11	0.09	0.13
Student Receive	F	1,721	1,289	1,574	1,527	58	786	1,129	1,083	1,324
	M	0.15	0.11	0.14	0.14	0.01	0.07	0.10	0.10	0.12
Worker Receive	F	2,228	1,671	2,391	2,103	92	1,142	1,717	1,451	2,255
	M	0.15	0.11	0.16	0.14	0.01	0.08	0.11	0.10	0.15
Student Sent	F	1,287	726	985	947	23	490	885	710	772
	M	0.19	0.11	0.15	0.14	0.00	0.07	0.13	0.11	0.11
Worker Sent	F	1,629	1,076	1,708	1,550	68	745	1,193	1,017	1,177
	M	0.16	0.11	0.17	0.15	0.01	0.07	0.12	0.10	0.12
Student total	F	3,008	2,015	2,559	2,474	81	1,276	2,014	1,793	2,096
	M	0.11	0.14	0.14	0.14	0.00	0.07	0.11	0.10	0.12
Worker total	F	3,857	2,747	4,099	3,653	160	1,887	2,910	2,468	3,432
	M	0.15	0.11	0.16	0.14	0.01	0.07	0.11	0.10	0.14

*Abbreviation.* F: Frequency

[SA] Short answer [F] Future coordination [N] Near-future coordination

[M] Middle-future coordination [TD] Coordination of the day [D] Distant-future coordination

[A] Apologies [T] Thanks notes [G] Greeting

Table 8.16 (Continued)

Direction		PI	I	Q	I	S	O	R	Groom	E
Younger Receive	F	1,187	1,515	3,574	18	1,734	1,568	2,557	827	902
	M	0.11	0.14	0.33	0.00	0.16	0.14	0.23	0.08	0.08
Older Receive	F	1,811	2,077	4,483	26	1,852	1,914	3,636	1,042	1,195
	M	0.12	0.13	0.29	0.00	0.12	0.12	0.24	0.07	0.08
Younger Sent	F	520	872	2,131	11	1,026	800	1,339	461	581
	M	0.08	0.13	0.31	0.00	0.15	0.12	0.19	0.07	0.08
Older Sent	F	518	1,170	2,747	30	1,086	1,199	1,950	751	730
	M	0.05	0.12	0.27	0.00	0.11	0.12	0.19	0.08	0.07
Younger total	F	1,707	2,387	5,705	29	2,760	2,368	3,896	1,288	1,483
	M	0.10	0.13	0.32	0.00	0.15	0.13	0.22	0.07	0.08
Older total	F	2,329	3,247	7,230	56	2,938	3,113	5,586	1,793	1,925
	M	0.09	0.13	0.28	0.00	0.12	0.12	0.22	0.07	0.08
Student Receive	F	1,453	1,548	3,692	23	1,573	1,522	2,563	784	900
	M	0.13	0.14	0.33	0.00	0.14	0.14	0.23	0.07	0.08
Worker Receive	F	1,545	2,044	4,365	21	2,013	1,960	3,630	1,085	1,197
	M	0.10	0.13	0.29	0.00	0.13	0.13	0.24	0.07	0.08
Student Sent	F	484	897	2,058	12	852	774	1,205	498	531
	M	0.07	0.13	0.31	0.00	0.13	0.12	0.18	0.07	0.08
Worker Sent	F	554	1,145	2,820	29	1,260	1,225	2,084	714	780
	M	0.05	0.11	0.28	0.00	0.12	0.12	0.21	0.07	0.08
Student total	F	1,937	2,445	5,750	35	2,425	2,296	3,768	1,282	1,431
	M	0.11	0.14	0.32	0.00	0.14	0.13	0.21	0.07	0.08
Worker total	F	2,099	3,189	7,185	50	3,273	3,185	5,714	1,799	1,977
	M	0.08	0.13	0.28	0.00	0.13	0.13	0.23	0.07	0.08

[PI] Personal information [I] Information [Q] Questions [Inv] Invitation [S] Suggestions  
 [O] Opinions [R] Requests [Groom] Grooming [E] Emotional grooming

Table 8.16 (Continued)

Direction		C	E	H	SRJ	J	L	PN	Quo	IN
Younger Receive	F	157	579	606	8	15	138	1,418	4	214
	M	0.01	0.05	0.06	0.00	0.00	0.01	0.13	0.00	0.02
Older Receive	F	188	534	631	17	19	217	1,990	41	198
	M	0.01	0.03	0.04	0.00	0.00	0.01	0.13	0.00	0.01
Younger Sent	F	74	306	337	2	6	100	928	3	233
	M	0.01	0.04	0.05	0.00	0.00	0.01	0.13	0.00	0.03
Older Sent	F	80	305	366	14	11	89	1,216	7	131
	M	0.01	0.03	0.04	0.00	0.00	0.01	0.12	0.00	0.01
Younger total	F	231	885	943	10	21	238	2,346	7	447
	M	0.01	0.05	0.05	0.00	0.00	0.01	0.13	0.00	0.03
Older total	F	268	839	997	31	30	306	3,206	48	329
	M	0.01	0.03	0.04	0.00	0.00	0.01	0.13	0.00	0.01
Student Receive	F	122	522	539	7	20	148	1,420	7	172
	M	0.01	0.05	0.05	0.00	0.00	0.01	0.13	0.00	0.02
Worker Receive	F	223	591	698	18	14	207	1,988	38	240
	M	0.01	0.04	0.05	0.00	0.00	0.01	0.13	0.00	0.02
Student Sent	F	55	270	260	7	7	78	851	4	177
	M	0.01	0.04	0.04	0.00	0.00	0.01	0.13	0.00	0.03
Worker Sent	F	99	341	443	9	10	111	1,293	6	187
	M	0.01	0.03	0.04	0.00	0.00	0.01	0.13	0.00	0.02
Student total	F	177	792	799	14	27	226	2,271	11	349
	M	0.01	0.04	0.04	0.00	0.00	0.01	0.13	0.00	0.02
Worker total	F	322	932	1,141	27	24	318	3,281	44	427
	M	0.01	0.04	0.05	0.00	0.00	0.01	0.13	0.00	0.02

[C] Notes of congratulations [Ex] Expectations [H] Hope [SRJ] Sex-related jokes [J] Jokes  
[L] Location information [PN] Personal news [Quo] Quotation  
[IN] Calling interlocutor by name

*Note.* 'Safety information' is found in: one student received, one worker received, and two younger received.



Table 8.17 P-values of Mann-Whitney U test for each genre

Genre	Age	Social role	Genre	Age	Social role
Short answers	<0.000**	<0.000**	Opinions	0.001**	0.489
Future coordination	<0.000**	0.205	Requests	0.765	<0.000**
Near-future coordination	<0.000**	<0.000**	Grooming	0.495	0.861
Middle-future coordination	0.985	0.064	Emotional grooming	0.005**	0.513
Coordination of the day	0.758	0.013*	Notes of Congratulations	0.021*	0.006**
Distant-future coordination	<0.000**	0.185	Expectations	<0.000**	<0.000**
Apologies	<0.000**	0.399	Hopes	<0.000**	0.802
Thanks notes	<0.000**	0.387	Sex-related Jokes	0.028	0.342
Greetings	0.593	<0.000**	Jokes	0.995	0.096
Personal information	0.146	<0.000**	Location information	0.228	0.968
Information	0.061	0.002	Personal News	0.094	0.368
Questions	<0.000**	<0.000**	Quotations	<0.000**	0.001**
Invitations	0.183	0.958	Calling interlocutor by name	<0.000**	0.045*
Suggestions	<0.000**	0.071			

Note. \*  $p < .05$ , \*\*  $p < .01$

- Coordination of the day, and distant-future coordination

Talking about plans or happenings expected to occur in the future is quite common, but different groups tend to focus on different future timeframes. Students and workers include coordination of the day differently. This means, with Table 9, workers talk more about the future expected within the next few days. This can be interpreted as showing that, compared to students, workers are under more time pressure and they have tighter schedules than students, so they need to inform others of their plans on a day-by-day basis. This tendency is not seen in a comparison between the younger and older age groups and is an example of the influence of social role on Keitai-mail. On the other hand, distant-future coordination can be seen more in mails sent by younger people. Hopes show the same tendency and this too might be a reflection of life stage.

- Thanks and greetings

Thanks notes appear more in Keitai-mail sent by younger people. Younger people are said to

be less polite today than at any other time in history, but it is interesting that younger people in this data corpus include such thanks and greeting messages more often than the older group. It may be the case that the older age group still hesitates to use Keitai-mail to convey such messages. On the other hand, greetings are found in Keitai-mail by workers, and this result corresponds with a natural intuition that workers are required to make greetings more in their life and this common practice is reflected in Keitai-mail communication.

- Emotional grooming and messages of congratulations

Younger people create messages which consist of these two genres more than the older group does. It can be seen from this that younger people feel greater freedom in expressing their feelings: emotional grooming is, as the genre shows, the expression of feelings; congratulatory messages are an expression of happiness for interlocutors' success or similar events. One thing to note here is that workers use greeting messages more than students do, and this shows that communication between different ages and social roles does not precisely correspond, even though there is not a great gap.

- Information and personal information

Students include these two genres which relate to information. The latter can simply be interpreted as showing that students have more chance to talk about themselves compared to busy workers. The former is not as obvious as personal information, but it can be said that information here means information on daily life such as events or shopping, or even gossip. In that sense, students seem to have more time to discuss such simple matters than workers do.

Genres appear differently in Keitai-mail based on age and social role. As shown above, social role influences choice of content as seen in choice of middle-future coordination and coordination of the day. However, age is the more influential factor in choosing genres or creating messages because it affects choice of different genres more than does social role.

### 8.3 Cultural practice through Keitai-mail: New Year greetings as example

This section discusses how Keitai-mail are used as a part of or as an alternative method in cultural practice, using the example of New Year greetings. In Japan, it is normal cultural practice that people send a New Year communication called a *Nengajō* (年賀状), using a special type of postcard (called *Nenga hagaki*, see Figure 8.6) to congratulate their friends, families and contacts on the new year and ask for the continuance of their good relationship over the coming year. It is sometimes sent by and to those who rarely have contact in real life as well.

Figure 8.6 New Year postcard



Source. Japan Post Network

Nengajō exchanges are very common and are done by every generation, from children to old people. Therefore, Nengajō are a good example of cultural practices, which sometimes disappear from a young age.

In Japan, to be able to send Nengajō on New Year's Day (i.e., January 1), people buy Nenga hagaki in December. They then post the postcard several days before New Year's Day, so that recipients can receive them on New Year's Day (of course, some Nengajō are received after New Year's Day, depending on when they are posted).

In terms of composition, certain special customs are observed. Nengajō greetings include at the beginning the New Year greeting of “明けましておめでとうございます”

(/a ke ma shi te o me de to u go za i ma su/, “Happy new year!”). There are several variations of this greeting, such as omitting the last five moji ございます, using English “Happy New Year”, using the abbreviated form あけおめ /a ke o me/, and so forth. This greeting is a compulsory part of New Year greetings. After that, people may include several types of messages such as “今年もよろしくおねがいします” (/ko to shi mo yo ro shi ku o ne ga i shi ma su/, meaning “please continue a good relationship with me this year as usual”), “去年はお世話になりました” (/kyo ne n wa o se wa ni na ri ma shi ta/, meaning “Thank you for your cooperation over the last year”), and so forth. Of course, people can also include general content in New Year greetings, but Nengajō have the specific composition characteristics shown above.

The practice of New Year greeting is one of the major cultural practices influenced by technology. In the past, the postcards were written by hand. However, as reasonable-cost PCs and printers have been widely purchased by households, over the last several years in particular, many people including non-professionals use templates of Nengajō and create the Nengajō on their PC, then print them out. This technology increases the expressiveness of Nengajō: for example, people can easily include pictures without using special techniques. At the same time, however, Nengajō should still be posted by and until a certain day: the timeframe is the same as for the traditional handwritten postcards. In some senses, the exchange of Nengajō is a time-consuming practice.

*Timeframe of New Year greeting messages: paper-based and Keitai-mail*

As Keitai-mail are a normal part of daily communication, in particular among young people, they are also used for New Year greetings, and this changes the timeframe of such greetings (here, Keitai-mail for New Year greeting are called Nenga-mail). First, the extent to which young people use Keitai-mail for Nengajō (so called *Nenga-mail*) is considered. In the corpus, there are 131 Keitai-mail which were exchanged on January 1.<sup>54</sup> Among them, 84 were New Year greeting messages. This means about two-third (66%) of the Keitai-mail exchanged on New Year's day were New Year greetings having a special type of composition, showing that Keitai-mail are already widely used in this particular type of cultural practice.

Throughout the corpus, 161 New Year's messages were found and Table 8.18 and Figure 8.7 show when the messages were exchanged (Figure 8.7 includes the days when people did not exchange Nenga-mail in order to display the distribution). These displays show that 84 Nenga mails were exchanged on New Year's Day, 53% of the total number of exchanges (note: the dates of four Nenga-mail could not be decided for technical reasons and were therefore excluded in the calculation of proportion).

As these data show, people exchanged the messages on New Year's Day in the same way as ordinary Nengajō, but two new trends can also be discerned here: 1) Keitai-mail involve on-the-spot communication, i.e., Nenga-mail are both created and sent on New Year's Day, so that people decrease the number of or even do not write Nengajō before the day itself; 2) even though they exchanged Nenga-mail on January 1 the most, the proportion for this is still only just over half.

Table 8.18 Number of New Year messages exchanged via Keitai-mail

Day	Frequency	Proportion	Day	Frequency	Proportion
12/31	1	0.64%	1/9	1	0.64%
1/1	84	53.50%	1/10	1	0.64%
1/2	30	19.11%	1/11	1	0.64%
1/3	9	5.73%	1/14	1	0.64%
1/4	5	3.19%	1/15	1	0.64%
1/5	2	1.27%	1/19	1	0.64%
1/6	5	3.19%	2/7	1	0.64%
1/7	10	6.37%	Unknown	4	-
1/8	4	2.55%			

<sup>54</sup> The number of 131 seems small, but the theoretical average of Keitai-mail per day found in the corpus is approximate 119 (= 43,295 ÷ 365), so the number is reasonable.

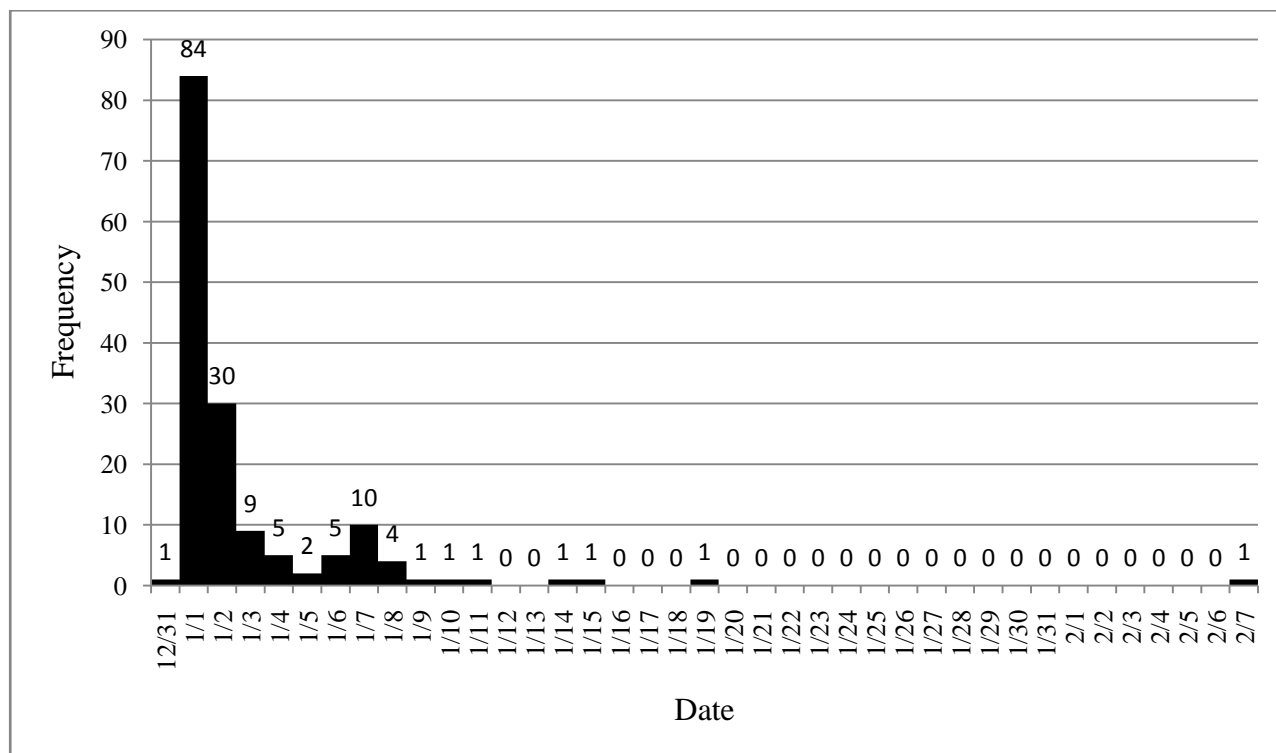


Figure 8.7 Number of New Year messages exchanged through Keitai-mail

As for the latter, interestingly, although they exchanged Nenga-mail in the first three days of the New Year,<sup>55</sup> some of these Nenga-mail were exchanged on later days in January and even in February, something not normally envisaged in the traditional exchange of postcards. To analyse the characteristics of such late Nenga-mail, several mails sent on later days are shown below: the left-hand side shows the original text and the right-hand side is its translation.

Date: January, 8; Sender: Female; Recipient: Male	
(無題)	(No title)
あけおめー 元気だよ👉息子もすくすく大きくなっとなります😊	HNY*ー I'm fine👉 My son is growing up so fast😊

\*An abbreviation for“Happy New Year”

Date: January, 14; Sender: Female; Recipient: Female	
(無題)	(No title)
X ちゃんあけおめ～😊🌟🌟🌟遅いけど笑 新年はっぴーに過ごしてますか!?! Y は毎日あっというまに過ぎ去ります👀 今年はお互いでらいいパートナーを見つけようね👉それには自分みがきが第一じゃ!!👀👀 あとね贈るものあるから住所教えてくれろ～ほな今年もよろちくりん👀❤️	X, HNY* ～😊🌟🌟🌟 But it is too late. lol Are you happy this new year!?! For Y(myself), everyday is soon gone 👀 Let's find a very good partner this year👉 To do so, the most important thing is to grow up myself!!👀👀 In addition, I have something to send to you, so please tell me your address～ Ya, please have a good friendship with me👀❤️

<sup>55</sup> The first three days of New Year (January 1 to 3) are called *sanganichi*, national holidays in Japan, and people generally regard this period as New Year.

Date: January,15 ; Sender: Female; Recipient: Female	
おはよう	Hello
遅ればせながら明けましておめでとう 私にも、Xちゃんにも幸せたくさん降ってきますように🎆	Belatedly, happy new year🎆 I hope there is lots of happiness for you and me🎆
ところでYはすくすく大きくなってるかしら 😊!?!?そろそろ会いたいよー👉👉👉	By the way, is Y growing up fast😊!?!? I hope to meet you 🍻🍻🍻
まだ早い!?!?	Is that too early!?!?

Date: January, 19; Sender: Male; Recipient: Female	
(無題)	(No title)
あ🎆	Ah🎆
あけおめのことよろ🎆	HNY* and PHGR** 🎆
よい年度末をすごしてください🎆	Have a good time at the end of the (Japanese) fiscal year🎆

\*\* An abbreviation for “Please Have a Good Relationship”

Date: February, 7; Sender: Male; Recipient: Not known	
(無題)	(No title)
明けましておめでとうございます。 今年もよろしくお願ひします。	Happy New Year. Please have a good relationship with me this year
Aさんって今もXの近くに住んでるんですか?	Do you live around X now?

These five Nenga-mail exhibit the gender differences discussed in the previous chapter. The messages exchanged between females are longer and contain many emoticons. On the other hand, messages become shorter with fewer emoticons when each or both of the senders and recipients is/are male.

In addition, we find some LP in the pattern messages of the New Year greeting. The third example includes あけおめ and ことよろ/ko to yo ro/, which are abbreviations of あけましておめでとう (“Happy New Year”, note: the first あ can be written in both Hiragana and Kanji 明) and ことしもよろしく (“Please have a good relationship with me this year”) respectively.

As for the timeframe of Nenga-mail, some people are concerned about their delay in sending their New Year greeting. For example, two of the five mails above include the writers’ apologies for the delay:

遅くなりました😊🎵明けましておめでとう😊🎵  
[Belatedly😊🎵Happy New Year😊🎵]

This message is a part of a Nenga-mail sent on January 2. This shows that even though people failed to send a New Year mail on New Year’s Day and delayed it by only a day, some think this is

too late to send a New Year greeting mail. A similar example is found in another mail sent on January 4 (this is also a part of a longer text):

かなり遅れたけど、あけましておめでとう！！  
[I'm so late, but Happy New Year!!]

The sender feels that sending a New Year greeting message on January 4, three days after New Year's Day, is very late, perhaps because January 4 falls after the first three days of New Year (sanganichi), and the New Year has already gone. Several texts include similar messages, but in total, 11 out of 73 Nenga-mail exchanged on days other than January 1 include messages concerning the delay. This means that as only 15% of the e-mails mention the delay, sending a New Year greeting after New Year's Day is not seen as a significant matter.

The first five examples show that people also include some questions instead of just finishing with their New Year congratulations. For instance, the Nenga-mail sent on February 7 includes a question asking where the person lives. Another text also shows this tendency:

あけましておめでとうございます🍀🍀🍀  
X先生の授業って15日やんな？  
[Happy New Year 🍀🍀🍀  
will Prof X's lectures be held on the 15th?]

These examples show that New Year greetings can be regarded not only purely as a stand-alone celebration of the New Year but also as an opening statement of communication in the same way as other greetings like “good morning” or “hello”. The example below shows the use of a New Year greeting as a communication device, i.e., an opening statement:

新年明けましておめでとうございます。新年明けて早々に失礼ですがメールアドレスを変更したことを連絡します。よろしくお願ひします。  
[Happy New Year. It may be too early to do so, and please excuse me, but I would like to inform you of a change in my Keitai e-mail address. Thank you.]

