EFL learners' reading on mobile phones

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Forum

This study explores learners' preferences for reading on mobile phones. Ten twelfth-graders were given one shorter set and one longer set of texts. Each set consisted of three texts: one was delivered through paper, another email and the other mobile phone. After reading each set, students filled out a questionnaire. The results showed that paper was generally more preferred for both sets. For the shorter set, mobile phone was more preferred than email. For the longer set, mobile phone was the least preferred mainly because of the small screen and font.

Introduction

Bax (2003) identifies the ultimate goal for computer-assisted language learning (CALL) as that "the technology becomes invisible, embedded in everyday practice and hence 'normalised'" (p.23). The concept of normalization is now being realized in mobile technologies, which "will hold a central role in the future of computer-based language learning activities… provide learners with language learning resources that are no longer dependent upon institutional resources, or that put time and place constrictions on them" (Stockwell, 2007, p. 21). According to Lu's survey in 2008, 127 of 137 students taught by her in a vocational high school in Taiwan preferred mobile phones to PCs as the medium for learning English because the former was more convenient to use than the latter (Lu, 2008). Similarly, 71% of Thornton and Houser's (2005) 44 female Japanese university subjects also expressed a preference for receiving short mini vocabulary lessons on mobile phones rather than PCs. In addition, some Japanese opt to learn

on the mobile phone instead of the computer because the former is a handy device that enables them to study when their motivation is high (McNicol, 2004). From a practical perspective, although phone bills will be a concern, mobile-assisted language learning (**MALL**) relieves school authorities of the pressure of building expensive and spacious computer labs, and saves teachers the trouble of scheduling the use of computer classrooms (Kiernan & Aizawa, 2004). Mobile devices not only serve as more preferred and institutionally-economical instructional tools but prove more effective in facilitating language learning in some aspects than **PC**s (e.g., Thornton & Houser, 2005).

However, Stockwell's (2008) investigation revealed that not all learners were ready for **MALL** because of barriers resulting from keypad, screen, pedagogical factors, psychological factors, environmental factors and cost. With Stockwell's concerns in mind, the present study intends to survey high school **EFL** learners' preferences for reading on mobile phones when learners do not need to worry about the trouble with keypad and cost to see if it is practical for teachers to deliver reading materials to students via mobile phones. In addition, text length is another issue in **MALL** that may deserve teachers' attention. Although Thornton and Houser (2004) found no significant difference in students' learning of vocabulary from texts consisting of less than 100 words and shortened versions of these texts, they did not provide students' perception of reading texts of different lengths and the length difference between shorter and longer versions within 100 words might not be large enough to show any significant difference. To further investigate these issues in **MALL**, this study proposes the following research questions:

1. Do learners prefer reading shorter texts (54–60 words) on mobile phones to reading them on other media? Do learners have different preferences when reading longer texts (786–898 words)?
2. What advantages and disadvantages can learners perceive when reading shorter texts on mobile phones, via email, and on paper? Do learners have different perceptions of advantages and disadvantages when reading longer texts?

Literature review

Reading can contribute to language development. Krashen (1989) reviewed 144 studies to justify that reading input led to acquisition of vocabulary and spelling. From the evidence he gathered, even though instruction could account for gains for vocabulary and spelling, it demanded greater time and effort than incidental learning from reading. Although Krashen admitted extensive reading might not necessarily result in acquisition every time, he believed it could better explain how learners acquire language after class as well as how they know words beyond their current level, and most important of all, it could make learning more pleasurable. However, even **ESL** students at an advanced intermediate level experienced difficulty in choosing appropriate reading materials for themselves and thus did not feel very enthusiastic about self-selected reading (Zimmerman, 1997).

Since Zimmerman's (1997) finding was not in favor of self-selected reading, teacher-selected reading, or Kennedy and Levy's (2008) "push" mode of learning, may be a better source for learners to engage in extensive reading especially in an **EFL** context. Among various ways of making reading materials accessible to learners, delivering text messages through mobile devices for vocabulary learning, quizzes and surveys has been employed by many studies (Kukulska-Hulme & Shield, 2008) and may be worth teachers' consideration. Besides saving paper, research has suggested **MALL** increases learners' exposure to the target

content because it is trendy for them to go through the learning materials anytime and anywhere on mobile phones (Lu, 2008). The convenience of reading on the move is further supported by students' positive attitudes toward a portable e-book project evaluated in Kukulska-Hulme (2005).

