Freewriting by Hand Versus Typing: An Initial Investigation into Students' Attitudes and Performance

Kevin OTTOSON

Freewriting activities have gained popularity in the EFL classroom partly due to their ability to help develop writing fluency. Several studies (Cohen, 2014; Dickinson, 2014; Hirata & Hall, 2019; Leblanc & Fujieda, 2013; Ottoson & Crane, 2016; Sponseller & Wilkins, 2015) have found that writing fluency increases when Japanese university students self-select their topics for conventional freewriting activities in the classroom. Due to the COVID-19 pandemic, more EFL learners are using their computers or electronic devices in the foreign language classroom. Despite this increase in electronic devices in the EFL classroom, little is known about their use in EFL freewriting activities. Thus, this paper aims to help address this gap in the literature by examining Japanese university students' attitudes and performance toward both typed and handwritten freewriting sessions. Analysis of freewriting output through words per minute (WPM) support and results of a post-course questionnaire support offering computer-supported freewriting activities in the EFL classroom. Suggestions for freewriting sessions and future investigation are provided.

INTRODUCTION

Elbow and Belanoff (2000) describe freewriting as the act of writing about any ideas or thoughts that come to mind over the course of a period of time. In his book, *Writing without Teachers*, Peter Elbow (1973), one of the first writers to praise the benefits of freewriting, famously encouraged students when freewriting to don't stop, write quickly, and don't go back to edit. Elbow (1998) and Elbow and Belanoff (2000) describe two common methods of freewriting. One method is guided, in which the instructor provides a topic or focus for the freewriting session. Another method is unguided, where the instructor allows the students to choose their topic or focus for freewriting. A study by Farmer (2020) found that most Japanese university participants (91%) preferred to self-select their own topics for freewriting. However, other studies (Cohen, 2014; Dickinson, 2014; Farmer, 2020; Hirata & Hall, 2019; Leblanc & Fujieda, 2013; Ottoson and Crane 2016; Sponseller and Wilkins, 2015) have shown that Japanese university students preferred teacher-selected topics despite the fact that their writing fluency was higher when they selected their own topics. Ottoson, et al. (2019) aimed to mitigate this conundrum by providing a list of popular freewriting topics (see Appendix A) based on an analysis of topics chosen for freewriting from 684 Japanese university students.

Informed from the importance of allowing students to exercise autonomy in freewriting activities, this study aimed to understand students' performance and preference regarding the method of freewriting in the EFL classroom. Due to the COVID-19 pandemic, electronic devices have an increased presence in EFL classrooms. This small pilot of study of Japanese university students (N=25) in an EFL writing course will look freewriting in terms of words per minute (WPM) over the course of eight freewriting sessions (four typed; four written by hand). Additionally, participants' attitudes towards the method of freewriting will be explored. Finally, implications and suggestions for EFL teachers interested in classroom freewriting activities are provided.

LITERATURE REVIEW

Freewriting benefits

Beyond the previously-mentioned benefits of increased fluency and increased total word counts, other positive effects have been attributed to freewriting activities. Hwang (2010) and Maloney (2022) add that freewriting can boost a writer's confidence in addition to fluency. Additionally, freewriting can improve discourse competence by giving the text more coherence (Galbraith & Torrance, 2004; Ong & Zhang, 2013). Alharthi (2021) found freewriting activities could improve writing performance in terms of the number of words, grammar, and punctuation. According to Elbow (1973), regular freewriting is the most effective method for improving one's ability to write. For Elbow (1973), freewriting activities can remove writer's block by allowing the words to flow out onto the page. This may be even more the case with Japanese university students, who, according to Tanner (2016), may be risk-averse or anxious about writing. Therefore, freewriting activities can free up the students to focus on the content rather than the form. Tanner (2016) adds that freewriting can help students prepare for the essay-writing sections of the standardized language tests like the IELTS, TOEIC, and STEP (Eiken) because test takers need to generate ideas and compose a writing quickly with a focus on content over form.

Computer-supported freewriting

Studies with computer-supported freewriting have similar findings to the previously-mentioned freewriting studies. Ryczek (2015) found that with free-writing activities conducted on the computer, participants from a university in Japan experienced increased fluency and reported heightened confidence along with a more positive attitude toward writing. Along with a positive attitude, Hsu, et al. (2010) found that elementary school students in Taiwan who used a computer-supported freewriting system reported heightened confidence in writing and willingness to participate in writing activities in school.