This message was sent on January 9. In general, it was no longer necessary to say “Happy New Year” by the ninth, and it would not be problematic if someone sent Keitai-mail advising of a new Keitai number or address as their opening statement by that date. Therefore, we can assume that this is the sender's first e-mail to the recipient since the New Year, so that using a New Year greeting is an effective opening to the communication.

As the discussion above shows, Keitai-mail have brought about a new trend in the timeframe of Nenga message exchange practice. Nenga-mail are prompt and people can easily send them. Moreover, they can also send them later, after New Year's Day, as well as using a New Year greeting as their starting point for communication. These characteristics are trends found in Keitai-mail. At the same time, some participants also expressed some feeling of strangeness in using

Keitai-mail as a substitute for traditional paper-based New Year greeting.

### *Components of Nenga-mail*

This section analyses the components of Nenga-mail. Table 8.19 compares the average numbers of each component between Nenga-mail and the texts as a whole. It shows that the length of Nenga-mail is longer than the average for the total. Nenga-mail have 30 more moji than ordinary Keitai-mail. In particular, Nenga-mail contain approximately double the number of emoticons. One interesting feature here is that in Nenga-mail there is less replacement by Emoji. This can mean that there are no words suitable to be replaced since replacements occur in a limited manner only when the meanings of Emoji are clear.

Table 8.19 Proportion of components

Component	Nenga-mail	Total	Difference
Length	71.27	41.64	27.80
The occurrences of the five scripts	66.48	39.02	25.74
Emoji as a picture	2.63	2.02	0.58
Emoji as replacement	0.11	0.18	-0.07
Emoji total	2.74	2.20	0.51
Decome as a picture	1.67	0.29	1.29
Decome as replacement	0.17	0.03	0.14
Decome total	1.84	0.32	1.43
Kaomoji	0.21	0.09	0.11
Total number of emoticons	4.79	2.62	2.06

Figure 8.8 illustrates the different uses of emoticons in Nenga-mail and in the total Keitai-mail corpus, and shows that Nenga-mail contain most of each type of emoticon. In particular, Nenga-mail apply Decome much more than do texts in general. Decome are relatively demanding and time-consuming in application. New Year's Day is a special day and exchanging New Year greetings is also a special cultural practice for Japanese people. This special occasion lets people create Keitai-mail with many emoticons, which means texts are so decorated, colourful and eye-catching that they feel luxurious and beautiful, and people will try to celebrate this special time by applying decoration in order to create a special-looking text even on the Keitai screen.



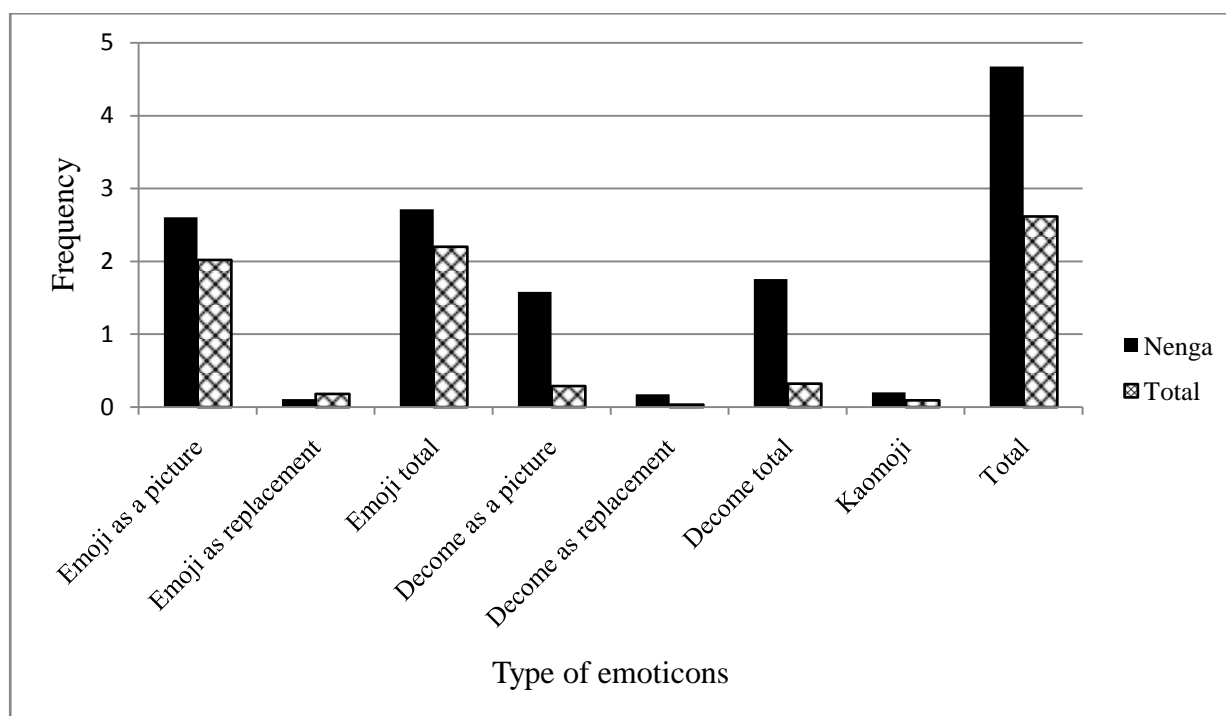


Figure 8.8 Use of emoticons in Nenga-mail and the total corpus

Looked at another way, it can also be said that even though Japanese traditional culture may have fallen out of fashion, young people do retain a sense of tradition to a certain extent, and Nenga-mail reflect this. That is shown by the fact that they add some aura of celebration to the mail they create. Otherwise, they would not make the extra effort.

#### *Keitai-mail as the successor to paper New Year greetings*

For young people, it seems to be common practice to use Keitai-mail to send a New Year message as an alternative to sending the traditional paper-based Nengajō, so some might predict that Keitai-mail will replace all paper-based Nengajō in the near future. However, the corpus also includes cases where people hesitated to use Keitai-mail for New Year greetings (only the part of the message important to this discussion is presented here):

明けましておめでとうございます 年賀状が書けなかったのでメールで失礼しますっ  
(\*≧ω≦\*)

[Happy New Year. Sorry about the Nenga-mail, because I couldn't write a Nengajō (\*≧ω≦\*)]

明けましておめでとうございます🍡  
年賀状は書く時間なくて📧にしちゃってごめんなさい😞

[Happy New Year🍡  
I did not have time to write a Nengajō, and sorry I use📧 instead 😞]

These two messages show that the senders apologised that they could not send a New Year postcard, and it can be seen that there is some hesitation in using Keitai-mail as a New Year greeting.

Furthermore, some sent paper-based Nengajō even though they could have sent a greeting by Keitai-mail, as the examples below show:

年賀状かこうと思うのでもしよければ【住所】おしえて下さい📱  
[I plan to write a Nengajō so please tell me your address 📱]

This is typical of the messages in which people show their intention to send a New Year postcard. In another case:

突然なんやけど、Xの住所教えてもらえんかな？ 3年ぶり？ぐらいに年賀状書いてみょうかと 笑  
[This is so sudden for you, but can you tell me your address? I think it has been three years?, but I want to write a Nengajō. lol]

In this case, the sender had not written paper-based Nengajō for three years, but she decided to send one again this year. Another similar case:

どうもです🎶 今年は年賀を出そうと思い、住所を教えてもらえないかと📱  
[Hi🎶 I plan to send a Nengajō this year, so I want you to tell me your address📱]

This example also shows that the sender intended to send the postcard this year although they had not yet done so. Interestingly, this message was sent around noon on 31 December, meaning that the postcard would not be able to arrive on New Year's Day. If Nenga-mail had been used, the message would have arrived that day, but the person preferred to use a paper-based postcard this time.

These cases illustrate that even though some have stopped writing paper-based Nengajō, particularly by substituting Nenga-mail, they have not abandoned the possibility of creating paper-based postcards again some time. Therefore, it can be said that paper-based Nengajō have a special meaning for Japanese people. Another interesting example follows:

年賀状届きました。ありがとうございます。いまは年賀状の返事に追われています(4通) 来ないと思っていた人から来ました。浅はかでした。  
[I received your Nengajō. Thank you very much. Now I'm writing replies to 4 Nengajōs. I received them from unexpected people. My prediction was too easy.]

In this case, the recipient of a paper-based New Year postcard sends Keitai-mail to say thank you to the sender, and to tell the sender that he is busy creating extra postcards for people from whom he did not expect to receive Nengajō. This is an example showing that people have occasion to make a Nengajō when they receive one.

The cases shown above could reasonably be considered to indicate that, instead of disappearing, Nengajō will live on together with Nenga-mail as two different methods of New Year greeting.

*Summary*

Young people use Keitai-mail as a means of greeting on New Year's Day as an alternative method to traditional paper-based postcard exchanges. The promptness of Keitai-mail exchange has influenced the timeframe of New Year greeting practices: the times at which they create and send Nenga-mail have become more flexible. In addition, New Year greeting messages can also be used as an effective opening device in a communication and new media Keitai add another dimension to this cultural practice which is no longer restricted by the traditional norms.

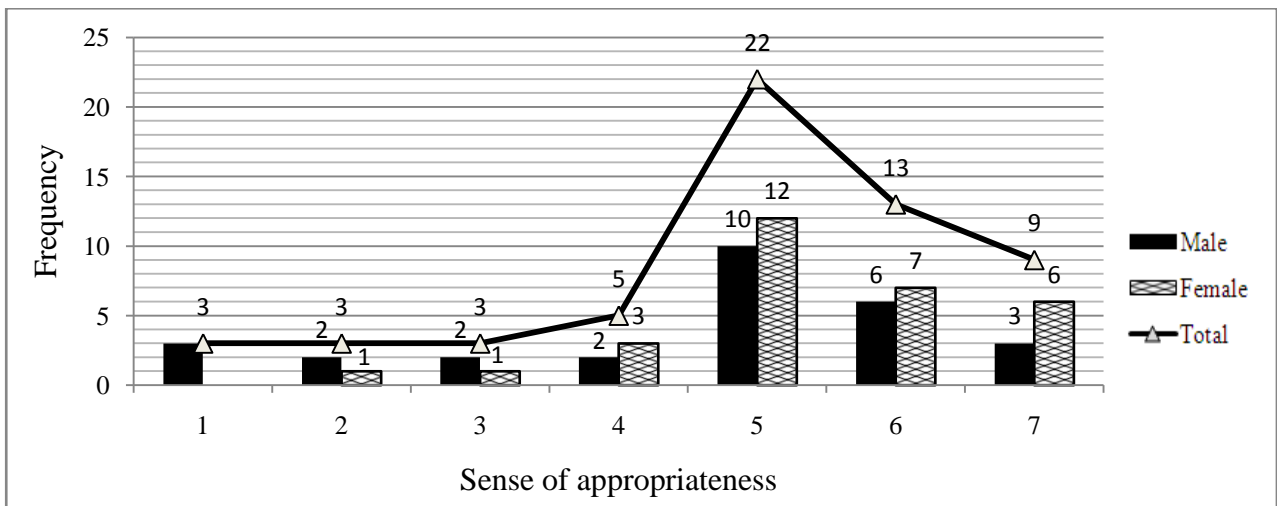
At the same time, the use of Keitai-mail for New Year greetings does not mean people have forgotten the sense of preciousness inherent in tradition and the traditional postcard method. The creation of longer and more decorative mails can be seen as a reflection of their special sense of New Year's Day and their wish to create a special mail in celebration. Moreover, some also like to write traditional postcards even though they could use Keitai-mail instead. Therefore, the emergence of Nenga-mail can be seen as a phenomenon which does not vanquish this tradition but opens up a new possibility of expression. Therefore, people use both this new way and the traditional way together to achieve effective communication.

#### 8.4 The Japanese language and young people

This section analyses the results of the questionnaire to determine what other social properties, in particular perspectives on the Japanese language held by young people, influence Keitai-mail.

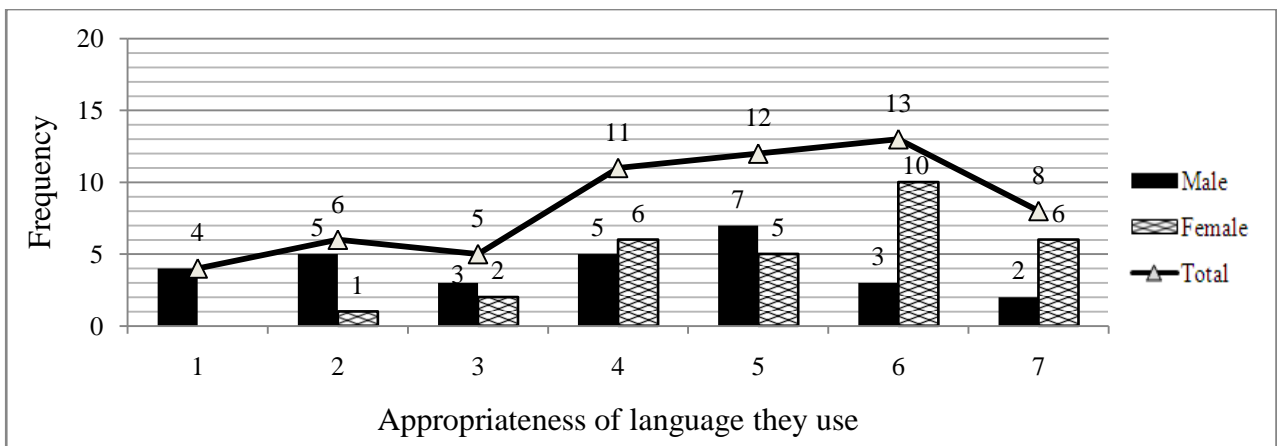
##### *Sense of appropriateness*

Figure 8.9 demonstrates what respondents think of the appropriateness of the use of the Japanese language today in general, in answer to the question of "Recently, it has often been said that the Japanese language is not used in an appropriate manner", and participants are asked whether they "actually feel this inappropriate use of Japanese in daily life" (Question 5-1). In addition, Figure 8.10 shows in visual form the answers on the questionnaire to a question about the appropriateness of their own language use (Question 5-2a "Do you feel you don't use Japanese properly?").



Note. 7 indicates they feel there is a great deal of inappropriate use of Japanese in daily life (Average: Male=4.60, Female=5.37, Total=5.00)

Figure 8.9 Sense of appropriateness of Japanese use as a general trend



Note. 7 indicates they feel they make many inappropriate uses of Japanese in daily life

Figure 8.10 Participants' perception of appropriateness of their language use

It can be seen that young people, particularly women, notice inappropriate use of Japanese on a daily basis and that they have some sense of attention to the appropriateness of Japanese language use. In regard to their own usage, compared to Figure 8.8, the results shown in Figure 8.9 are in general more moderate. While male participants generally feel they use appropriate language, female participants perceive more problems in their language use. Some people also consider their own lack of ability in Japanese language as a cause of inappropriate use of language, e.g., limited vocabulary, lack of conciseness and poor choice of expressions.

The major aspects they regard as inappropriate are as follows:

- Keigo (polite language)
- Kanji
- Abbreviations

- Cross-gender language (e.g., women using men's language)
- Too much application of long vowel articulation in the final syllable of words (私 as /wa ta shi i/, the last /i/ is unnecessary)

Keigo are a major area of Japanese language where people pay attention to appropriateness. Many participants raised the problems of Keigo use by themselves and others in communication. In particular, they regarded it as problem that younger people, particularly teenagers, cannot or do not use Keigo in situations where they should. At the same time, participants themselves noticed their own problems with Keigo use in talking with older people.

Keigo are context-dependent: people should know when they must use them in talking with whom and on what occasions. Keigo are currently used in basically two contexts: in discussions with seniors, and in business and other formal situations. The first issue with keigo is language ability itself: young people do not have a strong confidence in their ability to use keigo appropriately. The second is people's lack of any sense that they need to use Keigo where required. This is a society-related language issue: young people's non-use of Keigo is a reflection of changes in Japanese society where seniority structures have become weaker and where a greater number of friendly communications occur even though the interlocutors are seniors.

Kanji also account for a major part of difficulty in Japanese language. Some people voiced the opinion that the dissemination of word processing digital devices including Keitai affects their Kanji ability since they do not need to know how to write the target Kanji when inputting it on digital screen if they know certain other information about it, such as its pronunciation. The fact that they cannot write Kanji unaided gives them the sense of a problem in language use and of a bad influence on the appropriate use of Japanese.

The last three issues relating to abbreviations, cross-gender language and non-necessary articulation are things which participants noticed in people younger than themselves, such as teenagers. Abbreviations make the meanings of words or sentences unclear or cause confusion for those other than the people who are in the know, and these abbreviations tend to be seen as a problem since they are not in general use.

The second one can sometimes be seen today; in particular, the use of men's language by women is regarded as inappropriate (use of women's language by men may not be regarded as a problem of language use in theory if it is grammatically correct, but people feel it is strange anyway). Social changes also help to explain this one. The third one also can be seen in young people, and this characteristic appears very commonly in Keitai-mail. It is interesting that phenomena which occur in general use in Keitai-mail are sometimes regarded as problems of language use if they occur in general conversation.

Whether the points above are regarded as problematic or not depends on people's perspectives on language. Some think they are inappropriate; others put them down to the natural phenomenon of language change and therefore do not see them as a problem. One example of the perception of inappropriateness as being person-dependent is that inappropriate use of standard language is in fact a problem of language use, and therefore how people view this reflects their own values. Those who do not think irregularity is inappropriate have the idea that language changes to become more efficient and that people seek effectiveness more than correctness: it is acceptable if the meaning is properly conveyed even though the language use is not completely accurate. On this point, some argue that use of correct language requires concentration and that sometimes they unconsciously use language incorrectly.

From the discussion above, it can be seen that people's sense of the correctness of language is based both on language itself and on more social norm-related properties. Keitai-mail show non-standard language use frequently and in a sense Keitai-mail will boost the direction of use of this type of language property more than before. Social norms are also regarded as an important part of Japanese communication, and this too is a major influence. At the same time, Keitai-mail have their own unique politeness strategy (as discussed in Chapter 6) which sometimes clashes with polite language in general, such as decoration as a reflection of politeness, so Keitai-mail have a considerable impact on what is considered 'polite' in terms of language.

In relation to appropriateness, Figure 8.11 gives an overall picture of how participants feel about the difficulty of the Japanese language (Question 5-5a "Do you think Japanese is easy, or difficult? (7 indicates 'difficult')"). The high average scores (Male=5.83, Female=5.87, Total=5.85) shows that many participants feel the Japanese language to be difficult even though it is their native language.

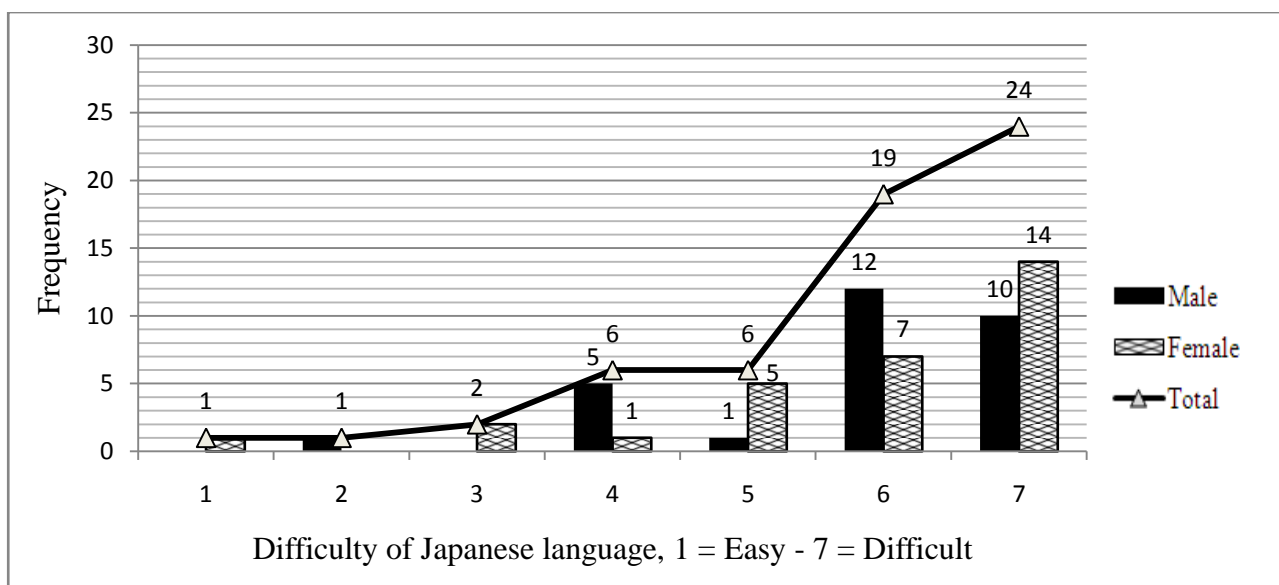


Figure 8.11 Perception of difficulty of the Japanese language

In addition to aspects mentioned by participants, one aspect of Japanese today that this study highlights is words written in Katakana. Either because they are loanwords from a foreign language or for the sake of emphasis in appearance, Katakana words are increasingly used in current Japanese and this study investigates how young people feel about this phenomenon. Generally, they do not have a particularly negative impression of Katakana words and also do not think the increase in Katakana words is a problem. However, they do feel the overuse of Katakana words which are not widely used to be a problem, since this interferes with comprehension of messages.

It was mentioned that overuse of Katakana words seems simply a reflection of too much dependency on their image as denoting intelligence and ‘cool’, and this can be further explained by the fact that the image of western loanwords as superior still lingers to a certain extent today. From a social viewpoint, some pointed out that the increase in Katakana words is a natural outcome of increased globalisation and international communication.

#### *Japanese language and outside sources*

Language use is influenced by external sources; current media have a great impact on it. Some participants suggested that TV has a strong impact on the inappropriate use of language. The media distribute new trends, including language, to listeners/viewers since popular comedians apply some irregularities in language for purposes of humour, and listeners/viewers are quickly influenced by this.