To be portable, the screen size of a mobile device is inevitably small. In fact, reading on a small screen of a mobile device can be of benefit to learners or problematic. On one hand, a small screen cannot only help individuals narrow their attention "to a limited stimulus field, so that irrelevant thoughts and perceptions are filtered out" (Trevino & Webster, 1992, p.542) but also can be suitable for delivering a small and manageable amount of information that will not overload learners cognitive capacity, which supports the suggestion that "Mobile phone e-mail projects would appear to be suited to lower level learners as they can only work with a limited volume of language" (Kiernan & Aizawa, 2004, p. 81). On the other hand, staring at a small screen for a long time can create some health problems such as eyestrain (Balakrishnan, Yeow & Ngo, 2005). Therefore, finding texts of a suitable length that can make learners focus on reading but will neither overwhelm their cognitive capacity nor make their eyes too tired should be taken into consideration when teachers distribute mobile reading materials to students.

Method

Participants

Ten twelfth-graders who were around 18 to 19 years old and had been admitted to college participated in the study voluntarily. Each of them owned a mobile phone with Bluetooth compatible with their English teacher's. Among them, six were females and four were males. All of them had studied English as a required course since the fifth grade. Three months before the study, they took a Scholastic Aptitude Test (**SAT**) held annually for applications for college admission in Taiwan. In the English test of **SAT**, 72% of the total score aimed to test students' reading ability and 28% tested their writing ability. Each participant's English performance was listed from the highest to the lowest in Table 1.

Table 1: Each student's gender and **SAT** English performance

Student	Sex	SAT-English Level
1	F	12
2	F	12
3	F	11
4	M	10
5	F	9
6	F	8
7	F	8
8	M	6
9	M	4
10	M	3

Note: The original scores of **SAT**-English were converted into levels, with the highest level being 15 and the lowest 0.

Texts

There were two sets of narrative texts used in this study (see Appendix A and B). Each set consisted of three different texts presented through three different media: paper, email and mobile java text (see Figure 1) transmitted through Bluetooth technology. One set of texts were shorter (54–60 words) at a Flesch-Kincaid Grade Level of about 6, while the other set were longer (786–898 words) at a Flesch-Kincaid Grade Level of about 5.[1] The shorter texts were found online and the longer texts were adapted from *Far East New English Reader for Senior High Schools.* The length of the shorter texts only took up one screen or two on mobile phones and such short texts could be read within one minute. The longer texts were at a typical length of a reading in senior high school English textbooks in Taiwan.
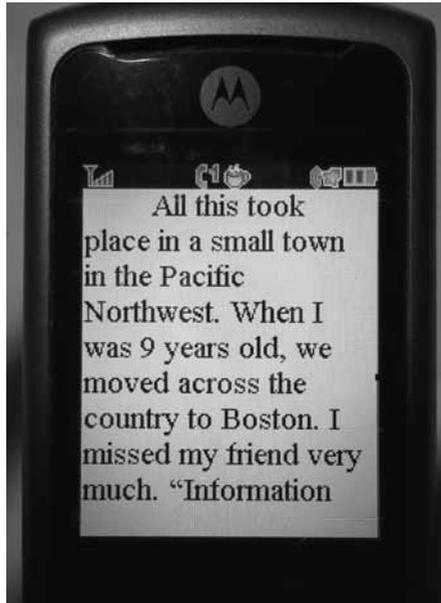

Figure 1: A screen shot of the text presentation on the mobile phone.

Instruments

There were two questionnaires used in this study (see Appendix C). The shorter-text questionnaire was designed to check whether participants read and comprehended the shorter texts from their summary in L1 (Chinese), and to ask participants to rank their preference for text delivery media and to express their perception of advantages and disadvantages of each medium. The longer-text questionnaire asked the same questions as the shorter-text questionnaire but it aimed to collect participants' opinions about the longer texts.

Procedures

In the beginning, the participants received three shorter texts: one was given on paper from their English teacher, who was one of the researchers, another was sent via email as an attachment[2] and the other was transmitted from the teacher's mobile phone to their mobile phones through Bluetooth one by one. Each participant could read at his/her own pace anytime and after reading the shorter texts, he/she was asked to fill out the shorter-text questionnaire. When the shorter-text questionnaire was finished, the three longer texts were distributed through paper, email and Bluetooth transmission. After reading the longer texts at their own pace, participants were asked to fill out the longer-text questionnaire. Finally, informal interviews were held to clarify some of the confusing ideas expressed in the questionnaires and to confirm some of the researchers' speculations. The whole procedures are illustrated in the following flow chart (Figure 2).