Handwriting vs. Typing

In a comparison of handwriting and writing by hand during mock examinations, Mogey, et al. (2010) found that students who typed their exams produced more words than those who chose to handwrite their exam. Regarding course assignments, Kilickaya (2019) found that participants prefer to handwrite their work despite the ease of making quick grammar and spelling corrections on a computer. Additionally, research (Bouriga & Olive, 2021; Shibata & Omura, 2018) has shown that handwriting requires a lower cognitive load than typing, therefore suggesting that handwriting should be used when trying to retain information. Thus, when taking notes in class, writing by hand is more conducive to retaining that information.

In conclusion, previous studies on freewriting in the EFL context have reported numerous benefits, including increased word counts, fluency, improvement in grammar and punctuation, positive attitudes toward writing, and increased confidence. Studies involving typed freewriting activities have echoed these previously-mentioned benefits. Regarding comparing typing and handwriting activities, studies comparing handwriting assignments or mock examinations, preferences for one method over the other were due to one's perceived ability to type or write. Thus, those who believed they could type faster showed a preference for typing and vice versa. Additionally, studies comparing the two types of writing for notetaking or coursework reported a lower-cognitive load for those writing their work by hand because of the fewer distractions that handwriting can provide. However, at the time of writing, the researcher was unable to find studies comparing typing or computer-assisted freewriting activities with handwritten activities. Thus, this initial pilot study aims to fill this void by beginning to better understand Japanese university students' performance and attitudes in both typed and handwritten freewriting activities in the EFL classroom.

METHOD

Participants

To better understand Japanese university students' performance and attitudes towards typing and handwriting their freewriting activities, this study looks at third-and fourth-year university students (N=25) taking an advanced writing course with a freewriting component at a private university in central Japan. All the participants belonged to the university's British and American Studies department. The students did not provide their TOEIC scores, but their English level could be described in the CEFR range B2 to C1. The focus of this writing class was on thesis writing; thus, the students needed to compose theses of 2500–3000 words. As a part of the course, the participants must synthesize information and arguments from other sources on complex subjects in an academic writing style.

Data Collection

As a part of the course, the researcher dedicated the first fifteen minutes of class to freewriting activities. The students were provided ten minutes for freewriting on a topic of their choosing. The other five minutes were allocated for choosing a topic before the freewriting session and completing a short ques-tionnaire immediately afterwards. The students were informed that participating in this study had no bearing on their grade. Students were informed that their writing samples and reflections would be collected using simple quantitative and qualitative analysis. One student declined to participate.

At the beginning of the course, the researcher introduced the activity of freewriting, an activity where the goal is to write as much as possible in a time span of ten minutes. In addition, the students were informed that they should not erase, delete, revise, or use their dictionaries during the freewriting activities. The students were told to follow Elbow's (1973) only requirement for freewriting, "…never stop" (p. 1). They were not forbidden from using their dictionaries but strongly encouraged not to do so. In the first class, the students typed their

freewritings and in the second class, they wrote their freewritings by hand. In the third week, the students were divided into two groups: Group A and Group B. Group A would type their freewritings for the subsequent three freewriting sessions, then in the fourth session, they would switch to handwriting their freewritings for the following three freewriting sessions. Conversely, Group B would handwrite their first three freewriting sessions; then in the fourth session, they would switch to typing their freewriting for the next three sessions.

Participants produced at least eight freewriting samples, four typed and four written by hand. Some participants produced more than eight freewriting samples. However, some participants were absent or late to class, and thus they could complete more than eight samples. As a rule, the students were told that if they missed class, they could still complete the freewritings at home and submit it through Google Classroom. Before starting the freewriting, students were given a minute or two to get ready and select a topic. To assist with topic selection, students were provided with a copy of the list of most popular freewriting prompts from Ottoson, et al. (2019) in the Google Classroom materials section. See Appendix A for the list of freewriting prompts from Ottoson et. al. (2019). For typed freewritings, the students used their computers or tablets to compose their freewritings in the document provided to them on Google Classroom. The students who handwrote their freewriting were given paper to compose their freewriting. Upon completion of the freewriting session, the students calculated their average words per minute (WPM) by taking the total words written and dividing that number by the time allocated (10 minutes). Thus, if a participant wrote 157 words in ten minutes, the average WPM would be 15.7 words per minute. After calculating their WPM, participants completed a short post-freewriting session survey on Google Forms (see Appendix B for a copy of the survey).

Analysis

Word counts for each participant were logged after each freewriting session. The average of the total word counts were calculated. Simple quantitative

analysis was used to analyze the posttest survey administered in Week 15 of the semester. For the open-ended responses in the posttest survey, deductive coding was used to filter responses regarding the mode of freewriting preference and attitudes toward writing development and freewriting in general.