As a new medium, the Internet is influential in the lives of Japanese young people. The sites the participants frequently browse can be categorised into several genres: search sites (e.g., yahoo, google), social network sites (e.g., facebook, mixi), movie sites (e.g., youtube), information sites (e.g., weather forecast, google maps), shopping sites (e.g., amazon, rakuten) and blog sites both of famous people and of their friends. Keitai have become a medium for watching Internet sites, and 47 participants (approximate 80%) indicated that they browse the Internet via Keitai and receive written-based information to a certain extent. At the same time, participants also pointed out that the small moji size on the small screen makes it difficult or uncomfortable to read content.

As a source of literacy practice, reading is regarded as an important activity in improving language skills, and the younger generation is often said not to read enough books. Question 5-3a investigates this trend with the question “Recently, it is said that people have stopped reading written works. How often do you read a book (such as a story or history)? (7 indicates ‘many’)”, and Figure 8.12 depicts the answers.

The graph shows that young people themselves do not feel their reading to be as insufficient as the older generation has said. The questionnaire also asks how many books the participants read (Question 5-3b): on average, the male participants read 2.6 books and the female participants read

2.5 books in a month.

As for their perspective on reading books, many participants regarded reading as an important source for acquiring correct, accurate and even beautiful language. They mentioned that reading influences direct language skills such as reading, writing, use of Kanji and expressions. In addition, some also suggested that reading nurtures imagination and ability and cultivates knowledge.

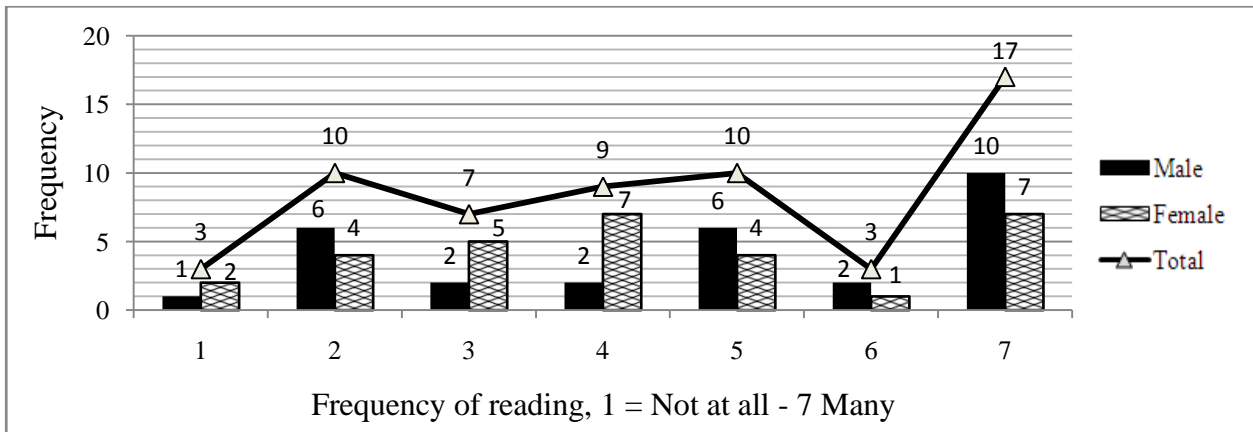


Figure 8.12 Frequency of reading books

The interesting thing seen here is that even though young people today are said to be a generation who rarely read books and their actual amount of reading may be small, they nevertheless have a sense of the importance of reading regardless of their actual reading habits in terms of printed books.

#### *Keitai-mail and Japanese language*

Finally in this section, participants' views on the influence of Keitai-mail on the use of Japanese language and on people's ability to write are discussed (answers to Question 5-7). Overall, the opinions vary along a continuum from Keitai-mail influences as significant to having no influence at all on language ability. Many participants, however, think Keitai-mail do have an impact on language abilities to a certain extent. One major influence they pointed out is the ability to use Kanji. Since Japanese mobile phones have a Kanji prediction system in text input, people can generate Kanji if they know how they are pronounced. This results in an inability to write Kanji by hand without a dictionary or loss of some Kanji they were able to write before without such references. Therefore, their ability to use Kanji decreases overall and this causes a problem when they cannot use Keitai or other references to support them.

Another possible influence is on overall ability in Japanese expression, which is decreased mainly for two reasons. Firstly, the composition of Keitai-mail is simple and relatively straightforward in expression, and people, particularly younger people who use Keitai-mail from elementary or junior high school, have become used to communicating using these simple



exchanges. Therefore, they do not have a chance to master the more complex language use which was learned in communication during normal life in the past: people's ability with language is kept to the Keitai-mail composition standard.

The other reason is that since Keitai-mail communication enables them to communicate conveniently on non-face-to-face occasions, this also decreases opportunities to talk in person. Language used in face-to-face and non-face-to-face communication, particularly spoken and written, is different, and in general communication in person requires greater consideration of interlocutors. In this sense, people who heavily depend on and become used to Keitai-mail communication alone may find their overall communication abilities limited.

Many regarded Keitai-mail as an influential communication medium in language use, particularly for younger people who have not yet mastered language ability to the standard levels set as educational goals. This is a strong indication that language use is influenced by this medium and that the language use and expressions occurring in Keitai-mail will be distributed or may even replace standard Japanese usage.

## 8.5 Conclusion

This chapter has discussed social factors relating to language use in Keitai-mail. Gender, age, and social roles differentiate use of Keitai-mail in this corpus in terms of textual components in Keitai-mail composition as well as genres exchanged. In terms of overall tendency, the differences arising from gender are quite obvious; the differences based on age are more influential than those from social roles, which can be attributed to Keitai-mail as a daily practice where people do not need language practices required in business or formal places. In addition, social practice with Keitai-mail shows that Keitai-mail have their own communication framework, and that Keitai-mail and other media are used differently based on the intention behind how senders want to convey their message, including extra-textual information which also can be sent differently by different media. As seen in the case of Nenga-mail, whereas Keitai-mail are conveniently used as a flexible, extended alternative to other existing communication practices in terms of timeframe and usage, such other communication practices are accorded increased value because of the emergence of Keitai-mail and their extended applications.

## Chapter 9 Discussion

This chapter discusses how the data collected depict Keitai-mail communication in relation to the research questions posed in this study. The research questions are as follows:

1. What are the characteristics of Keitai-mail, with particular attention to differences from Standard Japanese?
2. How do psychological functions (e.g., intra/intergroup psychology such as communication with friends or acquaintances, etc.) influence writing in Keitai-mail communication?
3. How does the technological interface of Keitai affect script use and other aspects of Keitai-mail?
4. How do different gender and age groups create Keitai-mail?

Here we review the objectives of each question for further discussion. The first question aims to investigate the characteristics of Keitai-mail, particularly the characteristics of the language used (Standard Japanese is used as the comparator to show characteristics specific to Keitai-mail). The literature to date has uncovered several features of language use specific to Keitai-mail, and this study analyses the extent to which these characteristics appear in its data corpus. A major aim is to discover the underlying reason why such characteristics occur.

The next three questions are more narrowly focused. The second emphasises the role of underlying emotions in Keitai-mail communication. Indicators of emotion in Keitai-mail, i.e., emoticons, are a major feature of this component, and this study's approach is to investigate this often mentioned but not really well understood aspect of Keitai-mail language and communication using a quantitative, data-driven approach. The third question relates to characteristics that arise from the nature of this medium itself. The specifications of the Keitai interface affecting the language used in Keitai-mail are the main interest of the study here.

The last question aims to move beyond the medium itself and shed light on how each user group uses and creates expressions differently in Keitai-mail. The outcome is an interrelation of social factors as well as basic influences from the medium, so that this question seeks to capture contemporary language trends. Whereas earlier studies have either taken a mainly descriptive approach or have been based on small-scale empirical data, this study has analysed a large and rich corpus of quantitative data in order to draw out some of the salient characteristics of language and communication among young people.

As a reminder, the underlined technical terms indicate Fairclough's criteria for DA in order to differentiate between the general and technical uses of the terms in the following discussions.

## 9.1 Research question 1

The data obtained show the following characteristics (as discussed in Chapters 5 to 7) which relate to the answer to research question 1, What kind of characteristics does the discourse of Keitai-mail show, in particular, compared with standard Japanese?:

### *General characteristics*

- Keitai-mail are short compositions (an average of around 40 moji including a few other symbols).
- Only a few genres occur in a single text (one to four in general).
- The information participants exchange is basically to do with daily topics relating to everyday life.
- In addition, they also usually talk about themselves in conjunction with other topics (i.e., people prefer not to talk about themselves alone).
- Japanese culture and the general disposition of Japanese people affect the use of Keitai-mail, but Keitai-mail do not supplant previous means of communication: rather, they provide an extra channel of communication even though they seem to be merely a medium situated somewhere in-between pre-existing communication media.

### *Typical characteristics in comparison with standard Japanese*

- Emoticons are sometimes used as replacements for words, but not often. They are used only when more effective in composition than writing with the standard scripts would be.
- People use long vowel symbols and small vowels in unorthodox fashion (which are in particular not normally used with Hiragana based on the rules of standard Japanese), but at the same time, the use of these symbols in addition to irregular use of vowels is a frequently occurring phenomenon in the Japanese language and is not simply random.
- Young people do add some distinctive features (which also depart from the normal rules), but overall they prefer to write simply and the patterns used are quite limited.

Chapter 6 discussed in detail the characteristics of Keitai-mail in comparison with standard Japanese: Keitai-mail include conversions of syllables such as Kanji to Hiragana/Katakana as well as language plays (LP) applied in particular to vowels. In the present chapter, the language of Keitai-mail and that of English-based SMS as described by Hård af Segerstad (2005, p. 37) are compared in order to illuminate the characteristics of language use in Keitai-mail as a Japanese writing-based medium which is similar to but different from SMS. Hård af Segerstad has pointed out 16 characteristics of language in SMS, some of which correspond reasonably well with those of Japanese Keitai-mail while others show differences.

*Characteristics of SMS found also in Japanese Keitai-mail:*

- Shortenings, contractions and other clippings (note: G-clipping is not applicable in Japanese)
- Acronyms and initialisms
- Letter/number homophones
- 'Misspellings' and typos
- Non-conventional spellings
- Accent stylizations
- Omission of punctuation and word spacing
- Exclamation marks and question marks
- Emoticons (or smileys)
- Capitals or small letters only (whole messages)
- Substitution of long words in native language with shorter foreign ones

Shortening efforts (including homophone use) and emoticon uses are frequently seen in Keitai-mail. The use of exclamation marks and question marks also occurs quite often. On this point, Hayashi (2007) notes that the use of an emoticon as a replacement for a word or words occurs sometimes in Keitai-mail; this is a feature found only in Japanese Keitai-mail. The data for the present study show, however, that this does not occur frequently and occupies only a small proportion of total emoticon use observed. It can therefore be said that people only use this method in places where it actually improves the effectiveness of physical input into a discourse.

'Capitals and small letters only' equates to frequent use of small moji in Keitai-mail. It is not often that all moji are converted to small moji, but some participants do make heavy use of small moji in Keitai-mail, and these messages have a special eye-catching effect because of this (even though this is not always regarded as positive). Non-conventional spelling and other patterns such as use of long vowel symbols are also major characteristics of Keitai-mail.

In relation to these characteristics, there is some evidence that expressions in Keitai-mail are strongly influenced by the phonology of language. As described in Sections 6.4 and 6.5, phonology is reflected in Keitai-mail, in particular in the use of vowels, some of which are used more and others less often. As discussed in depth later, some researchers (e.g., Miyake, 2002; Tsuji, 2003) have mentioned ways in which Keitai-mail resemble spoken language and how this both influences and restricts the uniqueness of language use in Keitai-mail.

On Hård af Segerstad (2005)'s list, some characteristics such as misspelling and typos are found in Keitai-mail but not to a significant degree. This is because users benefit more from the predictive conversion system than from unexpected input through the interface, since the conversion system indicates the correct input, and as a result, overall, incorrect language input in Keitai-mail features less than or at least no more than in other communication written without such assistance.

*Characteristics of SMS which are not a special feature of Japanese Keitai-mail:*

- Deletion of subject (especially subject pronoun)
- Deletion of preposition, article and possessive pronoun
- Deletion of copula-, auxiliary- or modal verbs (+XP)
- Deletion of Verb and Subject pronoun; Telegram style
- Inflectional endings reduced

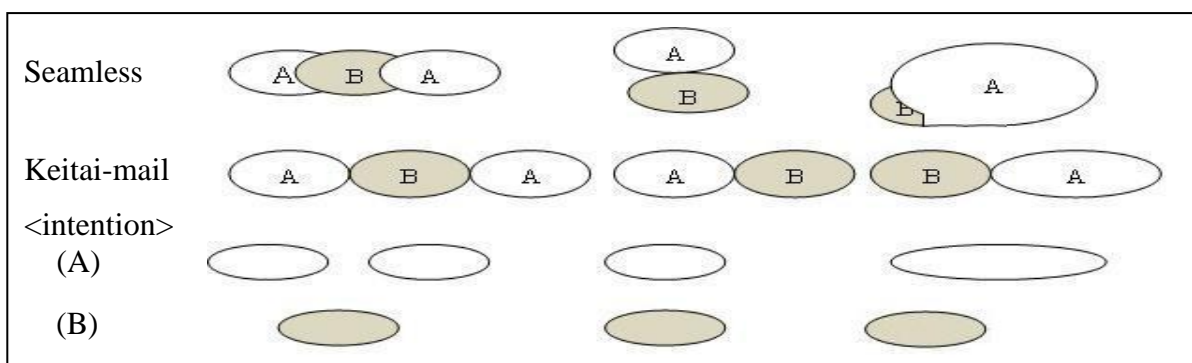
The characteristics listed here are found in Keitai-mail as well, but the Japanese language itself has a tendency to omit many aspects of syntactic features found in other languages, e.g., the grammatical subject, particularly the pronominal subject (Tsujimura, 2007). Therefore, the characteristic of deletion here is not attributable to the nature of Keitai-mail but is constrained by the grammatical rules of the Japanese language itself, as opposed to other languages such as English where, e.g., omission of the subject is not a normal feature of the syntax. The characteristic most in need of analysis is the deletion of prepositions. This can be equated with deletion of particles in Japanese. Particles are often omitted in Japanese, particularly in spoken communication (Mihara, 1997). In addition, Xu (2007) points out that the omission of particles is contingent on closeness in a relationship: the closer the relationship, the more people omit particles. Therefore, such omission is a reflection of social practice rather than being a mode of communication particular to Keitai-mail. In addition, although particles tend to be omitted, the omissions are within the syntactic rules of Japanese. Japanese people do not omit particles if they are necessary in language production in order to avoid sounding strange and unlike a native speaker. The data analysis conducted in this study was not able to determine conclusively whether Keitai-mail feature a degree of omission that is greater than the norm.

One important point Lee (2002) notes is that the deletion of particles occurs mainly in oral communication and is limited in written language. In that sense, the level of omission in Keitai-mail exchanges functions as a marker of whether people regard Keitai-mail as a written-based or spoken-based form of communication; the existence of omission means that people incline more to a sense of Keitai-mail as an oral communication mode rather than as purely written communication.

As for the mode of Keitai-mail, they play a role in daily and non-serious communication, but at the same time they also have a place in cultural communication such as in the example shown in Section 8.3 (Nenga-mail). Of course, such cultural communication is a part of daily practice and it is not surprising that Keitai-mail are used. However, as the data show, people feel a sense of special occasion in cultural communications of this sort and they accordingly put extra effort into constructing their discourse. Keitai-mail are thus additive rather than subtractive in cultural terms. This shows that Keitai-mail and paper-based letters are different communication media and that people therefore adopt a different mode in discourse composition when using each.

Further to the topic of the mode of Keitai-mail, as this study's results show, Keitai-mail are more likely to form a framework of language use and communication which has wider applications than being merely a substitute for other media. The co-existence of Nengajō and Nenga-mail as two alternative New Year greeting methods is one direct example of how Keitai-mail cannot be categorised as a mid-point between existing media. In addition, as the questionnaire data show, young people use Keitai-mail, phone calls and letters as different media with different properties. In particular, although Keitai-mail and a phone call using a Keitai are made using the same device, they are used differently not only as occasion demands but also in what they do and do not convey.

To discuss this from the perspective of turn-taking (CA): Amasa et al. (2004) report that Keitai-mail have the characteristic of demanding an immediate reply, or at least the expectation of an immediate reply, since as Fujimoto (2006) points out those who exchange Keitai-mail are carrying their Keitai on their persons. The turn of utterances is therefore only controlled by the current sender. In other words, it is what Amasa et al. (2004) call 'sender-centred communication'. This means that Keitai-mail allow users to create a composition which has a certain conclusiveness of discourse. Therefore, unlike other seamless communications such as chatting or a phone call, turn-taking by current recipients (as mentioned by Worffitt, 2005) does not occur in Keitai-mail. As Figure 9.1 shows, this means that, although it is possible that both users could send and input Keitai-mail at the same time, the discourse of each sender will be concluded without interference from the recipient in terms of the level of text composition.<sup>56</sup> In other words, using a CA approach, both speakers have the initiative in turn taking and in constructing the architecture of interaction. This conclusiveness of composition in (potentially) immediate exchanges is a particular property of Keitai-mail and this mode possesses various specific characteristics which distinguish it from other pre-existing media.



*Note.* Overlapping ovals indicate incompleteness of utterance.

Figure 9.1 Timing of utterance in seamless media and Keitai-mail

<sup>56</sup> This also does not mean the sequence of dialogue is also not interfered with. When speaker A receives a message from speaker B during his/her composition of a message, this message from speaker A may cause a change or lead to cessation of that message, meaning that speaker A takes a different action from his/her original plan.

As the reflection of sound information in Keitai-mail text shows, the characteristics of Keitai-mail are heavily influenced by oral communication. Tsuji (2003) describes this as consummatory characteristics, and the emoticons of Keitai-mail derived through the data obtained in this study provide quantitative evidence for this. For example, the average length of Keitai-mail is at best 40 moji, which generally contains few genres (at best, four in a text) along with several emoticons and other symbols. This means the content itself is as short as turn-taking exchanges in oral communication.

This communication style is regarded as 'intentional' (Bunkachō, 2004) to a certain extent, but it might be more appropriate to say that the language and communication appearing in Keitai-mail are the result of 'natural' behaviour which basically does not require special attention to the form of language and composition. However, as noted, since the main partners in the interaction are usually known and close to each other, they also pay a certain amount of attention to creating interesting texts (as suggested by Miyano and Kotera (2004)). These efforts go beyond grammatical correctness or appropriateness of composition (e.g., the correct use of Keigo, or of appropriate particles). The opinions from this study's data reflect this tendency. The characteristics Horasawa (2005) discusses are widely found in the data corpus, but as the analysis in Chapter 6.4 shows, the 'uniqueness' is used in a limited and systematic manner. Users' main motivation is to create an interesting message without interfering with effective communication, in terms of their burden of composition as well as of the interlocutor's understanding.

Further to the literacy aspect, Romaine (2000) points out the restrictiveness of written language in comparison with the spoken form, but Keitai-mail utilise the flexibility of spoken language through non-standard ways of written expression. At the same time, unique uses of language are also self-limited internally so that too extreme usage does not occur. This characteristic is also true of Wakamono-kotoba in general (e.g., Miyake, 2002).

Barton (2007) refers to the longevity of written language and this property of written language helps to retain spoken and non-verbal language in a certain systematic manner. A fundamental underlying motivation is effective communication: how to maximise the message conveyed, including emotion and atmosphere. A traditional view of maxims of communication (Grice, 1975) focuses on the quantitative, the qualitative, the relational and the preciseness of utterances. Keitai-mail seem to include many violations in terms of language use itself, since there are many ungrammatical and extra components if we consider only standard Japanese writing practices. However, these additional components function as powerful conveyers of meaning which add non-verbal information. A difficult aspect of Keitai-mail communication is that the appropriateness of content is context-dependent, in order to be effective between certain people acting under certain communication norms. At the same time, visualisation can cause some

confusion for recipients when the imagined picture and the picture displayed do not correspond (Iseki, 2010). An example case is:

M: 😞

F: えええ👉なんでその絵文字? 😞

[F: Oops👉Why do you use this Emoji? 😞]

This very short exchange (in CA terms) clearly shows that the second speaker was upset because the message of the Emoji was different from the message she expected. In other words, the emoticon causes a violation of adjacency pairs, which further results in a decrease in mutual intelligibility. Thus, emoticons entail a fundamental risk of miscommunication which cannot be dealt with by any kind of standardisation.

Therefore, Keitai-mail are a highly context-dependent literacy practice, and any ‘uniqueness’ of language which characterises an element of style therein is simply a natural application of language to suit this particular communication mode. Naturalness of communication gives rise to unformulated aspects which involve some uncertainty as to their appropriateness. In that sense, non-conventional aspects of language use in Keitai-mail (e.g., irregular use of the five scripts) are a natural part of language use for Japanese people, but are also not formalised or standardised since expectations of conformity with the official conventions are too widespread.

To sum up, Keitai-mail are short: the average length is 40 letters. The average number of genres contained in each mail is 2.4. The data show that Keitai-mail are longer texts than the very truncated messages which occur in the totally seamless text communication of Internet chat. The average number of emoticons used, 3, corresponds to the average number of genres found when we consider that almost all sentences in Keitai-mail are concluded by emoticons. In addition to emoticon use, Keitai-mail include several types of LP such as conversions of script types, irregular size of some scripts, and use of long vowel syllables. Basically, simple applications of LP are chosen and LP follows standard Japanese linguistic conventions, as can be seen in the pattern of vowels substituted in LP. From these points, Keitai-mail can be seen as brief but reasonably complete messages, and the LP used, although they permit creativity in expression, are not too different from standard language forms, meaning that messages can be successfully understood, i.e., they fulfil CA’s criterion of mutual intelligibility.

## 9.2 Research question 2

This section discusses research question 2: How do psychological functions (e.g., intra/intergroup psychology such as communication with friends or acquaintances, etc.) influence writing in Keitai-mail communication? The data and analysis indicate the following characteristics related to psychological factors as underlying motivations in language use and Keitai-mail



communication.