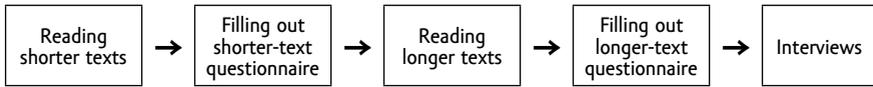| Reading shorter texts | → | Filling out shorter-text questionnaire | → | Reading longer texts | → | Filling out longer-text questionnaire | → | Interviews |

Figure 2: the flow chart of study procedures

Results

All of the participants finished reading the shorter texts and filling out the shorter-text questionnaire. However, due to the length and difficulty of the longer texts, only the seven higher achievers on SAT-English finished reading the longer texts and filling out the second questionnaire. For those who finished reading the texts, their L1 summaries showed that they could comprehend the texts.

The results concerning the two research questions are presented as follows.

Research question 1a: Do learners prefer reading shorter texts on mobile phones to reading them on other media?

There were great individual differences in the participants' preferences for reading the shorter texts through the three media, with each medium chosen by some as the most preferred, by some as the second preferred, and by the others as the least preferred (see Table 2). For the most preferred medium, five of ten chose paper, four mobile phone and one email; for the second preferred medium, four chose paper, four email and two mobile phone; for the least preferred medium, five chose email, four mobile phone and one paper. When the participants' preferences were converted into scores, with the most preferred three points, second preferred two points and the least preferred one point, paper ranked the highest (24), mobile phone came in the second (20), and email scored the lowest (16). In other words, as far as the ten participants were concerned, paper tended to the most preferred medium for reading the shorter texts, mobile phone the second and email the least.

For the seven participants who completed the whole study, four chose paper, two mobile phone and one email as the most preferred, three chose paper, two mobile phone and two email as the second preferred, and four chose email and three mobile phone as the least preferred when reading the shorter texts. When their preferences were converted into

scores, paper was still the most preferred (18), mobile phone still the second (13), and email still the least (11).

Table 2: Participants' preference for reading the texts

Student	Shorter Texts			Longer Texts		
	1st preferred	2nd preferred	3rd preferred	1st preferred	2nd preferred	3rd preferred
1	paper	mobile phone	email	paper	mobile phone	email
2	email	paper	mobile phone	paper	email	mobile phone
3	mobile phone	paper	email	paper	email	mobile phone
4	paper	Email	mobile phone	paper	email	mobile phone
5	mobile phone	paper	email	mobile phone	paper	email
6	paper	email	mobile phone	email	mobile phone	paper
7	paper	mobile phone	email	email	mobile phone	paper
8	mobile phone	paper	email	X	X	X
9	paper	email	mobile phone	X	X	X
10	mobile phone	email	paper	X	X	X

Research question 1b: Do learners have different preference when reading longer texts?

Table 2 shows among the seven participants who completed the whole study, four chose paper, two email and one mobile phone as the most preferred, three chose email, three mobile phone and one paper as the second preferred, and three chose mobile phone and two email and two paper as the least preferred for reading the longer texts. When their preferences were converted into scores, paper was still the most preferred (16), email became the second (14) and mobile phone was lowered to the least (12).

Generally speaking, when learners read the longer texts, the preference for email increased but that for paper and mobile phone decreased. When participants' preferences were compared individually between the shorter texts and the longer texts, it was found actually Students No. 1, 4, 5 did not change their preference but Students No. 2, 3, 6, 7 did. Student No. 2 preferred email to paper in reading the shorter texts but preferred paper to email in reading the longer ones. Student No. 3 switched her preference for mobile phone from the most preferred in reading the shorter texts to the least preferred in reading the longer ones. A similar change happened to Student No. 6 in her preference for paper. Student No. 7 also made a change from paper as the most preferred and email as the least preferred in reading the shorter texts to the other way around in reading the longer ones.

Research question 2a: What advantages and disadvantages can learners perceive when reading shorter texts on mobile phones, via email, and on paper?

According to these learners' perceptions categorized in Table 3 and Table 4, the mobile phone text enabled them to read anytime and anywhere without wasting or losing paper but it was troublesome for them to receive texts through Bluetooth, to read the small font and to scroll up and down the text. As for the email text, it was convenient for them to share the text with others, to enlarge words, to look up words in the online dictionary, or to translate the entire text online, but most of them could not read the text when the

computer or the Internet was not available, so it was inconvenient for them to read anytime and anywhere. As for the paper text, the printed words looked familiar and clearer to them, and it was convenient for them to reread the difficult part and to read anytime and anywhere without turning on any device, caring about whether they had got used to using them, or even worrying about the health threat posed by the electronic waves, but it wasted natural resources, tended to be missing and became dirty easily.