RESULTS
Words per Minute (WPM)

The average WPM for handwritten and typed freewriting sessions increased from Session 1 to Session 4. For typed freewritings, participants had an average WPM of 14.59 in Session 1 and 16.78 in Session 4 (See Figure 1). For handwritten freewriting, participants had an average WPM of 13.97 in Session 1 and 16.42 in Session 4 (See Figure 2). When comparing the average handwritten and typed freewriting WPM over all eight sessions, participants' typed WPM (17.85) was higher than the handwritten WPM (15.53).
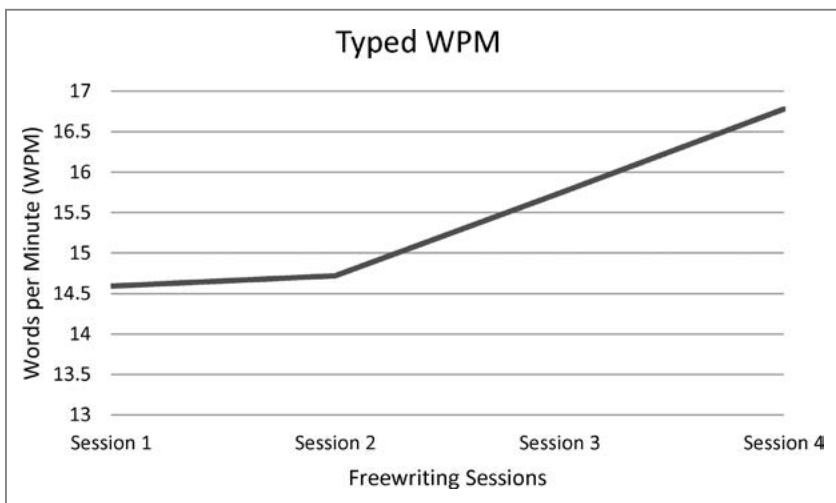

Figure 1
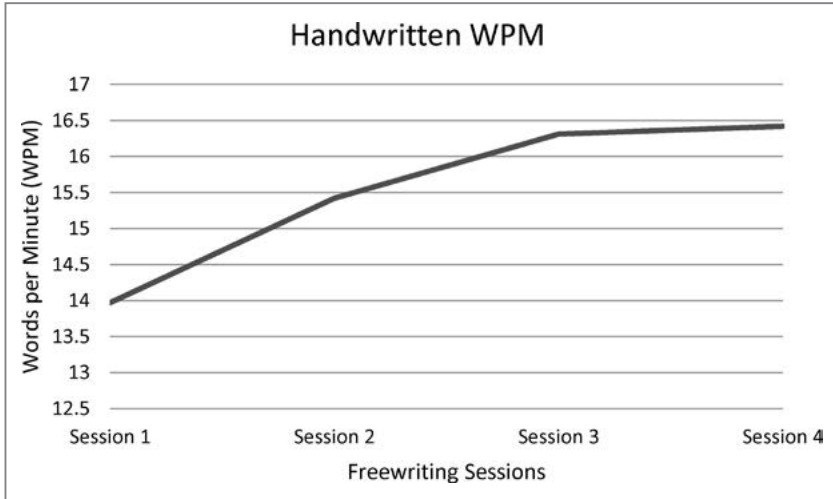*WPM averages for each typed freewrting session*

Figure 2
WPM averages for each handwritten freewriting session

Preferences for Typing or Handwriting

When asked about their preference for freewriting, participants showed a higher preference for typing their freewritings (*M*=3.71) over handwriting (*M*=2.92) their freewritings (See Table 1). When asked to explain their preferences for typing their freewritings, participants mentioned that they felt their writing was better because their writing speed was higher when they typed. Participant 14 said, "I think my writing was better when I typed the freewriting, because typing is faster than handwriting and it made my writing smooth. When I wrote the freewriting on the paper, I had some spelling problem, and it made my writing speed down." Additionally. Participant 12 said, "I feel my writing was better because I'm faster at typing than writing and I was able to delete when I was mistake."

Other participants felt their writing was better because the auto-correct function on Google Docs or Microsoft Word helped them notice their mistakes. Participant 11 said, "Because the computer corrects spelling and grammar one by

Table 1
Postest survey from participants (N=25)