- Keitai-mail are seen as easy communications using a casual mode.
- Emoticons are actively used as a reflection of senders' emotions directly and indirectly. However, the emoticons frequently used show a pattern: senders prefer to use only a small set of emoticons for most Keitai-mail communication.
- The use of emoticons induces feelings based on the relationship with the interlocutor, which functions to control distance with them as well (one of the psychological aspects of emoticon use beyond conveying merely their simple surface meaning).
- People have different perspectives on the timing of replies (turn-taking) – some expect an immediate reply and others do not.
- The type of message young people regard as appropriate for Keitai-mail is basically more limited than the messages they would convey by a phone call.

In analysing emotion in the creation of Keitai-mail, emoticons are a major source of information because of their function of conveying extra-textual emotional messages to recipients. This can be seen as a substitute for facial expression in Keitai-mail as Kato et al. (2007) suggest. The discussion below concludes that, in line with Uchida (2004), emoticons make communication smoother through the function introduced by Tachikawa (2005), namely that of improving the clarity of what senders want to convey. In other words, as an extra-textual message conveyer, the application of emoticons used as a substitute for facial expressions or body language is a general style of Keitai-mail.

In general, both past studies (such as a 2004 Bunkachō survey of language attitudes) and the present study (see results in Chapter 6.3) agree that Keitai-mail are used for casual communication which mainly occurs within a relaxed and intimate relationship. This is the basic psychological foundation of Keitai-mail communication, and language and exchanges are chosen accordingly.

As has also been reported in earlier studies (e.g., Nishimura, 2003; Tachikawa, 2005), almost all sentences in the Keitai-mail collected for this study conclude with emoticons instead of the formal Japanese full stop ‘。’. In comparison with the use of emoticons as word replacements (which mainly occurs in the middle of sentences) shown in the previous section, the use of emoticons to represent emotions accounts for most occurrences. This can be interpreted further to mean that among several choices of location where emoticons are added, their insertion at the end of sentences indicates that they are regarded as having a supplementary function, representing emotions only after a message has first been expressed in language itself. At first glance, this reflects the situation

discussed by Ono & Tokuda (2005), namely that emoticons carry a positive image for young people, and this explains the frequent use of emoticons by young people revealed by the present study's questionnaire data.

Keitai platforms contain large sets of pre-installed emoticons (particularly Emoji), but people tend to use only a small subset of these frequently in composition. The data show that they prefer to use emoticons which involve a more abstract picture rather than actual pictures of faces. For example, a splash of sweat (💦) and shining (✨) are preferred: the former indicates something negative, the latter something positive. Compared to other Emoji which actually show a face (e.g., 😊), these Emoji can express a wider range of feeling, so they are easily applied in texts with the expectation of less misinterpretation. In other words, in CA terms, this can also be seen as a conversational technique to fulfil conversational expectations which interlocutors will have, as opposed to the case of violation of adjacency pairs discussed in the last section. Naturally, therefore, they are often used in Keitai-mail.

The nature of Keitai-mail as context-based communication is seen in the use of language itself as discussed in the previous section, but the underlying motives investigated in this study also provide additional evidence to support this property. As the example texts in Chapter 7.3 show, people sometimes write messages about the same thing in a different manner based on their relationship with interlocutors, e.g., they change register, using Keigo instead of casual language with emoticons.

Context-based communication relates to the relationship between exchange partners. Riviere and Licoppe (2005) categorise types of interlocutors into three groups: 1) family members and close friends, 2) friends of less frequent contact or who are less close, and 3) acquaintances. These relationships decide the register of language. In terms of linguistic means, Keitai-mail also fit this categorisation; emoticon uses, on the other hand, do not. Basically, the closer the interlocutors are, the more people tend to use emoticons. In addition, Keitai-mail from close friends without emoticons makes the recipients think the sender is displaying distance, coldness, lack of interest or even anger, as suggested by Ono and Tokuda (2005). As a result of this lack, recipients therefore also feel anger or sadness (Kato et al., 2006b). In other words, evaluation of the desirable/non-desirable in composition depends on the interlocutors, not solely on the property of the medium itself.

The texts as reflections of senders' psychological states are further discussed by Kadono and Hishimoto (2009) as ultimately showing that the pattern of composition reveals what kinds of emotions they had in creating Keitai-mail. Therefore, the phenomenon above can be discussed as showing that the sense which enables people to associate interlocutors' underlying motivations and thoughts in texts will then in turn stimulate some feelings in the recipients. In that sense, the use of

emoticons in order not to induce negative emotions can be seen as negative politeness strategies (Miyake, 2003b), in the same way as Miyake found in 2003 that Japanese young people internalise the conventions of the Japanese culture which suggest that people should avoid causing negative feelings by inappropriate language uses.

This phenomenon is also described as people using emoticons as a device to enhance a relationship since they know both the positive impression given by Keitai-mail with emoticons (see, e.g., Miyake's 2002 report) and the negative effect of a lack of emoticons on a feeling of closeness. They can control the relationship, or at least give an inference of the relationship they have with their interlocutors, through the extent to which they use emoticons. This is one reason Keitai-mail are highly context-dependent. Senders need to be aware of the amount of emoticon use appropriate for exchanges.

One interesting exception to the linear relationship between closeness and number of emoticons found in the corpus is Keitai-mail sent to family members, which are quite flat with few or no emoticons or even punctuation. In these cases, senders do not use emoticons where they do not have to. This indicates a feeling of tiredness in using emoticons requiring extra input – otherwise they would be willing to use them in a relationship without consideration for language use (in a relaxed state of mind). This can be further interpreted as showing that emoticons are deliberately used in non-family messages to increase the effectiveness of communication in other situations where it is perceived as appropriate.

This is similar to Fujita (2002)'s contention that a written form of language constructs the identity of a group: the language of Keitai-mail also seems to contribute to identity formation in younger people through the irregular use of language. However, at the same time, 'young people' users of Keitai-mail cannot simply be categorised into one generation, and many types of identity exist. For example, some opinions reported in this study show that too much use of peculiar Japanese in Keitai-mail induces annoyance, and that those who create such texts filled with irregularities are judged to be stupid and extreme clowns even though the senders and recipients are of similar age. At the same time, others see cuteness and friendliness in these irregularities. As for the use of small moji in irregular places, Gottlieb (2011) notes that this is done with the intention of adding cuteness to the message. All this is a reflection of style as a representation of identity: writers apply an image or description to characterise the personality they have or even that they want to have. Some of the participants in the present study agreed and actively applied this form, while others disliked it when others did this and expressed their frustration about having to read such expressions. This latter shows that those who do not accept such expressions interpret the representation of identity in a negative way; evaluation of to what extent the expression is desirable is important in order to convey the message that the senders intend.

The phenomena above indicate the nature of the literacy practice of Keitai-mail as a highly context-based practice, as is also seen in the answers on the questionnaire that indicate that people are highly sensitive in their language use based on who their interlocutor is (see Figure 8.4). This reflects how they handle a message based on who their interlocutor is in order to communicate appropriately.

The mode people feel Keitai-mail to be also relates to their Keitai-mail practice. Some scholars (e.g., Amasa et al., 2004; Fujimoto, 2006; Hayashi, 2007) argue for the semi-synchronicity of Keitai-mail communication as Keitai-mail are expected to be replied to as soon as possible. In the data on actual practice disclosed, the reason for non-immediate reply was found to vary widely depending on the person. However, there would be consensus in Japan that failure to send a quick reply to a Keitai-mail is excusable if there is a good reason for it. If interlocutors do not accept the reasons given, the practice would be regarded as rude (as reported by Fujimoto (2006)) and in these cases Keitai-mail become sources of burden in communication between the pair as a result. This semi-synchronicity influences how people think and behave in their Keitai-mail practice, and this is an underlying motive in how they compose their message as a reflection of their conscious/unconscious thoughts about what is appropriate based on this timeframe, e.g., phrases of apology for the delay should be stated.

Moreover, as Kato et al. (2006b) discuss, even though Keitai-mail can be regarded as synchronic rather than asynchronous communication, people expect messages not to be too abrupt, otherwise they receive a negative impression of the message and of their interlocutor. In this regard, the data show that the average length of Keitai-mail is actually 40 moji, more than could be expected in abrupt messages, and half of them consist of two or more genres. This reflects these expectations.

It can be also shown that, even though both phone calls and e-mails using Keitai are context-based, people tend not to use Keitai-mail when conveying important matters, preferring to make a phone call instead. This is a reflection of the complex nature of Keitai-mail, in which the perception of mode and the expectation of content are different. In other words, the discourse of a phone call can be adjusted immediately since it is synchronous, but it is more difficult to do this with Keitai-mail because of their nature, and people tend to avoid Keitai-mail exchanges involving some sensitivity in order not to convey an unintended message to interlocutors.

To summarise this section, Keitai-mail are generally regarded as a casual and easy communication method which is suitable for the exchange of less significant matters than is the case with other media such as phone calls or letters. At the same time, the norms and uses of Keitai-mail practice vary from person to person and situation to situation and appropriateness of communication is differentially defined (evaluated) between different people, so that Keitai-mail

are therefore very much context-dependent communication. For instance, the use of emoticons or irregular small letters is regarded as an interesting decorative touch which increases cuteness and creates a feeling of warm communication by some participants, but others prefer not to use them because they think that significant irregularity in language use projects an image of immaturity or even stupidity. Styles lead to a certain presentation of identity. In either case, people try to realise effective communication with particular interlocutors using the techniques available to them; in particular, LP and extra-textual components (including phonological and body language aspects involved in Keitai-mail) are actively applied and used as essential conveyors of emotion and atmosphere in the same way as facial expressions are used when talking in person. The lack of them results in sending a negative message to interlocutors. Therefore, Keitai-mail creation involves more than the level of fulfilment of the mutual intelligibility requirement of just understanding the meaning of a message expressed in language alone.

### 9.3 Research question 3

Mention of several characteristics relating to the interface structure was found in the data, and this section discusses these findings in order to answer research question 3: “How does the technological interface of Keitai affect script use and other aspects of Keitai-mail?” To discuss technological influences on Keitai-mail, we need to distinguish two different types of factors which influence language practice: 1) restrictions imposed by the Keitai specifications and/or critical limitations found on Japanese mobile phone systems which users must (or at least are highly recommended to) follow to create a message; 2) factors relating to specifications or norms of communication practices in general which encourage users to create a text in a certain way.

For example, 1) means that since Japanese Keitai are not able to input language X, users must forget about using language X for composition and need to choose the languages which the platform provides. On this point, the specifications of Keitai, including limitation by Keitai-mail input platform, and cost are influential factors. The specifications in particular are critical because people cannot create a text outside the rules of the system. Previous studies (e.g., Sasahara, 2002; Katayama, 2002) have attempted to illuminate the characteristics of language in Keitai-mail in comparison with PC e-mail. Sasahara (2002) focuses on the limitation of the length of texts; Katayama (2002) suggests the immaturity of the conversion system. When we analyse current Japanese Keitai-mail services, we find that this restriction has almost disappeared since short mail (i.e., SMS) is rarely used in communication in Japan today. The enhanced prediction system decreases the ratio of wrong conversions and texts which formerly resulted from the restrictions people then experienced. However, people today also apply techniques to shorten texts, such as using abbreviations, in order to make inputting texts easier, even though this former limitation of

the Keitai no longer constrains them.

As for Kanji, Sasahara (2002) points out that Kanji are used often in order to decrease the number of moji in a message, such as writing わたし (I) as 私 (see Chapter 1.5). In today's Keitai-mail, with practically no restriction on the length of text, to find Kanji that are not used in general in handwriting, such as a high proportion of non-Jōyō Kanji, would provide evidence of the survival of this tendency. The present study's data, however, only include a small ratio of non-Jōyō Kanji and participants did not use difficult or unfamiliar Kanji even though the conversion system is able to suggest them. Participants thus did not show a particular willingness to use Kanji as a means to save space in texts, or as a way to increase effectiveness of communication. Some words which are normally written in Kanji are written in Hiragana or Katakana in the corpus, but such conversions with the purpose of LP are not a dominant tendency. Rather, the use of yomigana can be attributed to a matter of image or to the atmosphere of the text itself. These characteristics are actually a part of style in Keitai-mail.

The issue of whether to input as Kanji or Hiragana is not a matter of concern with current Keitai since the conversion system also predicts possible words in the middle of input for both Hiragana and Kanji and if message composers use a particular pattern once, that pattern is then remembered as a high priority which they can later use again quickly and easily (Katakana input requires more effort and, as it is the convention in Japanese to use Hiragana for yomigana, Katakana conversions are not often found). Therefore, issues relating to the impact of conversion on language use have shifted from technical matters to stylistic matters: how users create a text to reflect their own intentions even though it is an ordinary e-mail message (i.e., the sender does not have any particular intention of making the text very interesting or eye-catching). In other words, the specifications of Keitai-mail do not now impose limitations on messages, and this allows users to focus more on content and presentation.

As for 2), although Keitai provide a platform to input the Alphabet (English-based), as Yamanishi (2007) reports, people tend to avoid using this because of the input burden involved in doing so. In this regard, the present data include 912 Keitai-mail (1.7% of total collected mail) written in western Alphabets, but these compositions are written entirely in the Alphabet, indicating that people have needed to use it in order to communicate with a certain interlocutor, who has difficulty in understanding Japanese or whose platform cannot display Japanese properly. Other than these, use of the Alphabet is quite limited and some foreign words are written in Katakana or even Hiragana. This can be a matter of input as well as the ease of Hiragana/Katakana input itself, since some foreign words (such as greetings) are registered in the conversion system.

As for technical perspectives on the use of emoticons, Ono and Tokuda (2005) argue that the creation of emoticons (author's note: 'emoticons' in their study basically means Kaomoji, since

they are created using combinations of pre-set moji) is intended to increase expressive ability. This could be correct when reviewing the function of emoticons as discussed in the previous section. However, this study's data do not provide evidence of such original emoticons, indicating that current Keitai come with a sufficient number of emoticons including Kaomoji templates already installed, so that it is now rare to create Kaomoji emoticons from scratch to increase expressivity. Instead of creating original emoticons, downloading Decome Emoji is the current way of adding expression; however, this is not done in order to add extra expressivity by using pre-set moji but rather to provide extra interest based on the non-familiarity of the pictures. Therefore, this phenomenon also underlines the importance of technological developments in changes in communication practices.

The discussion above focuses more on the detailed specifications which influence language practices. We now shift to discussion of the interface of the technological aspects of Keitai on properties of Keitai-mail as a whole. Firstly, as Hayashi (2007) points out, the fundamental nature of Keitai-mail as a communication medium is that they are an anywhere-anytime text communication tool. Thanks to the nature of the technology as a mobile device, this gives a certain sense of separation from the physical space of social life and its restrictions (Ito & Okabe, 2005a). People can communicate with someone virtually wherever and whenever they wish, and as Uchida (2004) argues, this property results in the decontextuality of Keitai-mail communication. This can be seen in Keitai-mail as a whole, but Nenga-mail (New Year's letter exchanges via Keitai-mail) offer a particularly clear example of this characteristic. Because they are physically released from the restrictions entailed in composition of a paper-based Nenga letter, people can send such messages anytime they please. This also further causes the phenomenon that people send Nenga-mail even after New Year has passed, thus ignoring the context of Nenga exchange practice. Senders also use the convenient property of Nenga exchange as an opening device for effective communication. This may happen because of the specifications of Keitai-mail, and is a visible example of a new way of communication through a new technology.

Another aspect of Keitai-mail as written communication enabled by Keitai technology has been found to be their influence on the topic of exchange. Tomari (2004), Uchida (2004) and Ikemoto and Shimoi (2006) note that Keitai-mail are an easy way to communicate what senders feel is difficult to say in person/a phone call, because their interlocutor is not present. The data for the present study show that overall, participants do not seem to set much store by this property in their communication. Female participants, however, do have a relatively stronger sense of the advantage of non-face-to-face communication using Keitai-mail as a medium to discuss a wider range of topics than with other media: half of the female participants answered that it allows them to communicate more. Therefore, this non-face-to-face property of Keitai-mail can expand

communication to a certain extent, but may not be an aspect of Keitai-mail by which everyone is automatically and conspicuously affected. It is an aspect of the conversational nature of Keitai-mail which affects the psychology of messaging.

The second fundamental specification of Keitai-mail is as 'electronic media'. Therefore, it is useful to discuss here what Sosnoski (1998) suggests as *hyper-reading* in relation to how people read a text displayed on the screen (i.e., reading written-based electronic media). Hyper-reading, as discussed in Chapter 2, involves eight criteria:

Filtering: a higher degree of selectivity in reading

Skimming: less text actually read

Pecking: a less linear sequencing of passages read

Imposing: the reader's cognitive frameworks override the text's

Filming: the "... but I saw the film" response that implies that significant meaning is derived more from graphical than from verbal elements of the text

Trespassing: loosening of textual boundaries

De-authorizing: lessening sense of authorship and authorly intention

Fragmenting: breaking texts into notes rather than regarding them as essays, articles or books (pp. 135-136)

Since Keitai-mail have quite similar root properties to Internet text, it is worth discussing them in the light of these criteria. First of all, the Keitai itself allows users to browse the Internet. This means that people naturally respond to the content of Internet sites displayed on their Keitai in a way similar to hyper-reading. As noted by Kohiyama (2005) and Matsuda (2005b), Keitai-mail fundamentally involve Internet use and hyper-reading is therefore already a natural part of communication via this medium.

However, in doing so, participants encounter specifications-derived problems which make it difficult for them to read content, such as small letter sizes, non-optimisation of design of pages, slow display and loading, and difficulties in controlling content because of small screen size, the ability of Keitai as a computer, and the infrastructure of wireless Internet via the mobile Internet network. These aspects of reading on the Keitai screen are seen to be reflected in the creation of Keitai-mail and people try to avoid difficulties arising from these limitations since they interfere with the effectiveness of communication.

*Trespassing*, or loosening of textual boundaries, is relevant to the text characteristics of Keitai-mail content. Keitai-mail basically consist of a paragraph; if we say that a paragraph in organised composition is a boundary of text discourse, then Keitai-mail already have this property since people do not separate their text into several paragraphs even if that might normally be necessary in terms of the standard rules of writing. As for *fragmenting*, Keitai-mail are basically short compositions accumulated by communication partners. If a whole set of exchanges is seen as a complete text, each exchange will be a fragment of this. In a few cases where the data show that



senders composed a very long text, it is easily predicted that to these long texts can be applied the technique of *filtering*, selective reading. Judging from participants' opinions about selective communication based on their interlocutors, filtering is not limited to long compositions alone: people apply selective reading depending on length, content, and context with interlocutors.

If we define a linear sequence of passages in exchanges as synchronous continuity as seen in face-to-face communication, then whether *pecking* occurs depends on both the communication issues involved in how each person sends a message and also the technical matters involved in how each person receives it. In this sense, when considering the widely accepted nature of people's sense of replying practices based on interlocutors and contexts, it is also common that exchanges are rather non-linear because of interference from others and the surrounding environment.

The criterion of *imposing* also suggests that Keitai-mail are context-dependent as discussed throughout this chapter: readers' sense of the norms and of the distance between them and their interlocutors comes into play when they decide the register and appropriateness of communication. However, *de-authorizing* is also persuasive, since Keitai-mail are regarded as a casual and easy communication medium through which people convey relatively non-significant information. This can also be seen in the data: people tend to mention at the beginning of the text that it will be a long message, and in these cases they pay more attention to their writing. In this sense, it can naturally be seen that people do not have a special sense of their Keitai-text composition as creative work in the same way that they do not feel a phone call to be a presentation or a speech.

It is difficult to say whether *filming* occurs with Keitai-mail since the manner in which people react to messages through texts and graphics in an average Keitai-mail is not revealed in this study; rather, the present study suggests that emoticons have a supplementary function in adding or clarifying textual meaning. However, Keitai-mail are certainly clearly replete with non-textual components such as emoticons. In addition, LP involving long vowel symbols and irregular use of small moji are graphical uses of moji, and replacements of moji type (e.g., Kanji with Hiragana) are attempts to use this high transferability of visual information through eye-catching effects of irregularity and image of each moji type. Therefore, people have a sense of images as effective devices for conveying meaning over and above that of the textual message, and their use and creation of ways of presentation involving extra graphical information seem a very natural phenomenon in achieving effective communication.

One additional point suggested by this present study, to add to what Oe (2007) suggests as the difference between letters, PC e-mail, and Keitai-mail in usage, is that people have a sense of CMC as non-heart-felt communication. Even though the messages in letters and e-mail may be the same, paper-based letters (handwritten) carry with them a sense of consideration, seriousness, openheartedness and sincerity, and people feel happier when receiving a paper-based letter. This

means that Keitai-mail are not a medium viewed in the same way as letters; they are less regarded as heart-felt communication because of their convenience. From another viewpoint, the emergence of electronic-based written communication, in particular the widespread use of Keitai-mail, may lead to a re-evaluation of the value of letters and recognition of their intrinsic properties in comparison with Keitai-mail or other electronic media. In any case, 'electronic' gives a different framing from 'paper-based' to the perception of its value, even though function and textual content are similar, and these differences make for different usages and language practices.

As shown above, the increasing convenience of the Keitai input system allows users to enjoy composing messages without consideration of limitations, and this further entails a property of language appearing in Keitai-mail, namely that the texts are the result of more natural communication than before as a reflection of users' desire to convey both textual content and symbolic meanings. At the same time, the high capacity for expressivity in Keitai-mail also illuminates their difference from non-electronic paper-based media such as letters.

#### 9.4 Research question 4

Gender and age differences (as the lack of an underline shows, differences here indicates the more general meaning of differences between groups rather than Fairclough's use of the term) are quite clear from the results discussed in Sections 8.1 and 8.2, and this section compares those results with the earlier literature in order to analyse research question 4, "How do different gender and age groups create Keitai-mail?" Previous studies (Hamada, 2007; Kurosumi & Fukuda, 2005; Tachikawa, 2005; Yamanishi, 2007) report differences shown in Keitai-mail composition by men and women: female senders tend to create longer texts with more emoticons, and female recipients tend to receive longer texts. The much larger data corpus of the present study quantitatively provides powerful evidence that these tendencies can in fact be found widely and ubiquitously in Japan.