Table 3: Students' perception of the advantages of the three media in reading shorter texts

Category	Medium	N	Example comments
Access convenience	phone	8	It's convenient to read the text anytime anywhere.
	email	2	It's convenient to access the text.
	paper	5	I can read the text directly without turning on any electronic device.
Text keeping	phone	1	It's convenient to keep the text.
Layout	email	1	The layout is more consistent than that of the mobile phone text.
Font changing	email	1	I can change the font of the words on my computer as I wish.
Dictionary and translation	email	1	I can look up unknown words and translate the text on the computer.
Health	paper	1	You never need to worry about the health threat posed by the electronic waves.
Entertainment	phone	1	Mobile phone can be used to read something when you are bored.
	email	1	When you are bored, you can read your email.
Text sharing	email	2	It's easy to share the text with others.
	paper	1	You can distribute the text to a stranger in a public place.
Rereading	paper	1	It's easier to reread the difficult part of the text.
Clarity	paper	1	Printed words look clearer.

Table 4: Students' perception of the disadvantages of the three media in reading shorter texts

Category	Medium	N	Example comments
Access inconvenience	phone	3	It's not convenient to get the text via Bluetooth.
	email	6	It's troublesome to read an email because only when the computer is available can you read.
	paper	2	I need to get the text in person.
Small font	phone	3	If the words can be larger, it will be better.
Problems of keeping texts	paper	7	It's easy to lose the text and make it dirty.
Device restriction	phone	4	It's impossible to read when the phone runs out of battery. It's troublesome to scroll up and down to read the text.
	email	1	The speed of the Internet at my home is slow so it took me some time to open my email.
Unfamiliar practice	phone	1	Reading on mobile phone is not suitable for those who seldom use or don't have mobile phone.
	email	1	It's troublesome for those who seldom use the computer to read an email.
Concerns of text sharing	phone	1	If I want to share the text via Bluetooth, the receiver should be near me. If I want to share the text to others far from me, it costs me money to send a text message.
	email	1	If I want to share the text to those who don't use the computer often, he may not see it.
Wasting natural resources	paper	1	It wastes natural resources.
Cost	paper	1	It costs money to print out the text.

Table 5: Students' perceptions of the advantages of the three media in reading longer texts

Category	Medium	N	Example comments
Access convenience	phone	7	It's convenient to access the text.
	email	3	It's quite convenient to receive the text online.
	paper	5	I can read the text right after I receive it.
Text keeping	phone	1	You will not lose texts as easily as you do with a paper text.
Layout	email	1	The layout is more consistent than that of the mobile phone text.
Font changing	email	2	It's easy to read the text and I can change the font of the words on my computer as I wish.
Dictionary and translation	email	2	I can look up unknown words in the online dictionary. I can get the difficult part translated instantaneously.
Health	paper	1	I can read the text without worrying that I will suffer from eyestrain.
highlighting	paper	1	It's convenient to underline important points.
Battery-free	paper	1	I can read the text anytime anywhere without worrying whether the battery is dead.

Table 6: Students' perception of the disadvantages of the three media in reading longer texts

Category	Medium	N	Example comments
Access inconvenience	phone	1	It's troublesome to get the text via Bluetooth.
	email	4	Only when the computer and the Internet are available can you read.
Small font	phone	5	The font was so small that I read the wrong line of the text.
Problems of keeping texts	email	1	The text tends to be deleted accidentally.
	paper	5	It's easy to lose the text.
Feeling overwhelmed	paper	1	The number of words in the longer paper text looked overwhelming to me.
No access to dictionaries	paper	1	It's troublesome to look up unknown words in the dictionary.
Eye strain	phone	2	It's more difficult and tiring for me to read a long text on mobile phone.

Research question 2b: Do learners have different perceptions of advantages and disadvantages when reading longer texts?