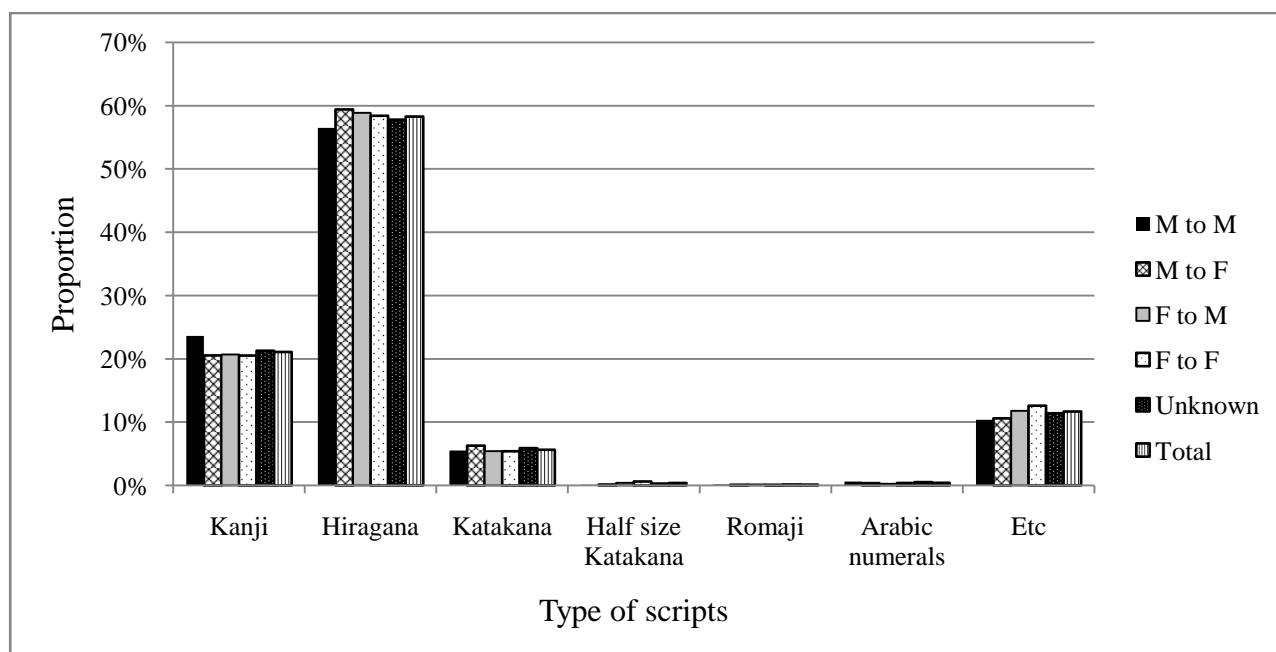
Table 9.1 summarises the quantitative differences in Keitai-mail practice between men and women based on Table 8.1, showing how people compose a text differently based on their gender and their interlocutor's gender. When women in this study compose messages, they include 7 more moji than men do regardless of the recipient's gender. In addition, Keitai-mail received by women contain approximately 10 more moji than those received by men. The amount of emoticon use also bears out what was previously suggested, in that on average women use one more emoticon per message than men do. Moreover, the present study also illustrates how each gender uses scripts in Keitai-mail. Figure 9.2 shows the results presented in Chapter 8: while Kanji are most used among males, the highest ratio of Katakana use is found in messages from males to females.

Table 9.1 Differences in length of Keitai-mail composition in terms of gender

<i>Length</i>			
Sender/Recipient	Male	Female	Difference in terms of recipients
Male	31.56	41.41	9.86
Female	39.08	50.55	11.48
Difference in terms of senders	7.52	9.14	

<i>Emoticons</i>			
Sender/Recipient	Male	Female	Difference in terms of recipients
Male	0.91	2.80	1.89
Female	2.37	3.85	1.48
Difference in terms of senders	1.46	1.05	



Abbreviations. M: Male, F: Female

Figure 9.2 The proportion of each type of symbol used in Keitai-mail (same as Figure 8.3)

The former finding corresponds with the use by men of *otokode* (Tsuboi, 2003), i.e., men's writing, and this bears out Miyake and Kotera's (2004) inference that men's communication style focuses more on information, since Kanji contain the most information in a single character compared to Hiragana, Katakana, Romaji and Numerals. The latter can be interpreted as an expression of femininity through the use of Katakana, and this sheds light on a current trend in language practice. Historically, Hiragana were called *onnade* (Tsuboi, 2003), i.e., women's writing, and Katakana were seen as the preserve of the masculine priests and of official Kanji-Katakana documents (Twine, 1991). Compared with Kanji, Hiragana were seen as an inferior means of script used by women, and Katakana as a supplement to the official Kanji of men's writing were considered superior (Takashima, 2001). While their use by women meant that Hiragana used to represent the traditional image of the writing of women, however, the image of Katakana has now

changed in this direction as well, with women appropriating them as symbols of cuteness and femininity (as seen in particular with half-size Katakana use). This tendency is confirmed by the crossover pattern of men's marked use of Katakana when sending Keitai-mail to women with the intention of creating a message which women are likely to like (as discussed in Chapter 8.1); Katakana projecting an image of femininity seem to have become a natural perception of language use.

These phenomena are well synthesised within the framework of sociolinguistics, such as in the five universal sociolinguistic tendencies of men and women introduced by Holmes (1998) discussed in Chapter 2, namely: 1) the different development of patterns of language use, 2) women's tendency to use language expressing affective sense, 3) women's tendency to use language for stressing and maintaining solidarity, 4) men's tendency to use language for increasing their power and status, and 5) flexibility of women's language use in stylistics. 1) and 5) are clear from the pattern shown in this study's data corpus: men and women compose texts with different patterns and women use greater irregularity (which corresponds to flexibility as a device for expanding their expressions) in creating Keitai-mail. In addition, 2) can also be easily found when looking at women's greater use of emoticons than men, as well as Keitai-mail exchanges with women which include emotional grooming more often than do men-to-men Keitai-mail.

As for 3), Keitai-mail and their influence on friendship and people's networks have been discussed in earlier studies (e.g., Fujimoto, 2006; Kurosumi & Fukuda, 2005; Miyake, 2002; Ono & Tokuda, 2005; Uchida, 2004; Tsuji, 2003) which have pointed out a heavy dependence on Keitai-mail as a channel for maintaining connections. In these discussions, one consideration has been that use of Keitai-mail weakens the relationship since this deprives people of the opportunity for face-to-face meetings. However, most participants in the present study, at least, do not feel their communication with close friends is weakened because of Keitai-mail, so this possible influence on weakening relationships is not practically significant. One more thing worth keeping in mind is that this connection can also give rise to a sense of being constrained by someone else. Several participants pointed this out as an aspect of Keitai-mail; it could be said that in these cases Keitai-mail provide more connection than is either necessary or desired. In this sense, Keitai-mail work to maintain and to reinforce networks. Gender differences in this regard are not obvious, but as seen in the previous chapter, female participants experienced an increase in communication through Keitai-mail and this may be a result of women's communication style of expressing intimacy in Keitai-mail through devices involving non-grammatical use of scripts and symbolic language.

As for 4), as Keitai-mail are a medium used in communication with intimate friends, the issue of power is not particularly relevant since power games are not necessary in such relationships.

Therefore, extending the discussion beyond the issue of power, the wider perspective of different communication foci is considered here through analysing the topics about which men and women talk differently. As discussed in Chapter 8.1, the topics talked about by men and women are not the same. In the data corpus, men talk more about themselves when exchanging mails with women: this includes discussion of short-term plans, what they think and hope, information they have about themselves and small talk. In this sense, men enjoy talking about themselves in communication with women, and if the disclosure of who they are is regarded as empowering, then the suggestion of men's language use as a power-seeking activity (as Itakura and Tsui (2004) argue) is not entirely unrealistic. Women include messages about near-future coordination, opinions, grooming, and joke-related statements more in talking with men, and they talk about themselves to women. Therefore, it can be seen that women focus more on the short-term time frame in communication with men, intending to create a better communication atmosphere through non-serious topics.

Through seeing these gender differences, it can certainly be said that men and women create Keitai-mail differently in terms of the texts themselves (e.g., different use of emoticons) as well as of the matters included therein (genres). Several aspects discussed in the literature on Keitai-mail are not clear cut (e.g., women's tendency to use language for stressing and maintaining solidarity and men's tendency to use language for increasing their power and status as in Holmes, 1998), and the uncertainty can be attributed to the different social situation of language practice today from when those earlier studies were conducted, as well as to a shift in language attitudes among Japanese people.

As for age and social difference, Japanese young people today do not feel social class to be significant in the manner reported by Labov (1966) or Romaine (2000) (see Chapter 2), or at least they regard this as a less significant influence on language use. This is because long-term possession of a cell phone indicates a certain degree of affluence. For social difference, in Japan, the student-worker difference involves lifestyle differences including language use, and this corresponds with age difference. To the best of the researcher's knowledge, no earlier studies of Keitai-mail have directly discussed differences in age and social differences as affecting different literacy practices.

In Japanese society, a significant factor affecting people's lives is whether they are full-time workers or not. As the data presented in Chapter 7.2 show, Keitai-mail composed by students and workers are different in terms of length, emoticon use and use of each moji type. However, age difference is stronger: the differences in Keitai-mail practices between younger and older people are more significant than those between workers and students. This can be interpreted as showing that even though social roles require a certain type of language use such as the formal and polite language use required of a full-time worker in a company, people use the register of their generation

as Keitai-mail are mainly used for casual communication purposes. This result is also evidence that Keitai-mail are mainly used in communication with intimates. That is why the differences in composition cannot be seen to be as noteworthy in the student-worker group as between the different age groups: the language use of students and workers is more similar than that of younger and older people. As for genre, both age and social role differences show typical disparities based on social lives. Young people talk about future- and emotion-oriented topics more than older people do. Messages from older people are more informative and attentive to manners. Workers exchange near-future-oriented topics. These characteristics are also a reflection of Keitai as a tool for their daily lives.

Younger people are the main creators of new expressions, and sometimes, unique uses of language by young people (in particular young women between high-school age and early-university age) are emphasised in the literature (e.g., Miyake, 2004).<sup>57</sup> However, the data of the present study do not contain any particular examples of unique language use of this kind, indicating that such extreme language uses are practised in a very limited area, as are Shūdango (Yonekawa, 2002). One possibility is an imbalance in the data collected, but the findings overall bear out Miyake (2002)'s suggestion that people limit their originality and creativity when composing texts since otherwise the meaning will not be conveyed appropriately. This tendency is actually also found in the application of LP and seems a general tendency in language practice.

The findings show that even though the Keitai-mail generation of the target age group have similar experiences (since this age group has experienced the development of Keitai-mail in terms both of the development of the cell phone itself and of Keitai-mail composition norms), younger and older people within that group compose texts differently in Keitai-mail. The results presented do not show evidence of language change as in Romaine (2000) and do not even suggest change in language itself since the differences can be attributed to other reasons such as different social roles or life styles. However, users themselves also feel the inevitable impact of Keitai-mail on their language ability in other areas of writing, including Kanji ability, critical (or at least deep) thinking in composition and the ability to choose context-appropriate language in face-to-face communication. This last is an interesting point, given that Keitai-mail are context-dependent, but this framework has different rules from face-to-face communication.

These impacts correspond with the report by Mino (2005) which discusses Keitai-mail-isation of assessment by university students. Keitai-mail, particularly for younger people who have not experienced the language used in full-time workplaces, actually become their main outlet for

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<sup>57</sup> For example, unique language uses by Gals around Shibuya in Tokyo, which is regarded as a centre of new fashion and trends for young people (in particular women in their teens and early twenties), are compiled in the *Shibuyago jiten* (A dictionary of unique language in the Shibuya area, 2008 version and 2009-2010 version).

writing. It is also possible that continuous use of such unconscious writing rules of Keitai-mail might in time change the writing system as a whole to something closer to Keitai-mail writing as general usage. As an example of this, anecdotal evidence recounts that young people have included emoticons in university essays and even in job application forms. Yasuhara et al. (2009) note that emoticons are not suitable in serious business situations. University assessments should be as serious an academic matter as business, but some young people include emoticons and the norms of emoticon uses seem to have an actual influence on their mode of communication. This tendency may increase in the light of a case study by Tsukamoto and Akahori (2007) which asks, even though in an experimental situation, students to submit their reflections on their coursework via Keitai-mail. Such forms of assessment may become more common in the future and may increase cases where students add emoticons to their texts even though they are for academic assessment.<sup>58</sup>

The problems of language use by young people are mentioned by older people. However, the younger participants in this study also experience difficulties using Japanese and are concerned about their inappropriateness of language, particularly with people who are younger than themselves. Therefore, on the casual level, the influence of Keitai-mail will lead to an erosion of the current language system in the form of language change, but a decision on whether the language of formal occasions will be fundamentally changed by Keitai-mail<sup>59</sup> needs to await further observation of technological changes when language practices will be customised by users so that their language use will not be interfered with by interfaces.

To sum up, as with differences seen in other communication media, gender differences are clear: the women sent longer messages, with ornaments and emotional expressions, than men did, and they also received Keitai-mail with these same properties. A particular feature in terms of gender difference is that men used Katakana in Keitai-mail when interlocutors are women in particular. This indicates the image of Katakana to be shifted to that of a script of femininity despite the traditional Japanese association of Katakana with formal men's language. With regard to age group, older-younger differences were a little more influential than worker-student (social roles) differences even though social roles are recognised as a major factor in language change, and this phenomenon shows that Keitai-mail are actually used in private matters involving casual language. These findings suggest that gender and age-group differences exist and that the different groups create their Keitai-mail differently, but in fact these differences occur not specifically because they are using Keitai-mail but because their normal daily communication styles or trends are reflected in

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<sup>58</sup> The growing attention to the use of emoticons in formal writing is not limited to in Japan. For example, Thompson, Mullins, Robinson, & Halberstadt, (2010) discuss the potential benefits and costs of uses of smiley faces in job applications in the U.S.

<sup>59</sup> Not in the sense of young people's inability to use Keigo correctly, but whether the Keigo system itself will be replaced by the Keigo young people use such as *Baito keigo* (see Chapter 3.2).

their Keitai-mail messages.

### 9.5 The characteristics of discourse in Keitai-mail

To attempt to approach the core nature of Keitai-mail as a similar but different medium from other existing media, the characteristics shown above will be analysed more closely by referring to certain general categories in Fairclough's (2003) criteria for textual analysis (see Chapter 2.3). As we have seen, Keitai-mail are used for a wide range of topics. In other words, any kind of information can be exchanged in Keitai-mail, from casual to serious matters. The exchange of Keitai-mail can be said to a large extent to form a normal part of daily life in a network encompassing senders and recipients.

Reflecting this property of the discourse, the genres which appear in the Keitai-mail of the corpus relate basically to something happening around senders/recipients: questions and answers, events which happened in the recent past/will happen in the near future, and non-serious exchanges (e.g., grooming) are the main genres found. When mixed use of genres occurs, a major characteristic is that people tend to include something about themselves in the texts, stemming from the closeness of communication which involves only those senders and recipients. Basic Japanese cultural practices are also at work in this process: the co-existence of greetings and apologies with the other speech acts which are the main purpose of the message reflects the Japanese politeness strategy of avoiding being too direct with interlocutors. At the same time, both male and female participants show a certain degree of selectivity in what they talk about based on their interlocutor's gender. This indicates that Keitai-mail are not a purpose-specific writing practice but are heavily communication-centred, based on the wishes of the senders/recipients.

With regard to the linguistic features of Keitai-mail, the style drawn upon is that characteristic of CMC, and the corpus shows a wide range of the characteristics of style found in this medium, including emoticons and non-standard use of language. These elements include extra-textual features such as emoticons as a body-language feature and replacement of vowels in non-standard ways as a phonological feature. The different uses of these elements by the different genders can be attributed to their different oral communication styles. In this sense, people handle the differences and limitations of the platform well, in innovative ways. At the same time, their uses of irregularity are limited in order to maintain the flow of Keitai-mail with their interlocutors and not stray too far beyond the rules and norms of language use shared with those interlocutors, as people have certain assumptions about what exchanges will occur.

Interaction generally involves short, quick exchanges between senders and recipients. However, unlike Internet chat exchange which involves prompt replies, Keitai-mail communication is not always seamless even though most people feel that a quick response is required. Therefore,



Keitai-mail can be longer and less abrupt in a single composition, compared to Internet chat or the discourse involved in a turn in a phone call. This means that semantic and grammatical relations appearing in the discourse will be a little more complex than the totally seamless written communication of Internet chat. Table 9.2, an example of Internet chat, provides a brief illustration of this aspect. This chat site is a communication space open to everyone, and the topics exchanged are decided based on the themes of chat spaces (the texts were extracted from a free conversation room)

Table 9.2 An example of Internet chat

- 
- 1: A > そうそう ^ ^ ; 細くなってくってー ^ ^ ; (13 moji, 2 EGS)  
 (A: ya, [it gets] thinner)
- 2: B > 髪質って変わるんすね(10 moji)  
 (B: The condition of hair will be changed, won't it?)
- 3: B > タイムアウトになったよー(11 moji)  
 (A: [I experienced] timeout)
- 4: A > おかー ^ ^ (3moji, 1EGS)  
 (A: [It is] interesting)
- 5: A > 年と共に髪質もかわるからさあ～って ^ ^ ; (17 moji, 1 EGS)  
 (A: because the condition of hair changes with age)
- 6: A > 30 歳過ぎて切りなつて言われる . . . (18 moji)  
 (A: [I am told that] I should have my hair cut after 30)
- 7: A > だから先生には (7 moji)  
 (A: So, from my teacher)
- 8: Sys > B さんが入室しました。(this is a message from the chat system)  
 (System: B is entering the room)
- 9: A > 切ったすえにいつも後悔 ^ ^ ; (11 moji, 1 EGS)  
 (A: [I] always regret it when I have my hair cut)
- 

*Note.* The conversation goes from bottom to top, brief translation only given of the textual messages. Texts extracted from <http://chat.teacup.com>

In this example, the brevity of each sentence can clearly be seen, but in particular lines 5 to 7 show a characteristic typical of chat messages, i.e., that writers tend to upload their statements in the middle of a sentence and then post the rest in the next statement. Lines 5 to 7 actually make up one sentence, but the writer posts them as separate components since Internet chat is a prompt exchange of messages. Therefore, in addition to the example shown in lines 5 to 7, many lines are not grammatically complete and are even abrupt (e.g., line 4).

By way of comparison, Table 9.3 presents an example of Keitai-mail exchange. Keitai-mail in which the lines are relatively short have been chosen from the data corpus. As with Table 9.2,

Table 9.3 shows a communication between females. In comparison with Table 9.2, each sentence in Table 9.3 is completed even though the length (in particular line 2) is short. In other words, phrases or paragraphs in Keitai-mail are basically not abrupt and cases of phrases being separately sent as several lines in succession as seen in Internet chat are not often found. This means one message can be concluded in a single composition, without too much of the time restraint which forces people to send a message in the middle of composing it (with/without clear motives, commonly unconsciously).

Table 9.3 An example of Keitai-mail exchange

- 
- 1: A: よかった 🍀 少し肩の荷が落ちたかな 🍀 実技頑張って 🍀 いつだっけ? (26 moji, 3 EGS)  
(A: That's good. [I think] you may be relieved. Do your best in your practical examination. When?)
- 2: B: 9月6日だよん 🍀 (7 moji, 1 EGS)  
(B: It is September 6.)
- 3: A: その前に会う? 4の夜か5なら大丈夫かも 🍀 Be smile 🍀 (27 moji, 3 EGS)  
(A: Shall we meet before the day? [I guess] I can make it on the 4th or 5th. Be smile.)
- 4: B: ほんとに! ? そうしてもらえると心強いな 🍀 4の夜だと助かります 🍀 でも5日でも全然OKだよ 🍀 (41 moji, 3 EGS)  
(B: Really!/? It is so helpful for me if you do. I prefer [to meet] on the 4th, but the 5th is also fine.)
- 5: A: 4の夜にしよ 🍀 だいたあ〜い七時過ぎくらいまでには出れるから C\*\* とかでもいい? (33 moji, 1 EGS)  
(A: Let's meet in the evening of the 4th, [I guess] I can leave my work place around 7pm, is it ok if we meet at C?)
- 6: B: CでOKです 🍀 ありがと〜 🍀 🍀 🍀 (11 moji, 4 EGSS)  
(B: That's ok [we'll meet] at C. Thank you.)
- 

\* Decome Emoji meant "you've had hard work", an example of replacement

\*\* C is the name of a place

As seen in this comparison, the use of complete phrases is characteristic of Keitai-mail. At the same time, however, the notion of the immediacy of Keitai-mail will also render it simpler than other written-based communication such as PC e-mail or letters. This wider range of discourse characteristics is the result of the wider purposes of interaction which are involved in Keitai-mail exchanges.

In other words, in terms of the DA criterion of exchanges, speech functions and grammatical mood, the nature of Keitai-mail as a representation of social practices in daily and general communication contributes to the fuzzy, or even flexible, application of language used therein: people can freely use a combination of messages depending on what they want to convey, and this involves a large set of patterns in terms of exchanges, speech functions and grammatical mood. At the same time, as seen in co-occurrences of genres, favourable semantic relations exist as a component of messages and these relations are characterised by the general exchange rules of

Japanese discourse.

We should also keep in mind that the different levels of language use or code-switching (in terms of complexity or formality) also function to overcome or to maintain differences from and distance between exchange partners: language is deemed to be appropriate or not based on the relationship with the interlocutor and its manipulation further entails this relationship, as the use of language in calculated ways is able to change this distance and relationship. This practice is deeply rooted in the expectations of language use (politeness) found among Japanese people and in the Japanese language.

Keitai-mail are also accompanied by a certain image as electronic media, namely that communication via Keitai-mail does not entail as much care on the part of the composer of the message as physical written communication, e.g., letters, does. This is a leading factor in the manner in which people distinguish between electronic and non-electronic media as two different means of communication.

To move on to the underlying intentions of senders, since Keitai-mail are closed communication mainly conducted with already known people, they basically do not need to use a specific frame in messages when interacting with partners; the level of commitment to epistemic modality in Keitai-mail communication can therefore be said to be not always necessarily high, varying based on their exchanges. At the same time, as genres occurring in Keitai-mail have to do with things taking place around the senders, it is reasonable to assume that what senders say will be true (middle level of commitment in terms of epistemic modality). As for deontic modality, this can also vary because of the coverage of conversational occasions occurring in Keitai-mail, but as Japanese people tend to use milder expressions in their requests the expression of obligation will not be high. In short, the various modality levels shown in Keitai-mail are also characteristic of this type of context-based communication.

As for evaluation, there are two types of evaluation involved: people evaluate matters both outside Keitai-mail and in regard to Keitai-mail exchanges about themselves. The former is found everywhere since people continuously make evaluations of matters along a scale of minor to significant; this can be seen in Keitai-mail, stated, for example, in opinions, suggestions, short answers, questions, and apologies, topics widely shared in Keitai-mail. As for the latter, people either intentionally or unconsciously evaluate appropriateness of register, distance with interlocutors, content and response of Keitai-mail from interlocutors, and so forth, as the example in Chapter 7.3 shows. This evaluation further influences Keitai-mail practice based on to what extent their expectations of communication via Keitai-mail are achieved. As in the case of small letter uses (Chapter 9.1), evaluation of desirable/undesirable styles applied in Keitai-mail varies based on the recipient's relationship with the interlocutor as well as on the topics and circumstances they discuss.

This also means that senders need to take into account the general and context-specific norms constructed by interlocutors. The baseline for norms on how much they include irregular expressions is decided simply by the actual relationship with the interlocutor; age differences need to be considered, since people of different ages have different frameworks for the rules of language use in composition even in a casual exchange of Keitai-mail. Therefore, acceptable Keitai-mail can be an indicator of successful communication through the medium. A heavy preference for, or at least the common choice of, Keitai-mail as a communication medium with interlocutors results from the ability to use it to talk about various topics as they wish due to the context-dependent nature of Keitai-mail.

The above analysis based on certain of Fairclough's criteria reveals Keitai-mail to have the following characteristics:

- 1) Keitai-mail are heavily context-dependent exchanges.
- 2) Keitai-mail are communication-centred exchanges based on a range of wishes (in comparison with more heavily formatted exchanges which are used for particular specific procedures).
- 3) Keitai-mail are widely used in casual exchanges which synthesise the norms and rules of communication in general.
- 4) Keitai-mail operate in a timeframe not shown by other media because of the asymmetrical expectations people have: they seek synchronic response with composition shown in asynchronous communication.
- 5) Keitai-mail can be effectively handled to overcome a lack of non-textual information through the devices of providing emoticons and non-standard innovative usage of moji.
- 6) Keitai-mail have their own individual properties which co-exist with other similar media.

On a sub-level:

- a) The basic overall motive at work in Keitai-mail communication is the desire to achieve effective communication. This goes beyond the basic CA criterion of mutual intelligibility to include such things as textual/non-textual expressions to maximise the information of the message.
- b) The recognition of emoticons as conveyers of emotion and thus as indicators of psychological states is high, as seen in the phenomenon of the correspondence between emoticon uses (including the number used) and emotional expression found in other communication channels, particularly in face-to-face exchanges.
- c) Technological advancements and maturity of manipulation of Keitai-mail allow users to focus on how they can fully express their messages, with the creation of a particular communication atmosphere, rather than on how they can best manage the restrictions of the platform.

- d) Irregularities used for eyecatching purposes are based on standard language usages and do not stray far beyond the common understandings, particularly the expected sense of the kind of language shared with exchange partners.
- e) The convenience of using an electronic medium also gives rise to the image of discourse by this means as not fully heartfelt or given sufficiently careful consideration.

Keitai-mail represent a complex communication practice underlain by multiple user motivations. All of the standard, prepared and user-extended extra-textual elements, along with the use of non-standard language, are devices to respond to these complex and widespread communication desires. This particular literacy practice is a major part of Japanese young people's lives: it might be said that Keitai-mail are miniatures of the daily lives of Japanese people and are filled with dramas played out in real life.

As the end of the journey seeking the nature of literacy practice involved in using Keitai-mail, this present study concludes by responding to the eight components of the social basis of literacy proposed by Barton (2007, pp. 34-35):

1 Literacy is a social activity and can best be described in terms of people's literacy practice which they draw upon in literacy events.

→ Keitai-mail as context-dependent harmonise well with literacy as a social activity, i.e., as a context-based literacy practice.

2 People have different literacies which they make use of, associated with different domains of life. Examining different cultures or historical periods reveals more literacies.

→ Keitai-mail in a particular time exhibit a particular literacy, and the rapid growth of mobile phone technology has given rise to a continuous but different type of framework. The different literacy practices of different generations of mobile phones will also reveal literacies by other means, since commonalities found in different mobile phones over a short period of time are a good indicator of language practice.

3 People's literacy practices are situated in broader social relations. This makes it necessary to describe the social setting of literacy events, including the way in which social institutions support particular literacies.

→ Keitai-mail are used in accordance with real relationships with interlocutors and this can be so broad as to cover communication with strangers. Support for developing extensions of expression (e.g., through creation of Decome Emoji) as well as development of technology itself are a necessary part of considering this growing literacy practice.

4 Literacy is based upon a system of symbols. It is a symbolic system used for communication, and as such exists in relation to other systems of information exchange. It is a way of representing the world to others.

→ Keitai-mail apply various symbolic systems: emoticons are representations of emotion, and irregularities are a new part of the symbolic system which goes beyond standard usage. The use of these symbolic systems is decisive in shaping the register through which people construct their communication worlds in relation to their interlocutors.

5 Literacy is a symbolic system used for representing the world to ourselves. Literacy is part of our thinking. It is part of the technology of thought.

→ All symbolic systems of Keitai-mail are used to express people's thoughts. Keitai-mail are fundamentally a written-based technology but the use of non-standard language extends its function as a technology of thought.

6 We have awareness, attitudes and values with respect to literacy and these attitudes and values guide our actions.

→ Keitai-mail, and the language used in them, are given a certain degree of attention as regards interest and appropriateness. Each person has their own sense of what is appropriate in Keitai-mail communication in various situations; these frameworks for Keitai-mail communication lead to a certain type of Keitai-mail practice based on who the interlocutor is.

7 Literacy has a history. Our individual life histories contain many literacy events from early childhood onwards which the present is built upon. We change, and as children and adults are constantly learning about literacy.

→ Literacy practices accumulated during growth from child to adult as well as mobile texting practices dating from the early stage of immature-interface Keitai-mail, SMS, or even pagers have constructed current Keitai-mail practice.

8 A literacy event also has a social history. Current practices are created out of the past.

→ Keitai-mail follow the history of CMC as well as of letters or other types of writing practised previously.

Keitai-mail as written-based CMC are not merely a copy of language recorded via other media, but comprise a particular language practice reflected in factors encompassing a wide range

of areas in related human language, communication activities, and even life itself – this is the discourse of Keitai-mail which represents the world of young Japanese people. The Keitai-mail as a social-based literacy practice shown above reveal this wide spread and complexity, as well as how people employ and innovate their manner of communication via Keitai-mail in a systematic way.

## Chapter 10 Conclusion

This study has aimed to elucidate Keitai-mail practice among young people from a holistic viewpoint, and its major arguments have discussed linguistic characteristics, influences from specifications and the nature of the medium, psychological factors in Keitai-communication and language use, and the social factors involved. These were analysed in detail based on a Keitai-mail data corpus which included 43,295 texts for communication purposes from a total of 53,187 messages. Each aspect entails its own particular characteristics, but the underlying mechanisms and motivations are based on the desire to realise effective communication by utilising possible functions and available resources (including social and cultural norms) as a commonality throughout Keitai-mail communication. This base provides a systematic framework for Keitai-mail which might otherwise be viewed as random creations, possibly including combinations of unusual language.

Keitai-mail constitute a discrete literacy practice which is a reflection of users' lives as well as of Japanese norms and cultural communication practices. This practice is of course the result of an accumulation of communication experiences using other media, but Keitai-mail are not simply copies of the language occurring in other media; rather, they enable a new type of language use and communication style for effective communication. The flexibility of Keitai-mail as an anywhere-anytime medium provides a richer source of daily communication which is now non-separable from Japanese young people, and this study of its wide application is a milestone in exploring the language use rapidly evolving in today's IT era.

The highlighted contribution of this study is its holistic re-examination, through investigation of an extremely large Keitai-mail data corpus, of phenomena which have been separately reported in smaller studies over the last two decades. As Crystal (2008) notes, obtaining raw data is always a challenging task for researchers, particularly the data of text-based message exchanges which include a great deal of personal information. From one perspective, this limitation can stimulate researchers to devise methodologies; effective proposed methods to overcome limitations enable them to develop innovative means of gaining meaningful results from the available sources. Despite the difficulty of data collection, thanks to all participants, this study was able to analyse the nature of Keitai-mail using a great number of raw data sets, and the results and discussions in this study both give critical evidence to support phenomena previously found in smaller studies and also offer further insights into Keitai-mail practice in a more systematic manner. Also, this study indicates the effectiveness of alternative methodologies devised in previous studies by comparing how their results correspond with the result obtained from its raw data.



### *Implications*

The scope of this present study is to discuss the language and communication of Keitai-mail with a focus on the young people who are actually using this particular language practice. The results of this study have further implications for related areas, given the growing attention to Keitai-mail as a significant factor in language and literacy practices.

To begin with, Keitai-mail are increasingly seen as significant as a core part of written communication among young people by language policy planners. This study reveals a comprehensive picture of this particular literacy practice through a single independent study based on a large-scale dataset containing naturally occurring language. This means that the present study examines in an interconnected manner the overall interaction of phenomena that previous studies investigated in isolation, and this data-driven approach provides a deeper interpretation for each phenomenon previously suggested in addition to providing some new insights. The results of this study may therefore contribute as reference material to future decisions on which Kanji are suitable for inclusion in the Jōyō Kanji list since Keitai-mail reflect how the national language is used in contemporary society; this could be an effective method of overcoming the shortcoming pointed out by Shibano (2009) in Chapter 6, namely that the Jōyō Kanji do not correspond with Kanji used in normal Japanese daily life.

The results of this study also provide insights for kokugo (Japanese as the national language) education. Keitai-mail practices have become essential written communication experiences. The findings of this study (e.g., average composition elements of Keitai-mail, choice of scripts and registers based on relationship) will be the standard or basic framework of writing taken as a given by future generations. The implications here are first that explicit teaching of the mode of Keitai-mail as a different style from formal writing is recommended in order to show which criteria differ in these two forms of writing. Second, while effective use of non-language aspects to indicate meaning is reasonable and actually works well, dependence on a symbolic system such as emoticons may decrease the ability to express things through language itself and lead to loss of logical thinking in language. This tendency corresponds to concerns expressed by Katayama (2003) and a deeper understanding of this aspect of the nature of young people's written communication will improve educational outcomes from kokugo education, such as by including attention to efforts to verbalise abstract concepts with language.

The field of Japanese as a second language (JSL) can also benefit from this study. Keitai-mail are an essential part of communication among Japanese people, particularly for those who live in Japan. Furthermore, the multi-language platform of today's smart-phones enables students to communicate with Japanese people even in places where they rarely encounter first-language speakers of Japanese, as a form of authentic communication using computer-assisted language

learning (CALL). Sakai (2007) notes that sufficient information about communication practices in the target language including not only the knowledge of grammar or vocabulary but also cultural knowledge is important for successful learning using CMC, which further motivates and challenges learners to study in the long journey of language acquisition. However, no detailed guidelines for language use in this medium have been introduced for second-language speakers of Japanese. The data from the present study, e.g., the frequency list of emoticons, provide a useful reference for JSL learners who are likely to encounter such high-frequency emoticons; understanding the meaning and usage of the minimum set of emoticons will make Keitai-communication smoother, avoiding confusion or misinterpretation of the original intentions by Japanese speakers.<sup>60</sup> In addition, the list of frequently used Kanji helps them to understand what Kanji should be learned first for Keitai-mail communication since the Kanji appearing in Keitai-mail are not totally equivalent to the steps of Kanji learning introduced in JSL texts as well as in the Kanji education guidelines in kokugo education. Furthermore, the results also show how people employ emoticons and unique characteristics of language in Keitai-mail depending on their relationship with their interlocutors. The Japanese language places great importance on the register used in relationships (e.g., politeness), and this study's insights on this frequently occurring aspect of communication provide a guideline for JSL learners on how they can compose e-mail texts in an appropriate manner. To date, this information has not been much introduced for reference in textbooks or other materials for teaching Japanese language and it will be beneficial in imparting a knowledge of what is expected in Keitai-mail communication.

#### *Future research*

The insights from this study suggest a number of research topics which will further open up the understanding of Keitai-mail practice. The first is to investigate language use on smart-phones. Since the iPhone was introduced by SoftBank into the Japanese Keitai market,<sup>61</sup> smart-phones have increasingly received attention and have become popular so quickly that within just a few years they have come to share a large part of the Japanese mobile phone market today.<sup>62</sup> Smart-phones such as the iPhone come installed with an input system which is different from that of the previous generations of mobile phones researched in the present study. Touch-screen input provides a different experience for users, and the platform has both advantages and disadvantages for inputting.

<sup>60</sup> Outside the scope of this study, some non-Japanese speakers find it difficult to interpret 'm( )m' as meaning 'bowing'. This is an example of a different cultural background leading to confusion in communication.

<sup>61</sup> SoftBank had a contract with Apple to provide iPhones only to SoftBank, which meant that initially only SoftBank users were able to use iPhones in Japan generally. From October 2011, au also started to sell iPhone (4S).

<sup>62</sup> See Footnote 7 on page 4.

The language use arising from this extensive but relatively new input interface will shed further light on what is contemporary language use and what stems more from the root property of being mobile electronic communication.

A topic related to smart-phones, an interesting feature of CMC using smart-phones' application software shared by Maruyama (2011),<sup>63</sup> is that even though the functions and basic interfaces of the two communication channels of Skype and Viber are similar (as Figure 10.1 shows), the underlying emotion in text writing by users is different since Skype calls this exchange a 'chat' whereas Viber calls it an 'SMS'. This indicates that people already have an image of or framework for the name of each communication method, and they will conduct different types of written practices using them. The interface of the icon of Viber representing a phone call reinforces an impression of written communication as SMS. As this present study concludes, each medium has its own communication framework in terms of literacy practices, but to compare these two similar functions each associated with a different framework of communication will reveal further characteristics of CMC, an essential part of this rapid technological change.

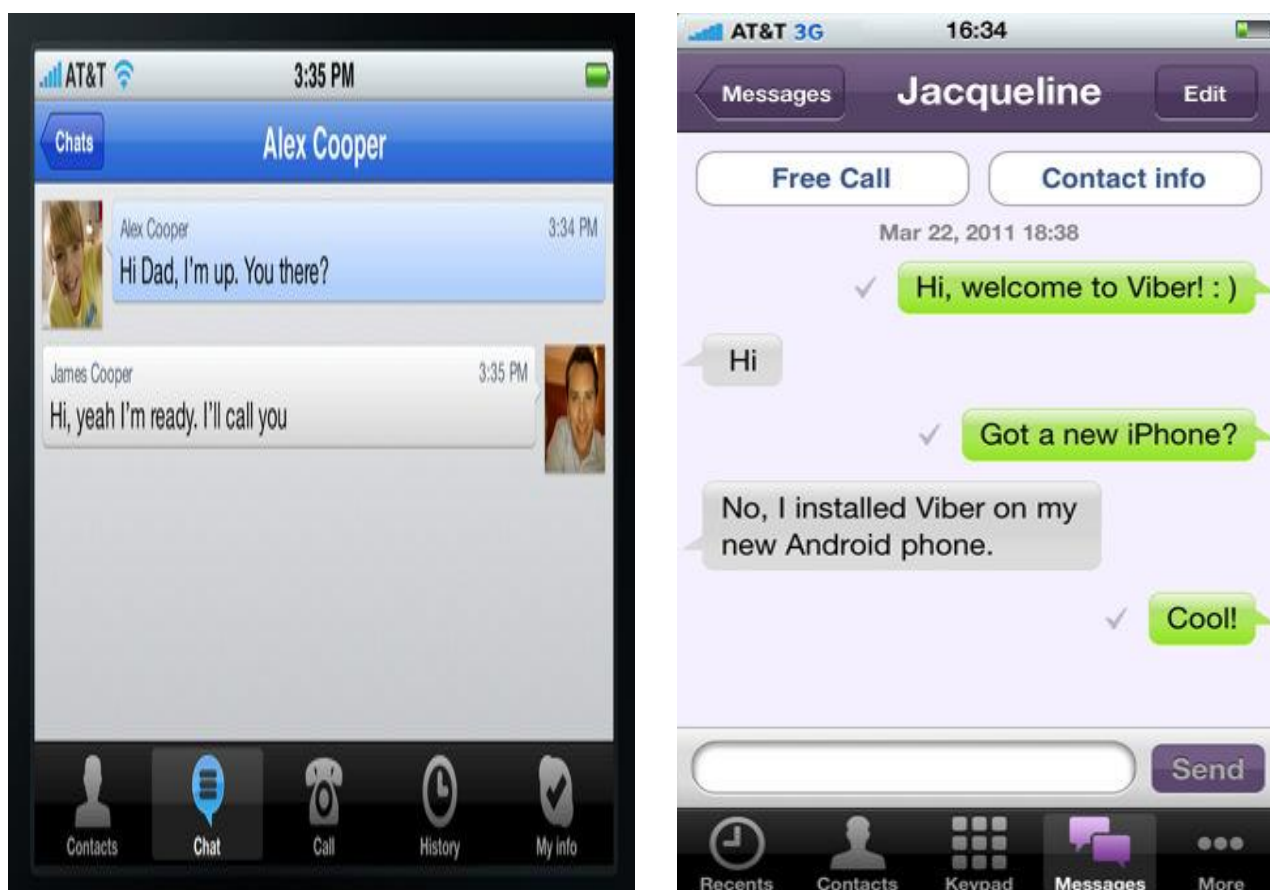


Figure 10.1 Written text exchanges on Skype (left) and Viber (right) (Apple Inc, 2011)

<sup>63</sup> Personal communication (18 August, 2011) with Toshihiro Maruyama, owner of design studio TMCreation which specializes in creating corporate identities, working with clients both in Japan and Australia. Maruyama focuses on the visualization of conceptual ideas and is also a front-end web designer & developer with a background in sales and marketing.

A further interesting topic is cross-cultural research comparing language practice on smart-phones in different countries. In the pre-smart-phone age, the specifications of mobile phones were quite varied and the different base languages such as Japanese and English encouraged region-specific mobile texting practices which automatically resulted in distinctive language practices. In the smart-phone age, however, people living in different countries engage in texting practices using the same specifications. Such cross-cultural study on the different use of mobile communication in general including Japan is only in the early stages (e.g., Baron & Campbell, 2011; Baron & Hård af Segerstad, 2010), and to analyse these texting practices using the same platform (e.g., SMS by iPhone between Japan and Australia) would elucidate what is universal in mobile-based CMC and what is culturally dependent in nature, found in a particular group. The results from the present study provide a basis for the study of this wide world of the latest CMC and open up our understanding of CMC and even of language.

Furthermore, smart-phone and non-smart-phone exchanges also reveal something about the nature of communication. In each case, a knowledge of the nature of exchanges using previous media is essential for deep analysis. On this point, in particular considering the present paradigm shift in mobile phones, data from this study's period of time will increasingly gain in value as a language source, making this study an important part of the pursuit of human language practices.

Further to the non-electronic aspect, Keitai-mail (in Japan, at least) are context-dependent. Therefore, they are a source of naturally occurring language and we are able to see raw language exchanged in various situations using various registers through Keitai-mail samples. One topic which can be discussed in the future is young people's ability with polite language use since Keitai-mail are more prompt, which reflects their general language ability.

### *Concluding remarks*

Keitai-mail that characterise young people's lives to a large extent can be seen as a significant use of communication technology in the present age. The linguistic and communication-related nature of Keitai-mail involves the integration of various aspects of human-related activities and the worlds surrounding the users: they are not random phenomena and are not particularly separated by other factors. This is an important turning point in the history of human language. Keitai-mail will grow in significance as a literacy practice, which will further play a role as a vivid part of the study of communication and will continuously provide insights into related fields of studies. Keitai-mail thus have become an important part of the history of human language and communication.