For the top seven learners, the pros and cons of each medium in reading the longer texts were similar to those in reading the shorter ones. However, more learners mentioned the advantages of font changing and dictionary and translation when reading the longer text sent via email and more learners complained that the font on the longer mobile phone text was too small. Other differences found between the two questionnaires might also suggest that learners were more likely to read the wrong line and suffer from eyestrain when reading the longer text on the mobile phone. In the further interview, Student No. 3 expressed eyestrain resulting from reading the longer text on the mobile phone as the main reason why she lowered her preference for the mobile phone texts from the most preferred to the least preferred. In addition, student No. 4 showed a more positive attitude toward the email longer text than the email shorter text by saying compared with the shorter email text, the longer email text was more worth the trouble of finding a place with computers and the Internet to read it. Student No. 6 provided another noteworthy point that the number of words in the longer paper text looked more overwhelming to her, though actually the paper text was not the longest. She mentioned the main reason why she changed her choice of the paper text from the most preferred in reading the shorter texts to the least preferred in reading the longer text was that after a first glance at the longer paper text, she already knew there were so many words in the text and felt overwhelmed; nevertheless, reading texts screen by screen helped her forget the huge number of words. Finally, although Student No. 7 recognized the benefit of underlining important points in the longer paper text, she needed to rely more on external help such as dictionaries and translation to read the longer texts, so when reading the longer version, she lowered her preference for paper, which was not equipped with any external help inherently. In addition, she suffered from eyestrain when reading the longer mobile phone text, so she decided to choose email as the most preferred medium in reading the longer texts.

Discussion

Although the number of participants in this study is so small that it is impossible to conclude which medium is significantly preferred by high school students, the investigation still sheds some light on considerations teachers can take when they deliver reading materials via mobile phone to high school students. The results revealed the shorter mobile phone text was more acceptable to learners than the longer one mostly because the latter was more demanding for the eyes. However, such results should be interpreted with caution because the shorter text was delivered before the longer one, which means students' preference for the shorter mobile phone text could be influenced by the novelty of receiving texts on the mobile phone for the first time.

There were some complaints about the small size of the mobile phone screen, as has been seen in studies such as Stockwell (2008), but such a small screen is not always a weakness. Although none of the participants mentioned being more attentive to "a limited stimulus field" (Trevino & Webster, 1992, p. 542), one of the students felt a screenful of information was more manageable. Indeed, seeing a whole page written in a foreign language is anxiety-provoking (Saito, Horwitz & Garza, 1999), and from the perspective of Sweller's (1994) cognitive load theory, the amount of information printed in a page usually demands greater processing capacity than what can be included within a small screen and thus becomes a more defective presentation. In addition, it is not always fair to blame the size of the screen for causing eyestrain. The amount of cognitive effort learners devote to the process and their reading speed may also account for the problem. From the teacher's observation, it is quite common to see students read Chinese novels on the mobile phone. Compared with the length of the texts used in this study, the Chinese novels are definitely longer, but why can they endure the discomfort? The faster speed of reading L1 with relatively less cognitive effort might be the key.

No matter how positive the arguments for reading on the mobile phone can be, it is not negligible that the paper texts were the most preferred among the participants, and that the email longer text was more preferred than the longer one on the mobile phone because of the external online support and the bigger screen of computer. Nevertheless, if the long term benefits of mobile reading are considered, paper and email texts may not be as preferable. Although many MALL studies mention the problem of cost (e.g., Ally, Schafer, Cheung, McGreal, & Tin, 2007), it may not be a big issue in the long run. If floods of reading materials are needed to facilitate learning, paper texts are doomed to be inferior to electronic texts because of the cost of paper, printing, distribution (Bradshaw & Crutcher, 2006), and even storage. In addition, since there were only two sets of texts used in this study, it is reasonable that these participants tended to be willing to take the trouble to read on the computer, but if they are required to read more texts, mobile texts may stand a better chance.

To make reading on mobile phones more popular, the design of mobile phones can be improved based on the advantages of reading on the other media. For example, if mobile phone users can highlight points as easily as they do on paper texts or change font as freely as they do on the computer, more people may prefer to read on mobile phones.

Conclusion

With such a small pool of participants, there was no significant difference found in high school students' preferences for how reading materials should be delivered, but generally speaking, paper texts were most preferred, and depending on the length of the texts, mobile phone texts or email texts came in second. Even though there is no conclusive finding in this study, it suggests mobile phone texts might have a promising future as long as the text is not too long, the advantage of the small screen size can be well used, and the relatively lower cost of electronic texts as well as the greater convenience of mobile reading can be recognized. Therefore, future studies can explore more on these factors that can enlighten us on how to deliver reading materials to learners' advantage.

Besides the small number of the participants, there are other limitations to this study. As one reviewer indicated, since all the texts were not exactly at the same Flesch-Kincaid Grade Level, participants could read at their own pace and the presentation order of short and long texts was not counterbalanced, the possibility of confounding text length with text difficulty, the presentation order and reading time could not be ruled out. In addition, there are three more conditions that make it difficult to generalize the results to other high school students in Taiwan. First, these participants were all seniors in high school, whose English proficiency is assumed to be higher than freshmen or juniors. Second, these seniors had been admitted to college, so they were not under so much pressure of passing the college entrance exam as most of high school students are and thus were more likely to try learning in different ways. Third, as one reviewer mentioned, these participants owned more advanced mobile phones than some of their peers, so they might have responded better to the mobile mode of delivery. Therefore, any attempt to replicate the study should bear the above conditions in mind.