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## Appendices

### Appendix A Questionnaire (Original version)

#### 携帯電話の e メール の表現に関する調査のためのアンケート

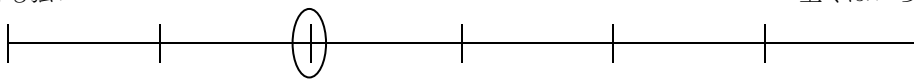
本日は調査にご協力いただきまして、本当にありがとうございます。本アンケートは、携帯電話の e メールでのコミュニケーションが、日本語の表現や使い方にどのような影響があるのかを調査する目的で作成されています。

本アンケートは、一問一答の記述式の質問そして、以下の2つのタイプの選択式の質問で構成されています。

まず、一つ目のタイプとは、質問に対して、それがどの程度あてはまるのかを回答していただく形式です。例としては、

例) あなたの家では、携帯電話の電波がどのくらい入りますか。

とても強い 全くはいらない



このタイプの質問には、上の例のように、左右に記述している評価基準をもとに、最もあてはまると思われる位置を選択し、印をつけてください。

その他の選択式の問題に、複数回答の質問があります。この質問の回答として、よくあてはまる場合は○、少しあてはまる場合は△を記入してください。例としては、

例) 家の中で携帯電話を置き忘れるのは、以下のどの場所が多いですか (複数回答可)。

①. 机の上    2. ベッドあるいはふとんの中    △3. 脱いだ服のポケットの中

4. 洗面所    △5. リビングルーム    6. キッチン    7. トイレ

⑧. その他 → (具体的には: 自分の部屋の床の上 )

また、アンケートに回答していただいている際に、質問内容や回答方法などで何かご不明な点がございましたら、その都度研究者に質問してください。それではよろしくお願ひします。



1. 携帯電話について

1) あなたが今使っている携帯電話の機種は何ですか。(P905i 等)

( )

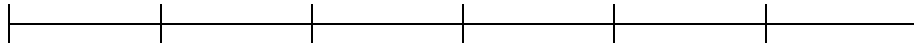
2) その機種を使い始めてからどのくらい経ちますか。

( )

3a) 現在使っている携帯電話は使いやすいですか。

とても使いやすい

とても使いにくい



b) どういう部分が使いやすい、あるいは使いにくいですか。

4) 携帯電話を初めて持ったのはいつですか (その時からどのくらい経ちますか)。

( )

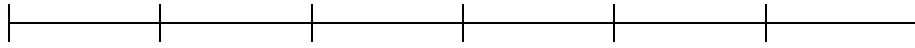
5) 今まで使ったことのある携帯電話の機種は何でしたか (おおまかに)。

(次のページへ進んでください)

6) 新しい携帯電話にするとき、前に使っていたメーカーと同じメーカーの携帯電話を好みますか、別なメーカーの機種を好みますか。(例：P904 を使っていたら、新しい携帯電話を買う時に、P905 のような P の種類を好んで購入する)

前と同じメーカーの機種がいい

前とは別なメーカーの機種がいい



・その理由は何ですか

7) 携帯電話を選ぶ時に、重視していることは何ですか (複数回答可)。

1. デザイン    2. 色    3. 重さ    4. 画面の大きさ    5. 画面の見やすさ
6. ボタンの押しやすさ    7. メモリの容量
8. ついている機能 → (具体的には： \_\_\_\_\_ )
9. その他 → (具体的には： \_\_\_\_\_ )

8a) 携帯電話の機能で、よく利用するものはなんですか (複数回答可)。

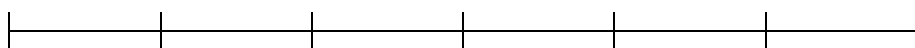
1. 通話機能    2. eメール    3. インターネット    4. カメラ    5. 音楽プレーヤー
6. その他 ( \_\_\_\_\_ )

b) それらの各種機能の使いやすさをどう判断しますか。それぞれについてその使いやすさを評価してください (使わない機能に関しては無記入にしてください)。

1. 通話機能

とても使いやすい

とても使いにくい



(次のページへ進んでください)

## 2. eメール

とても使いやすい

とても使いにくい

## 3. インターネット

とても使いやすい

とても使いにくい

## 4. カメラ

とても使いやすい

とても使いにくい

## 5. 音楽プレーヤー

とても使いやすい

とても使いにくい

その他によく使用する機能がありましたら、かっこ内にその機能を書いていただいて、それぞれに評価を与えてください。

( )

とても使いやすい

とても使いにくい

( )

とても使いやすい

とても使いにくい

( )

とても使いやすい

とても使いにくい

( )

とても使いやすい

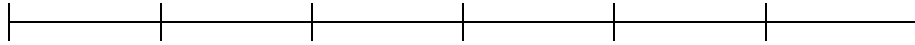
とても使いにくい

(次のページへ進んでください)

9a) 携帯電話での文字入力方式についてどう思われますか。

とても入力しやすい

とても入力にくい

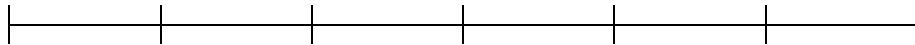


b) どうして思いますか。

10) 携帯電話で文字を入力することには慣れていますか。

慣れている

慣れていない



11) 全般的に見て、携帯電話を使うことに慣れていますか。

慣れている

慣れていない



(次のページへ進んでください)

## 2. 携帯電話におけるインターネット利用について

1) 携帯電話でインターネットのサイトにアクセスしますか。 はい・いいえ  
答えが「はい」の場合は2)へ、「いいえ」の場合は次のページへと進んでください。

2) 携帯電話でインターネットのサイトにどのくらいの頻度でアクセスしますか。

( )

3) 利用されているサイトの中で、特によく利用しているものがあつたら、そのサイトを教えてください。

4) 携帯電話を使ってインターネットサイトを見るときに、何か気になる点（特にパソコンで見ると比べて）があつたら教えてください。

(次のページへ進んでください)

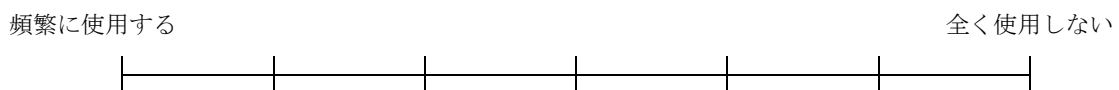
### 3. 携帯電話の e メール利用について

- 1) 携帯電話の e メールを 1 日平均どのくらいの頻度で送りますか  
( )
- 2) 携帯電話の e メールを 1 日平均どのくらいの頻度で受け取りますか (迷惑メール、メルマガ等は除く)  
( )
- 3) あなたは、携帯電話の e メールを使うこと (作成・送信等) に、一日平均どのくらいの時間を使っていますか。  
( )
- 4) あなたは、以下に挙げる場所において、携帯電話の e メールをどの程度の頻度で使いますか。それぞれについて最も当てはまるものを選んでください。

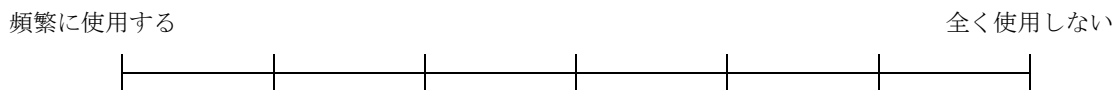
自宅



学校／職場



公共交通機関の中



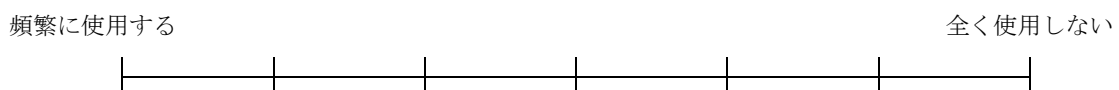
道路 (歩きながら)



レストラン (ファストフード店を含む)



娯楽施設 (アミューズメントパーク・カラオケ等)



その他に、携帯電話の e メールをよく使用する場所があったら教えてください

( )

(次のページへ進んでください)

5a) 携帯電話で e メールを受信した際、どのように対応していますか。1～6の中から最も近いものを一つ選んでください。また、3を選んだ場合は、さらに直後の a～f からあてはまるものを全て選択してください。

1. メールを受信したらどのような時でも、よほどの場合を除いてほぼ必ずすぐに返信している。
2. メールを受信したら、手が空いている時には、ほぼ必ずすぐに返信している。
3. メールの差出人や内容に応じて、すぐに返信するかしないかを決める。  
→具体的には (複数回答可)
  - a. 大事な要件のメールであればすぐに返信する。
  - b. 簡単な要件のメール (返しやすいメール) であればすぐに返信する。
  - c. 親しい友人からのメールであればすぐに返信する。
  - d. 先輩や上司といった、立場が上の人からのメールであったらすぐに返信 する。
  - e. 家族からのメールであればすぐに返信する。
  - f. その他 ( )
4. どちらかと言えば、要件や人間関係にかかわらず、返しやすいメールであればすぐに返信するが、そうでない場合は、時間をかけて返信する。
5. 特に何も気にせずに、自分の気持ちや都合で、返信したりしなかったりしている。
6. その他 ( )

b) 上記で回答したような対応をするのはどうしてですか。

(次のページへ進んでください)

6) あなたは携帯電話の e メールをどのように管理していますか。あてはまるものを選んでください (複数回答可)

1. 大事な受信メールを保護している。
2. 差出人ごとにフォルダを作成し分けている。
3. 短文のやりとり (返信が「分かりました」「大丈夫」等) は頻繁に消去している。
4. 広告やメーリングリストなど、重要ではない宛先からのメールを頻繁に消去している。
5. 受信、あるいは送信ボックスがいっぱいになった時は、一度にまとめてメールを消去する。
6. 特に何もしていない
7. その他 (具体的に )

7) 携帯電話の e メールでのコミュニケーションに関して、どのような印象がありますか、あてはまるものを選んでください (複数回答可)。

1. 携帯電話の e メールでのコミュニケーションは手軽である
2. 時間をかけて考えることができるので、冷静に返答できる
3. ちょっとした要件を伝えるのに便利
4. 対面や電話で言いづらいことも (謝罪や相談など)、e メールならば伝えやすい
5. 対面や電話よりも、相手に物事を頼みやすい
6. 携帯電話の e メールを使うことにより、より多くの人とコミュニケーションをすることができる
7. 携帯電話の e メールでコミュニケーションができてしまうことにより、親しい友人との人間関係が軽薄になったと感じる。
8. 携帯電話の e メールでのコミュニケーションの方が、対面や電話に比べて、感情的に反応することが多いと感じる。
9. 返信がなかなか返ってこない、イライラしたり、不安を感じる人が多い。
10. 受け取ったメールにすぐに返信しないと申し訳ないと感じる。
11. その他、思いつくことがあれば記述してください。

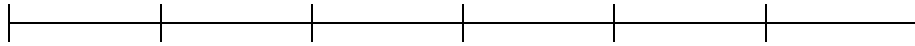
(次のページへ進んでください)



8a) 物事を相手に伝える時、携帯電話の e メールで、どこまで重要な要件を伝えていま  
すか。

とても重要な要件を含め全て

重要でない要件のみ



b) 具体的には、どのような要件の時に携帯電話の e メールを使い、また使いませんか。

c) また、どうしてそのような使い方をしているのかを教えてください。

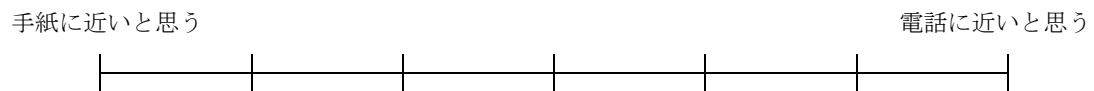
(次のページへ進んでください)

9a) 携帯電話の e メールで文章を作成することに対して、どのような印象がありますか。



b) その理由は何ですか。


10a) 携帯電話の e メールでコミュニケーションすることは、あなたにとっては手紙でのコミュニケーションに近いですか、それとも電話（会話）でのコミュニケーションに近いですか。



b) そのように思う理由は何ですか

(次のページへ進んでください)

11) これまでのことに加えて、携帯電話の e メールでのやりとりに関して、何か思うことがあれば、自由に書いてください。

A large empty rectangular box with a thin black border, intended for the respondent to write their thoughts on mobile phone email communication.

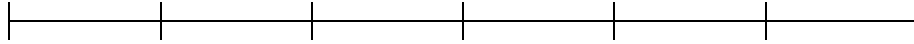
(次のページへ進んでください)

#### 4. 携帯電話の e メールでの表現について

1a) 携帯電話で e メールを作成するとき、省略、略語はよく使いますか。

よく使う

全く使わない



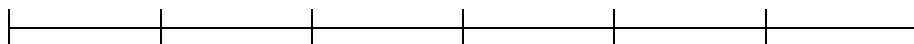
b) 省略語を使う機会がある場合、その利点や、その時の意図を教えてください。

c) 省略、略語の中でも、よく使うものがあれば、そのいくつかの例と、分かる場合は、元になっている言葉を教えてください（例：携帯電話→ケータイ）。

2a) 携帯電話で e メールを作成すると、手書きで文を作成した時以上に漢字が多く入りますか、それとも少なくなりますか。

とても多く入る

全く入らない



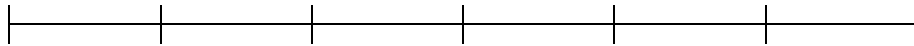
(次のページへ進んでください)

b) そうなると考えられる理由を書いてください。

3a) 顔文字・絵文字はよく使いますか。

よく使う

全く使わない



b) それらの顔文字・絵文字を使用する場合、どのように入力しますか？（複数回答可）

1. 携帯電話にもともと入っているものを使う
2. それまでに使ったものを保存して使う
3. 携帯電話で使える文字を自分で組み合わせて作る
4. その他 ( )

c) 顔文字や絵文字を入れるときは、どういう意図で文章に入れますか。

(次のページへ進んでください)

- 4) 省略語や顔文字とは別に、携帯電話の e メールを作成するときに、よく入れる 携帯 e メール 独特の表現や言葉づかい (携帯の e メール以外ではあまり使わないような表現や言葉づかい) があったら教えてください。(例: 語尾に「笑」をつける、など)

- b) そのような表現がある場合、それらの表現を利用する利点や意図は何ですか。

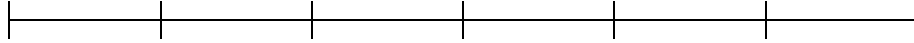
- 5) これまでの 1) ~ 4) までに記載していただいた特徴を反映させて、簡単な e メール の文章の例を作成してください。

(次のページへ進んでください)

6a) eメールを送る相手に応じて、その表現を変えていますか、いませんか。

必ず変える

全く変えない



b) もしなんらかの形で変えている場合、具体的にそれは誰に対して、どのようなものであるか教えてください。

7) 携帯電話が日本語の表現や日本語使用の能力に影響を与えますか、そういう影響はないと思いますか、この点について自由に意見を書いてください。

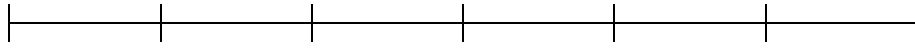
(次のページへ進んでください)

### 5. 言葉について

1a) 昨今「日本語（言葉）が乱れている」と言われていますが、実際にそれを感じることはありますか。

常日頃感じる

全くそうは思わない

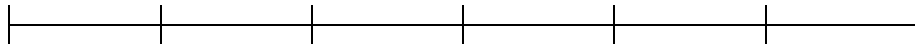


b) そのように思われる理由は何ですか。

2a) 自分自身の日本語については乱れていると感じますか。

常日頃感じる

全くそうは思わない



b) そのように感じる理由は何ですか。

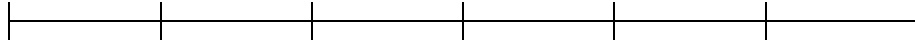
(次のページへ進んでください)



3a) 昨今活字離れが叫ばれていますが、実際にあなた自身はどの程度読書をしますか  
(小説や伝記など)。

よく読む

全く読まない



b) 具体的にはどのくらいですか (例: 1カ月に1冊) ( )

c) 読書についてどう思いますか。ご自由に意見を書いてください。

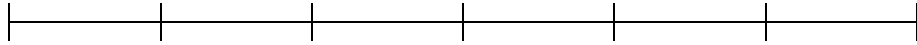
4) カタカナ語が増えている傾向についてどう思われますか。ご自由に意見を書いてください

(次のページへ進んでください)

5a) 日本語は簡単であると思いますか、難しいと思いますか。

簡単である

難しいと思う



b) その理由は何ですか。特に、簡単な部分、あるいは難しい部分があるとしたら、それはどのようなところですか。

(次のページへ進んでください)

## 6. メディアについて

1) よく見るテレビ番組の番組名を挙げてください。

2) よく読む雑誌があれば具体的に名前を挙げてください（ファッション誌・情報誌・マンガ等）。

3) テレビ欄以外のセクションにも頻繁に目を通す新聞があったら、その新聞と、よく見るセクションを教えてください。

(次のページへ進んでください)

4) パソコン上でよく見るインターネットサイトあったら名前を挙げてください。

5) 好きなゲームがあったら名前を挙げてください。

6) それらのメディアが日本語や、普段の言葉づかいなどに影響していると思われ  
ますか、自由に意見を書いてください。

(次のページへ進んでください)

あなたのプロフィールを教えてください

1. 年齢 ( )
2. 性別 男性 ・ 女性
3. 職業 ( )
4. 現居住地と滞在期間

都・道	市・町	期間
府・県	村・区	

5. 一番長く住んでいた場所と滞在期間（もしそれが海外である場合は、最初の空欄に国名を、次の空欄に州あるいは都市名を書いてください）。

都・道	市・町	期間
府・県	村・区	

6. 上記で挙げた場所以外で、2年以上住んでいた場所があったら、教えてください。同じ市内で引っ越しをした場合などは、それをひとまとまりとして数えてください。

都・道	市・町	期間
府・県	村・区	
都・道	市・町	期間
府・県	村・区	
都・道	市・町	期間
府・県	村・区	
都・道	市・町	期間
府・県	村・区	
都・道	市・町	期間
府・県	村・区	

(次のページへ進んでください)

最後に、このアンケート、または研究に対して何か意見がございましたら、ご自由にお書き下さい。

ご協力ありがとうございました

(最後のページです)

## Appendix B Questionnaire (English translation)

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 A questionnaire regarding the influence of Keitai-mail on Japanese
 

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Thank you for your participation in this survey. This questionnaire is created to investigate how communication through Keitai-mail influences language use and expressions in Japanese.

This questionnaire consists of an exchange of questions and answers, and the following two types of questions.

The first type of question asks you to evaluate to what extent you agree with the statement or question. For example:

ex) How strong is the signal of your mobile phone inside your house?

Very good None

The scale consists of a horizontal line with seven vertical tick marks. The leftmost tick mark is labeled 'Very good' and the rightmost is labeled 'None'. There are five equal intervals between the six internal tick marks. A circle is drawn around the third tick mark from the left, indicating the selected response.

For this type of question, as the example above shows, please mark your opinion on the scale based on the evaluation criteria appearing on the right-hand and left-hand sides.

In addition, some questions ask you to choose answers if they are applicable to you. For this type of question, if the statement is applicable to you, please put  $\bigcirc$ ; if it is slightly applicable, please put  $\triangle$ . The question below is an example:

ex) Where do you tend to leave your mobile phone in your house? (Check all that apply)

1.  $\bigcirc$  On the desk    2. On the bed or Huton    3.  $\triangle$  Inside a pocket  
 4. Bathroom    5.  $\triangle$  Living room    6. Kitchen    7. Restroom  
 8.  $\bigcirc$  Others → (Where? *Floor in my room* )

If you find any difficulty with a question or ambiguity in the questions themselves or you are not sure how to answer while doing the questionnaire, please ask the researcher whenever you need. From now, please answer the questions.

1. Mobile phones

1) Which mobile phone do you use now? (ex. P905i)

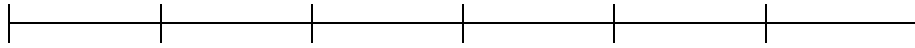
( )

2) How long have you used this mobile phone?

( )

3a) Is your mobile phone easy to use?

Very easy



very difficult

b) Why do you feel it is easy to use, or difficult to use?

4) When did you first get a mobile phone? (How long has it been?)

( )

5) Which types of mobile phones have you used?

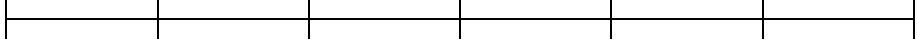
(Please go to the next page)





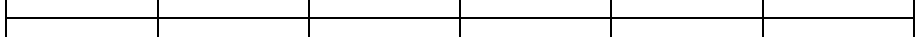
## 2. Email

Very good Very bad




## 3. Internet access

Very good Very bad



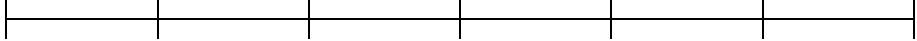
## 4. Camera

Very good Very bad



## 5. Music player

Very good Very bad



If you use any other function frequently, please write it in the parenthesis, and evaluate its usability.

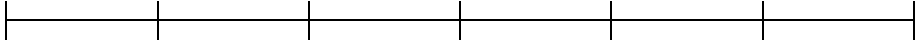
( )

Very good Very bad



( )

Very good Very bad



( )

Very good Very bad



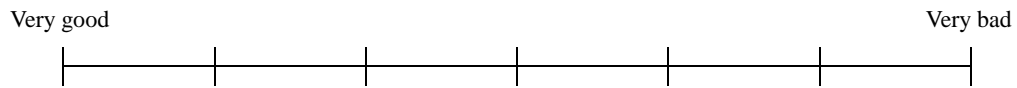
( )

Very good Very bad



(Please go to the next page)

9a) How do you evaluate the input system of mobile phones?



b) Why?

10) Have you become used to input on mobile phones?



11) On the whole, have you become used to using mobile phones?



(Please go to the next page)

2. Internet access by mobile phones

1) Do you access the Internet by mobile phone? Yes • No

If your answer is “Yes”, please go to 2), if it is “No”, please go to the next page.

2) How often do you access the Internet through a mobile phone?

( )

3) Please indicate Internet sites which you frequently access.

4) What are your impressions of browsing the Internet by mobile phone, in particular, compared with access by PC?

(Please go to the next page)

### 3. Email use by mobile phones

1) How many e-mails do you send in a day (Average)?

( )

2) How many e-mails do you receive (excluding junk mails and mail magazines) in a day (Average)?

( )

3) How long do you spend on using (i.e., creating or sending) e-mail in a day (Average)?

( )

4) How much do you use e-mail in the places below?

Your place



School/Workplace



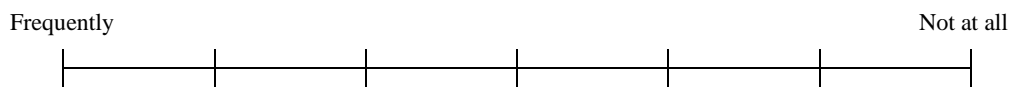
In transportation



On the street



Restaurant (including fast food shops)



Amusement sites



Please write if you have another place where you send mobile e-mail frequently.

( )

(Please go to the next page)

5a) How do you respond when you receive e-mail? Please choose one of the statements from 1 to 6 which shows the most similarity to your opinion. If you choose 3, please further choose from a to f.

1. I reply to e-mail immediately all the time except in extreme special circumstances.
2. I reply to e-mail immediately all the time if I am free.
3. I choose whether I reply immediately or not based on senders or content of e-mail.

→More specific? (Check all that apply).

- a. I reply immediately if the content is very important.
  - b. I reply immediately if the content of e-mail is easy to reply.
  - c. I reply immediately if I receive e-mail from my close friends.
  - d. I reply immediately if I receive e-mail from seniors or my boss, those who have a higher position in society.
  - e. I reply immediately if I receive e-mail from my family.
  - f. Other ( )
4. I generally reply immediately not based on the content or sender, but based on how easy the content of the e-mail is to reply to.
  5. I do not worry about anything, and just decide whether I reply or not based on my feelings or the situation.
  6. Other ( )

b) Why?

(Please go to the next page)

6) How do you keep your e-mail? (Check all that apply).