Notes

1. Since the core measures of the Flesch-Kincaid Grade Level are word length and sentence length, the shorter texts, though containing fewer sentences in total, consisted of longer sentences than the longer texts on average and thus were at a level a little bit higher than the longer texts.
2. One reviewer questioned if any participant printed out the emailed text to read it. However, the questionnaire results did not show any sign that participants did that and further interviews confirmed that none of the participants took the trouble to print out the emailed text.

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Appendix A

The shorter texts

1. The paper text

One day, a little boy looked at his mother's hair and sadly said: "Why is some of your hair white, Mom?"

The mother replied, "Well, every time when you make me cry, one of my hairs turns white."

The boy thought about this a while, and then said, "Momma, how come all of grandma's hairs are white?"

2. The email text

Two lawyers went into a restaurant and ordered two drinks. Then they took out sandwiches from their briefcases and started to eat. The owner became quite concerned and marched over and told them, "You can't eat your own sandwiches in here!"

The lawyers looked at each other, shrugged their shoulders and then exchanged sandwiches.

3. The mobile phone text

Jack and Peter applied for a position at a company and were asked to take a test. Upon finishing the test, both missed one question, but only Peter got hired.

Jack was unhappy about the result and asked the manager why.

"Simple,"said the manager, "Peter put down on question #5, 'I don't know.' You put down, 'Neither do I.'"

Appendix B

The longer texts

1. The paper text

Six minutes to six, said the clock in Grand Central Station. A tall young soldier's heart was beating uncontrollably. In six minutes, he would see the woman who had filled such a special place in his life for the past 13 months, the woman he had never seen, yet whose written words had been with him.

In one of his letters, he had told her that he often felt fear, and only a few days before a battle he had received her answer: "Of course you fear… all brave men do. Didn't King David know fear? That's why he wrote the 23rd Psalm. Next time you doubt yourself, I want you to hear my voice reciting to you: 'Yea, though I walk through the valley of the shadow of death, I shall fear no evil, for you are with me.'" And he had remembered; he had heard her imagined voice renewing his strength and skill.

Now he was going to hear her real voice. Four minutes to six. He became very excited.

At the station, people were walking fast. A girl passed close to him, and he took a careful look at her. She was wearing a red flower in her suit, but it was not the little red rose they had agreed on. Besides, this girl was too young, about 18, but Hollis Meynell had told him she was 30. "Well, that doesn't matter," he had answered. "I'm 32." He was 29.

His mind went back to that book, *Of Human Bondage.* Throughout the book were **73**

wonderful notes in a woman's writing. He had never believed that a woman could see into a man's heart so understandingly. Her name was on the bookplate: Hollis Meynell. He found her address from a telephone book. He had written a letter to her, and she had answered.

They had been writing to each other for 13 months. Now he believed he loved her, and she loved him.

But she had refused to send him her photograph. "If your feeling for me has any honest basis, what I look like won't matter. If I'm beautiful, I'll always worry that you love me just because of my beauty. If I'm not beautiful, then I'll always fear that you wrote only because you were lonely. No, don't ask for my picture. When you come to New York, you will see me and make your decision. Remember, both of us are free to stop or go on after that – whichever we choose . . ."

One minute to six – Lieutenant Blandford's heart leaped higher than his plane had ever done.

A young woman was coming toward him. Her figure was long and slim; her blond hair lay back in curls from her delicate ears; her eyes were blue as flowers. In her green suit, she was like springtime which has come alive.

He started toward her, entirely forgetting to notice that she was wearing no rose, and as he moved, she gave him a small smile.

"Going my way, soldier?" she murmured.

Uncontrollably, he made one step closer to her. Then he saw Hollis Meynell.

She was standing almost directly behind the girl, a woman past 40, her gray hair tucked under a worn hat. She was a little fat but she wore a red rose in her brown coat.

The girl in the green suit was walking quickly away.

He felt as though he were being cut in two, so keen was his desire to follow the girl, but so deep was his longing for the woman whose letters had been with him for the past 13 months; and there she stood. Her pale, plump face was gentle and sensible; he could see that now. Her gray eyes gave him warmth and kindness.

He did not hesitate. His fingers gripped the copy of *Of Human Bandage,* which was to identify him to her. This would not be love, but it would be something more precious, even rarer than love – a friendship for which he had been and must ever be grateful.

He squared his broad shoulders, saluted and held the book out toward the woman. "I'm Lieutenant John Blandford, and you – you are Miss Meynell. I'm so glad you could meet me. May . . . may I take you to dinner?"

The woman smiled. "I don't know what this is all about, son," she answered. "That young lady in the green suit begged me to wear this rose on my coat. And she said that if you asked me to go out with you, I should tell you that she's waiting for you in that big restaurant across the street. She said it was some kind of a test."

2. **The email text**

The Necklace

She was one of those pretty young ladies, born, as if by mistake, into a middle-class family. Without any hope of marrying a rich man, she became a wife of a clerk. She was unhappy because she had neither beautiful dresses nor expensive jewels, nothing. All these things, which another woman of her position would not have noticed, tortured and angered her.

74 One evening her husband told her that they had been invited to a high-class party. Instead

of being delighted at this opportunity, she threw the invitation upon the table murmuring: "I have no dress and therefore I cannot go to this party. Give your card to your friend whose wife has nicer clothes than I."

Though he was sad, he answered her patiently: "Let us see, Matilda. How much would a suitable dress cost?"

She reflected, thinking of a sum she could ask for without bringing an immediate refusal. Finally, she said: "Four hundred dollars ought to cover it."

He turned a little pale, but he answered: "No problem."

As the party was approaching, Matilda seemed anxious and said to her husband one evening: "I have no jewelry to wear. I would prefer not to go to this party. There is nothing more humiliating than to look so poor among rich women."

Then her husband suggested she borrow some from her rich schoolmate, Jeanne.

The next day she went to her friend's house and told her story. Jeanne took out a large jewelry box, opened it, and said: "Choose, my dear."

She saw at first some bracelets, pearls, and jewels. She could not decide what to take. Suddenly she discovered, in a black box, a superb necklace of diamonds, and her hands trembled as she took it up. She asked, in a hesitating voice:

"Could you lend me this?"

"Why, yes, certainly."

She embraced her friend with passion, and then went away with her treasure.

The day of the party arrived. Matilda was the prettiest and full of joy. All the men noticed her and wanted to dance with her. She danced in a cloud of happiness that came from all this admiration.

After the party was over, her husband handed her the cheap coat she had brought for returning home, but it didn't go with her beautiful dress. She felt this and wished to hurry away in order not to be noticed by the other women dressed in rich furs. Her husband tried to stop her, but she would not listen and went down the steps rapidly.

After they returned to their apartment, it was all over for her. She removed the coat from her shoulders and stood before the mirror, for a final view of herself. Suddenly she uttered a cry and turned toward her husband shockingly: "I have – I have – I no longer have Jeanne's necklace."

They looked everywhere but could not find it. Finally, her husband got up and went out to look for the necklace. However, he couldn't find it and decided to do something to replace this jewel.

Then they found a shop with a necklace that seemed to them exactly like the one they had lost. It would cost them ninety-six thousand dollars.

They borrowed the money, a thousand dollars here, five hundred there, without even knowing whether they could pay it back. Finally, they went to get the new necklace, and gave it to Jeanne.

Matilda now knew the horrible life of necessity. They sent away the maid and moved to a smaller apartment. She learned the heavy cares of a home, the hard work of a kitchen without complaining. She took the garbage to the street each morning and brought up the water, stopping often on the stairs to breathe. And, dressed like other poor woman, she **75**

went to the grocery store with her basket on her arm, bargaining to the last coin of her miserable money. Her husband, meantime, worked evenings, and nights, too.

This life lasted for ten years. At the end of ten years, they had paid everything back.

Matilda seemed old now. She had become a strong woman and spoke in a loud tone. But sometimes, she would sit before the window and think of that party where she was so beautiful and so admired.

How would it have been if she had not lost that necklace? Who knows? How strange life is, and how full of changes! How small a thing will ruin or save one!

One Sunday, as she was taking a walk, trying to forget the cares of the week, she suddenly met Jeanne, still young, still pretty.

She approached her. "Good morning, Jeanne. I am Matilda."

Her friend uttered a cry of surprise. "Oh! My poor Matilda! How you have changed– "

"Yes, I have had some miserable days – and all because of you– "

"Because of me?"

"Do you remember the diamond necklace that you lent me? Well, I lost it. I returned another to you exactly like it. And it has taken us ten years to pay for it. But it is finished."

Jeanne stopped short.

"You bought a diamond necklace to replace mine?"