1. I protect important e-mails.
2. I create folders and separately keep received e-mails based on senders.
3. I frequently delete e-mails with short messages (ex. "thank you" or "I see" in a single e-mail).
4. I frequently delete unimportant mails such as junk mail or e-mail from mailing lists.
5. I delete all messages when the sent/received box is full.
6. No particular method.
7. Other (How? \_\_\_\_\_ )

7) What kind of impression do you have of communication through mobile phone e-mail?  
(Check all that apply).

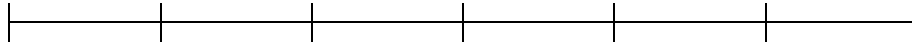
1. Communication by mobile phone e-mail is easy.
2. I can reply carefully because I can spend time to do so.
3. Mobile phone e-mail is convenient for small talk.
4. I can say what I tend to hesitate to say in person or by a phone call (such as to apologise) through mobile phone e-mail.
5. I find it easier to ask something by e-mail than face-to-face or in a phone call.
6. I can communicate more with people through e-mail.
7. I feel that the relationship with close friends is weak since we can communicate by mobile phone e-mail.
8. I tend to be emotional when communicating by mobile phone e-mail more than in person or in a phone call.
9. I feel anxiety or irritation when the reply does not come back immediately.
10. I feel sorry if I don't reply immediately when I receive e-mail.
11. If you have any other opinion, please write.

(Please go to the next page)

8a) To what extent do you speak of important matters in mobile e-mail?

Everything including very important matters

Only for unimportant matters



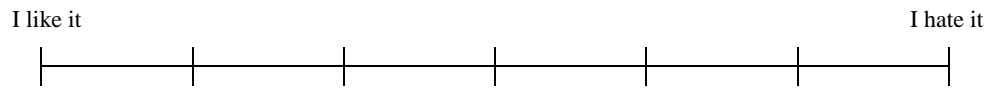
b) Please say more specifically for what matters you use e-mail, or not.

c) Why do you do so?

(Please go to the next page)

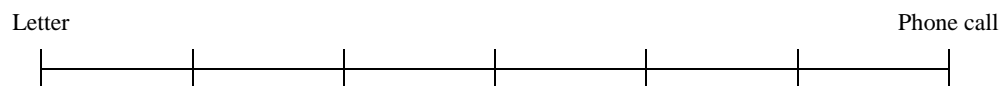


9a) What do you think of creating e-mail on a mobile phone?



b) Why do you think so?

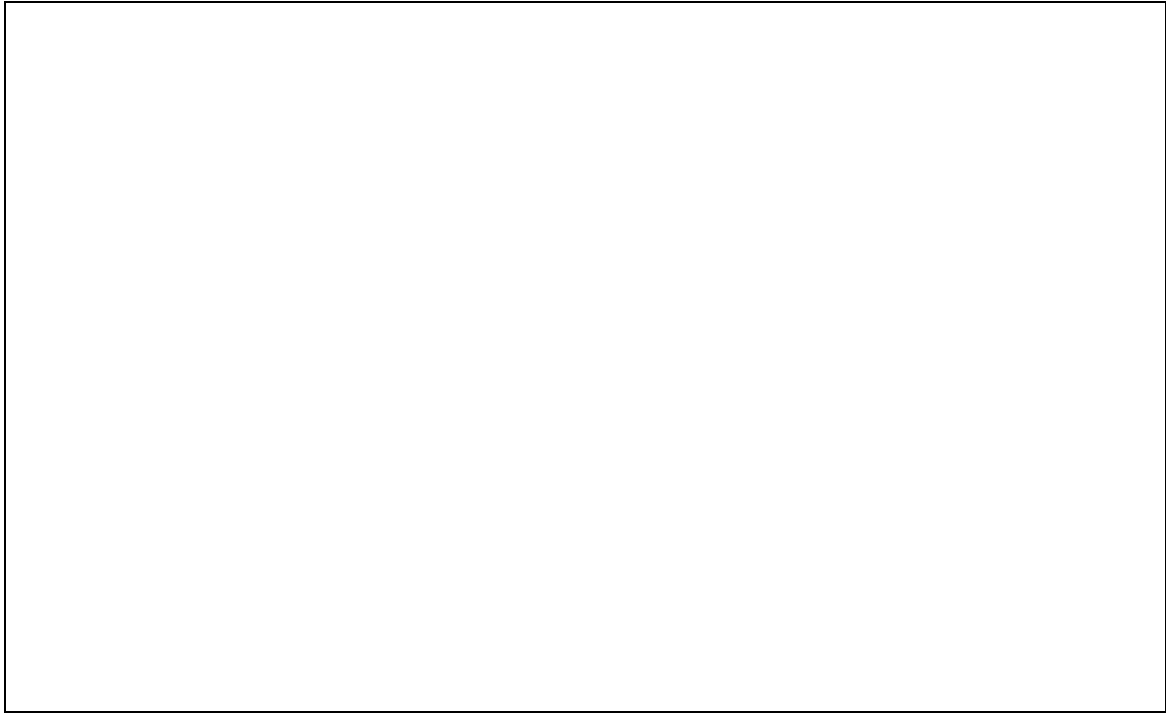
10a) Which do you think communication via e-mail is more similar to: communication by letters, or a phone call?



b) Why?

(Please go to the next page)

11) Please write your opinion freely about communication through mobile e-mail.

A large, empty rectangular box with a thin black border, intended for the respondent to write their opinion on the topic of communication through mobile e-mail.

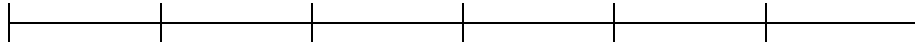
(Please go to the next page)

#### 4. Expressions in e-mail on mobile phones

1a) Do you frequently use abbreviations when creating e-mail on mobile phones?

Frequently

Not at all



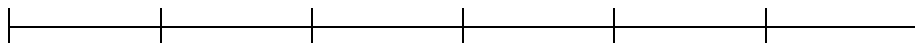
b) When you use abbreviations, what are the advantages and what are your intentions in doing so?

c) If you have abbreviations you use frequently, please list these and their source (if applicable)  
(ex. Mobile phone → Keitai)

2a) Compared with handwriting, do you use more, or less Kanji when creating texts by mobile e-mail?

Very much

Not at all



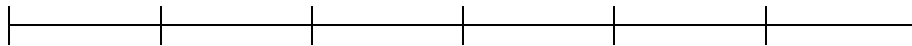
(Please go to the next page)

b) Please write your opinion as to why you input Kanji in such a way.

3a) Do you frequently use emoticons?

Frequently

Not at all



b) How do you input these emoticons? (Check all that apply).

1. Using pre-installed emoticons
2. Using emoticons which have been used by yourself
3. Creating new emoticons based on the available letters
4. Other ( )

c) What is your intention when you use emoticons?

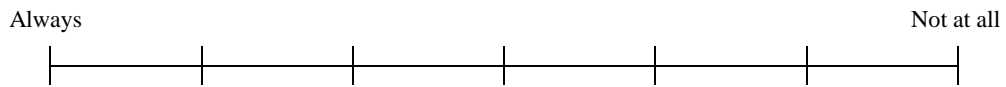
4a) Instead of abbreviations or emoticons, do you use any other unique expressions when creating e-mail on mobile phones? (ex. Often use “lol” at the end of phrases)

b) If you use such expressions, what are the advantages or your intentions in using them?

5) Please make a brief sample mobile e-mail text below which reflects the characteristics mentioned in 1) to 4)

(Please go to the next page)

6a) Do you change the language or expressions of your e-mail texts based on who will receive them?



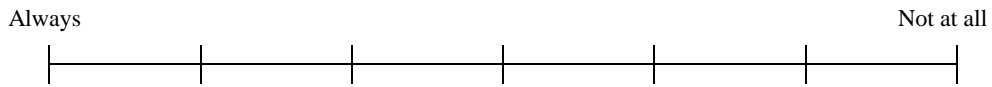
b) If you do so, please talk about it specifically, such as how you do and to whom.

7) Do you think the mobile phone influences Japanese expressions or the ability to use Japanese? Please write your opinion freely.

(Please go to the next page)

### 5. Japanese Language

1a) Recently, it has often been said that the Japanese language is not used in an appropriate manner, but do you actually feel this inappropriate use of Japanese in daily life?



b) How?

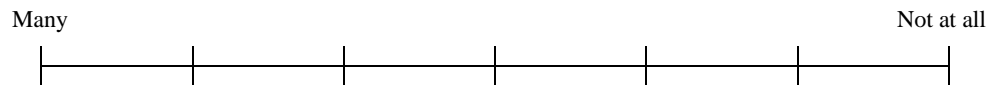
2a) Do you feel you don't use Japanese properly?



b) Why?

(Please go to the next page)

3a) Recently, it is said that people have stopped reading written works. How often do you read a book (such as a story or history)?



b) Specifically, how much? (e.g., 1 book per month) ( )

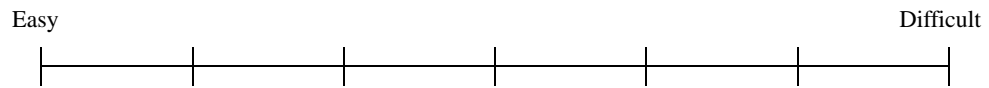
c) What do you think of 'reading'? Please write your opinion freely.

4) What do you think of the tendency to increase Katakana words? Please write your opinion freely.

(Please go to the next page)



5a) Do you think Japanese is easy, or difficult?



b) Why do you think so? In particular, which part do you feel is easy or difficult?

(Please go to the next page)

## 6. Media

1) Please list TV shows which you usually watch.

2) Please list magazines (such as fashion magazines, Information magazines, and comics) which you usually read.

3) Please list newspapers and the sections which you usually read (not just the TV guide).

(Please go to the next page)

4) Please list the Internet sites which you browse via PC.

5) Please list your favorite TV games.

6) Do you think that the media influences Japanese and its use? Please write your opinion.

(Please go to the next page)

Please tell me your profile

1. Age ( )

2. Sex M • F

3. Occupation ( )

4. Current place of residence and duration

To • Do	Shi • Cho	Duration
Hu • Ken	Son • ku	

5. The place you have lived for the longest time (If it is overseas, please insert the country in the first blank and the state or city in the second blank)

To • Do	Shi • Cho	Duration
Hu • Ken	Son • ku	

6. If you have lived anywhere other than the places listed above for more than 2 years, please mention. If you experienced moving to a different place in the same city, please count this as a single duration.

To • Do	Shi • Cho	Duration
Hu • Ken	Son • ku	
To • Do	Shi • Cho	Duration
Hu • Ken	Son • ku	
To • Do	Shi • Cho	Duration
Hu • Ken	Son • ku	
To • Do	Shi • Cho	Duration
Hu • Ken	Son • ku	
To • Do	Shi • Cho	Duration
Hu • Ken	Son • ku	
To • Do	Shi • Cho	Duration
Hu • Ken	Son • ku	

(Please go to the next page)

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Finally, please write your comments on this questionnaire and the research freely.

Thank you for your cooperation.

(This is the last page)

## Appendix C List of tables for each statistical test

Appendix C presents the result of each statistical test which is not presented in the main body of the text because of the matter of space.

- The Kendall test for co-occurrences of genres (Chapter 7.2)
- The Kruskal-Wallis test and Steel-Dwass test for gender differences in use of emoticons (Chapter 8.1)
- The Kruskal-Wallis test and Steel-Dwass test for gender differences in use of genres (Chapter 8.1)
- Mann-Whitney U test for different use of emoticons based on age and social roles (Chapter 8.2)

## The Kendall test for co-occurrences of genres (Chapter 7.2)

	SA	F	N	M	TD	D	A	T	G	PI	I	Q	Inv	S	O	R	Groom	E	C	Ex	H	SRJ	J	L	PN	Quo
SA																										
F	-0.001																									
N	-0.103	-0.030																								
M	-0.040	-0.058	0.016																							
TD	-0.020	-0.008	-0.004	0.001																						
D	-0.054	0.027	-0.028	-0.041	-0.003																					
A	-0.084	0.030	0.027	0.092	0.015	0.085																				
T	0.003	0.118	-0.047	-0.016	-0.009	0.035	0.025																			
G	-0.083	0.046	-0.003	0.044	0.022	0.060	0.056	0.059																		
PI	-0.070	0.033	-0.036	-0.021	-0.007	0.034	0.044	0.028	0.080																	
I	-0.100	0.044	-0.054	-0.053	0.002	0.033	0.008	-0.006	0.027	0.050																
Q	-0.162	-0.049	-0.070	-0.065	-0.008	0.015	-0.030	-0.085	0.027	-0.017	-0.019															
Inv	-0.006	-0.002	-0.009	0.015	0.004	0.020	-0.001	-0.006	0.022	0.002	0.012	-0.005														
S	-0.051	0.059	-0.031	-0.002	0.010	0.067	0.010	0.043	0.070	0.041	0.054	-0.012	0.003													
O	-0.086	0.102	-0.032	-0.048	0.008	0.041	-0.018	0.044	0.029	0.064	0.109	-0.018	0.005	0.114												
R	-0.066	0.021	-0.046	-0.006	0.002	0.047	0.058	0.044	0.111	0.101	0.014	-0.123	-0.003	0.004	0.013											
Groom	-0.071	0.017	-0.045	-0.045	-0.003	0.001	-0.047	-0.022	-0.032	-0.005	-0.008	-0.038	-0.002	0.019	0.056	-0.037										
E	-0.057	0.067	-0.028	-0.026	-0.002	0.035	-0.017	0.074	0.006	0.005	0.023	-0.029	-0.011	0.045	0.068	-0.002	0.020									
C	-0.040	0.035	-0.005	-0.031	0.009	-0.004	0.003	0.001	0.020	0.023	0.003	0.001	-0.005	0.048	0.039	0.027	-0.004	0.041								
Ex	-0.036	0.047	0.004	-0.018	-0.001	0.037	0.007	-0.003	0.019	0.041	0.080	0.008	0.002	0.074	0.114	0.015	0.026	0.024	0.020							
H	-0.052	0.072	0.004	-0.008	0.000	0.082	0.032	0.036	0.049	0.065	0.059	0.037	-0.005	0.075	0.099	0.038	0.026	0.059	0.068	0.076						
SRJ	-0.009	-0.001	-0.009	-0.008	-0.002	-0.009	-0.011	-0.008	0.004	-0.002	-0.001	-0.005	-0.001	-0.010	0.006	-0.009	-0.003	-0.001	0.004	-0.006	-0.003					
J	-0.011	-0.001	-0.011	-0.004	-0.003	0.003	-0.008	-0.005	-0.005	0.010	0.007	-0.011	-0.002	0.007	0.021	0.001	0.006	0.007	0.015	0.007	0.002	-0.001				
L	-0.027	-0.010	-0.003	0.002	-0.003	0.019	-0.001	-0.008	0.018	0.029	0.032	-0.009	0.000	0.028	0.003	0.017	-0.008	-0.008	-0.010	0.011	0.002	0.003	-0.004			
PN	-0.096	0.084	-0.018	-0.001	0.016	0.068	0.130	0.082	0.098	0.050	0.071	-0.002	0.000	0.055	0.113	0.021	-0.009	0.033	0.021	0.053	0.082	-0.007	-0.003	-0.004		
Quo	-0.014	-0.006	-0.001	0.000	-0.003	-0.008	-0.009	-0.003	0.004	0.055	0.007	-0.001	0.013	0.001	0.008	-0.002	-0.007	-0.001	0.008	0.003	-0.005	-0.001	-0.001	0.002	0.017	
IN	-0.046	0.045	0.013	0.011	0.002	0.060	0.059	0.059	0.054	0.026	0.019	0.044	0.025	0.059	0.022	0.045	-0.016	0.018	0.077	0.021	0.076	0.002	-0.005	0.000	0.078	0.005

*Note.* The values beyond .01 and below -.01 are coloured. *Abbreviations.* [SA] Short answer [F] Future coordination [N] Near-future coordination [M] Middle-future coordination [TD] Coordination of the day [D] Distant-future coordination [A] Apologies [T] Thanks notes [G] Greeting [PI] Personal information [I] Information [Q] Questions [Inv] Invitation [S] Suggestions [O] Opinions [R] Requests [Groom] Grooming [E] Emotional grooming [C] Notes of congratulations [Ex] Expectations [H] Hope [SRJ] Sex-related jokes [J] Jokes [L] Location information [PN] Personal news [Quo] Quotation [IN] Calling interlocutor by name

The Kruskal-Wallis test and Steel-Dwass test for gender differences in use of emoticons  
(Chapter 8.1)

	Length	N of moji	Emoji	Emoji as replacement	Emoji total
Kruskal-Wallis	<0.000**	<0.000**	<0.000**	<0.000**	<0.000**
Male-send	<0.000**	<0.000**	<0.000**	<0.000**	<0.000**
Male-receive	<0.000**	<0.000**	<0.000**	<0.000**	<0.000**
Same gender	<0.000**	<0.000**	<0.000**	<0.000**	<0.000**
Inter gender	0.006**	0.251	<0.000**	0.635	<0.000**
Female-receive	<0.000**	<0.000**	<0.000**	<0.000**	<0.000**
Female-send	<0.000**	<0.000**	<0.000**	<0.000**	<0.000**

\*  $p < .05$     \*\*  $p < .01$

	Decome	Decome as replacement	Decome total	Kaomoji	Emoticon total
Kruskal-Wallis	<0.000**	<0.000**	<0.000**	<0.000**	<0.000**
Male-send	<0.000**	<0.000**	<0.000**	0.119	<0.000**
Male-receive	<0.000**	<0.000**	<0.000**	0.012*	<0.000**
Same gender	<0.000**	<0.000**	<0.000**	<0.000**	<0.000**
Inter gender	<0.000**	<0.000**	<0.000**	<0.000**	<0.000**
Female-receive	<0.000**	<0.000**	<0.000**	<0.000**	<0.000**
Female-send	<0.000**	0.001*	<0.000**	0.953	<0.000**

The Kruskal-Wallis test and Steel-Dwass test for gender differences in use of genres (Chapter 8.1)

	SA	F	N	M	TD	D	A
Kruskal-Wallis	<0.000**	<0.000**	<0.000**	<0.000**	<0.000**	<0.000**	<0.000**
Male-send	<0.000**	<0.000**	<0.000**	0.903	0.220	0.960	<0.000**
Male-receive	<0.000**	<0.000**	<0.000**	0.675	0.003**	1.000	0.445
Same gender	<0.000**	<0.000**	<0.000**	<0.000**	<0.000**	<0.000**	<0.000**
Inter gender	0.003**	0.545	0.099	0.967	0.350	0.981	<0.000**
Female-receive	0.002**	<0.000**	<0.000**	<0.000**	0.010*	<0.000**	<0.000**
Female-send	0.000**	<0.000**	<0.000**	<0.000**	0.620	<0.000**	<0.000**

\*  $p < .05$     \*\*  $p < .01$

[SA] Short answer    [F] Future coordination    [N] Near-future coordination

[M] Middle-future coordination    [TD] Coordination of the day    [D] Distant-future coordination

[A] Apologies



## The Kruskal-Wallis test and Steel-Dwass test for gender differences in use of genres (continued)

	T	G	PI	I	Q	Inv	S
Kruskal-Wallis	<0.000**	<0.000**	<0.000**	<0.000**	<0.000**	0.003**	<0.000**
Male-send	0.075	<0.000**	0.249	0.082	0.001**	0.050	<0.000**
Male-receive	0.699	<0.000**	<0.000**	0.001**	<0.000**	0.005**	<0.000**
Same gender	<0.000**	<0.000**	0.237	<0.000**	<0.000**	0.465	<0.000**
Inter gender	0.622	0.826	<0.000**	0.438	0.947	0.692	<0.000**
Female-receive	<0.000**	0.001**	0.001**	<0.000**	0.121	0.411	<0.000**
Female-send	<0.000**	0.033*	<0.000**	0.050	0.458	0.068	<0.000**

[T] Thanks notes [G] Greeting [PI] Personal information [I] Information [Q] Questions  
[Inv] Invitation [S] Suggestions

	O	R	Groom	E	C	Ex	H
Kruskal-Wallis	<0.000**	<0.000**	<0.000**	<0.000**	<0.000**	<0.000**	<0.000**
Male-send	<0.000**	<0.000**	<0.000**	<0.000**	0.996	<0.000**	<0.000**
Male-receive	<0.000**	0.033**	<0.000**	<0.000**	0.509	<0.000**	<0.000**
Same gender	<0.000**	0.125	<0.000**	<0.000**	<0.000**	<0.000**	<0.000**
Inter gender	0.001**	0.014*	0.008**	<0.000**	0.659	0.361	0.952
Female-receive	<0.000**	<0.000**	<0.000**	<0.000**	<0.000**	0.623	<0.000**
Female-send	0.488	<0.000**	<0.000**	0.704	<0.000**	0.017*	<0.000**

[O] Opinions [R] Requests [Groom] Grooming [E] Emotional grooming  
[C] Notes of congratulations [Ex] Expectations [H] Hope

	SRJ	J	L	PN	Quo	IN
Kruskal-Wallis	<0.000**	<0.000**	<0.000**	<0.000**	<0.000**	<0.000**
Male-send	0.986	0.011*	0.224	<0.000**	<0.000**	<0.000**
Male-receive	0.011*	0.351	0.247	<0.000**	<0.000**	<0.000**
Same gender	<0.000**	0.313	0.635	<0.000**	<0.000**	<0.000**
Inter gender	0.024*	0.511	1.000	0.632	0.999	0.003**
Female-receive	<0.000**	<0.000**	0.007**	<0.000**	0.321	<0.000**
Female-send	0.501	0.001**	0.011*	0.035*	0.437	<0.000**

[SRJ] Sex-related jokes [J] Jokes [L] Location information [PN] Personal news  
[Quo] Quotation [IN] Calling interlocutor by name

## Mann-Whitney U test for different use of emoticons based on age and social roles (Chapter 8.2)

	Age	Social roles
Length	<0.000**	0.004**
Moji	<0.000**	<0.000**
Emoji	<0.000**	<0.000**
Emoji as replacement	<0.000**	<0.000**
Emoji total	<0.000**	<0.000**
Decome	<0.000**	<0.000**
Decome as replacement	<0.000**	<0.000**
Decome total	<0.000**	<0.000**
Kaomoji	<0.000**	<0.000**
Emoticon total	<0.000**	<0.000**

\*\*  $p < .01$