"Yes. You did not notice it then? They were just alike."

She smiled with a proud and simple joy. Jeanne was touched and took both her hands as she replied:

"Oh! My poor Matilda! Those diamonds were false. They were not worth over five hundred dollars!"

3. **The mobile phone text**

When I was quite young, my father had one of the first telephones in our neighborhood. I was too little to reach the telephone, but used to listen with fascination when my mother used to talk to it.

Then I discovered that somewhere inside the wonderful telephone lived an amazing person – her name was "Information Please" and there was nothing she did not know. "Information Please" could tell us anybody's number and the correct time.

My first personal experience with "Information Please" came one day while my mother was visiting a neighbor. Playing with my father's tools in the basement, I accidentally hurt my finger with a hammer.

The pain was terrible, but there didn't seem to be any reason in crying because there was no one home to give sympathy. I walked around the house sucking my throbbing finger, finally arriving at the stairway.

The telephone!

Quickly, I ran for the chair in the living room and dragged it to the stairway. Climbing up, I picked up the receiver and held it to my ear. "Information Please," I said into the telephone just above my head.

A click or two and a small clear voice spoke into my ear. "Information."

"I hurt my finger. . ." I wailed into the phone. The tears came readily enough now because I had an audience.

"Isn't your mother home?" came the question.

"Nobody's home but me." I answered.

"Are you bleeding?"

"No," I replied. "I hit my finger with the hammer and it hurts."

"Can you open your icebox?" she asked. I said I could. "Then take out a little piece of ice and hold it to your finger," said the voice.

After that, I called "Information Please" for everything. I even asked her for help with my math homework.

Then, there was the time Petey, our pet bird died. I called "Information Please" and told her the sad story. She listened, then said the usual things grown-ups say to soothe a child. But I was unconsoled. I asked her, "Why is it that birds should sing so beautifully and bring joy to all families, only to end up as a heap of feathers on the bottom of a cage?"

She must have sensed my deep concern, for she said quietly, "Paul, always remember that there are other worlds to sing in." Somehow I felt better.

Another day I was on the telephone. "Information Please."

"Information," said the now familiar voice. "How do you spell fix?" I asked.

"F-I-X."

All this took place in a small town in the Pacific Northwest. When I was 9 years old, we moved across the country to Boston. I missed my friend very much. "Information Please" belonged in that old wooden box back home, and I somehow never thought of trying the tall, shiny new phone that sat on the table in the hall.

As I grew into my teens, the memories of those childhood conversations never really left me. Often, in moments of doubt and confusion I would recall the sense of security I had then. I appreciated now how patient, understanding, and kind she was to have spent her time on a little boy.

A few years later, on my way west to college, my plane landed in Seattle. I had about half an hour between planes. I spent 15 minutes or so on the phone with my sister, who lived there now. Then without thinking what I was doing, I dialed my hometown operator and said, "Information, Please."

Miraculously, I heard the small, clear voice I knew so well, "Information." I hadn't planned this but I heard myself saying, "Could you please tell me how to spell fix?"

There was a long pause. Then came the soft spoken answer, "I guess your finger must have healed by now."

I laughed. "So it's really still you," I said. "I wonder if you have any idea how much you meant to me during that time."

"I wonder," she said, "if you know how much your calls meant to me. I never had any children, and I used to look forward to your calls."

I told her how often I had thought of her over the years and I asked if I could call her again when I came back to visit my sister.

"Please do," she said. "Just ask for Sally."

Three months later I was back in Seattle. A different voice answered "Information." I asked for Sally.

"Are you a friend?" she said.

"Yes, a very old friend," I answered.

"I'm sorry to have to tell you this," she said. "Sally had been working part-time the last few years because she was sick. She died five weeks ago."

Before I could hang up she said, "Wait a minute. Did you say your name was Paul?"

"Yes."

"Well, Sally left a message for you. She wrote it down in case you called. Let me read **77**

it to you." The note said, "Tell him I still say there are other worlds to sing in. He'll know what I mean."

I thanked her and hung up. I knew what Sally meant.

Appendix C

Questionnaire

Name:
1. Please summarize the three texts
   1. mobile phone:

   2. email:

   3. paper:

2. Please rank the three ways of receiving texts (mobile phone, email, and paper) based on your preference.
   Most preferred: Second preferred: Least preferred:

3. Please state the advantages and disadvantages of each way of receiving texts.
                                    Advantage   Disadvantage

   mobile phone

   email

   paper

Please fill in each blank. If you have nothing to fill in, please put an "X" in it.