Statements	*M*	*SD*
1. It became easier to write for 10 minutes after doing the activity at least 6 times.	3.58	0.88
2. I prefer to type my freewriting.	3.71	0.95
3. I prefer to write by hand my freewriting.	2.92	1.28
4. My ability to write for 10 minutes improved by the 6th writing.	3.75	0.79
5. I enjoyed writing for 10 minutes.	4.33	0.76
6. The list of freewriting topics my teacher provided was helpful for me when choosing a topic to write about for 10 minutes.	4.67	0.56
7. I often used the list of freewriting topics to help me choose a topic to write about for 10 mintues.	4.33	1.05

one, it is easy to notice my mistakes, and I feel that my writing has improved." Participant 7 said, "Since the laptop had some functions to correct mistakes and propose better ways of wording, I think my writing itself was better. Also, I was able to write more words when typing the freewriting." Additionally, some participants said that they would not have to think about how to spell the word because of the suggested spelling of the word they were trying to type. Participant 21 said, "In the case of typing, it is nice to see word guesses and mis-spellings." Additionally, Participant 10 said, "Yes. When I typed the freewriting and missed a spell, a computer corrected the mistake, so it was easy to write something with no mistake of spellings." In sum, many participants saw their writing as improved because when they typed because they utilize the suggested spelling function, notice their mistakes, and write faster.

Conversely, some participants felt that their freewriting did not improve because the auto-correct function suggested spelling functions when typing their freewriting. Participant 2 felt her writing did not improve because of this grammar and spell check function. She said, "Laptops sometimes correct gram-mers and spelling while typing, which deprives me of noticing those mistakes by myself." Participant 9 mentioned this function's distracting nature, "If there is a

grammatical error, the exact one will appear on the screen, and I'll be distracted by it. I want to write grammer correctly, so I take a time to understand what is a mistake and the correct answer with no consious when I look at it." Participant 18 felt that his writing did not improve because this function took a chance to notice his mistakes, "I do not feel my writing was better when I typed the freewriting. Because the form of typed the freewriting is Google form, and it teach grammer or spell mistake soon. It is take away to get chance to notice myself."

In addition to depriving them of the opportunity to notice mistakes, some participants who reported a preference for handwriting did so out of a perceived lack of skill when it came to typing. Participant 17 said, "I am not good at typing, so I feel it takes more time than handwriting." Other participants mentioned that it takes up time to correct their mistakes when they type. Participant 20 mentioned, "Typing is a little complicated because we are required to delete each mistake." In sum, the participants who felt their writing did not improve believed it was because of the distractions of the spelling and grammar check functions. Some felt that they needed to correct these mistakes as they went.

Attitudes Toward Freewriting

When asked about continuing freewriting, all participants indicated a positive attitude toward this prospect. This positive attitude is reflected in statement #5 in Table 1 regarding their enjoyment in freewriting activities (M=4.33). Participants also slightly agreed (M=3.58) that freewriting became easier after completing six of the freewriting sessions. However, when it came to explaining their reasons for continuing the freewriting sessions, some said they wanted to continue because it would help improve their writing skills. Participant 2 mentioned how this activity also improved her decision-making skills, too. "I think it is a good idea it absolutely improves the students' writing skills and the ability to consider quickly about the topics to write." As mentioned above with improved decision-making skills, other participants mentioned other cognitive benefits they felt freewriting brought them. Participant 6 said, "I think this has a great

potential to enhance my writing skills, and this would also stimulate my brain to process and output my knowledge. Therefore, I would love to continue doing this occasionally." While others mentioned how the writing helped them prepare for their writing that they were working on in class. For example, Participant 3 said, "I did not feel I improved my writing, but I would like to continue If I have an opportunity because It was good brainstorming in the morning."

Finally, the highest agreement in the survey was regarding the suggested topics list. Participants agreed (*M*=4.67) that the list of freewriting topics was useful. Additionally, participants stated that they often used the list to help them choose a topic to write about for 10 minutes (*M*=4.37). However, no responses in the open-ended questions about improvement in freewriting or continuing freewriting specifically mentioned the list of suggested freewriting topics.

DISCUSSION

Overall, the participants showed their enjoyment and satisfaction with the 10-minute freewriting activities at the beginning of each class. Their enjoyment and satisfaction were due to their increase in writing speed and the ease of completing the freewriting activities increased over time. In terms of WPM, participants' average WPM improved over of the four freewriting sessions for both the typed and freewriting sessions. Then, comparing handwritten samples and typed samples, students typed more WPM. Additionally, participants responded more favorably to typing during freewriting sessions. They attributed their preference to the fact that they could type more and the assistance that spell check and grammar check functions provided them. This assistance came in the form of helping them notice their mistakes or helping them spend less time thinking about the correct spelling. Tanner (2016) mentions this concern with spelling and grammar among Japanese university students and goes against Elbow's (1973) commands of freewriting: 1) Do not stop writing; 2) Write quickly, but do not rush; 3) Do not worry about spelling, grammar, or what you wrote.

Despite the slight preference in the class for typed freewriting sessions (*M*=3.71), slightly less than half of the participants preferred doing their freewriting by hand (*M*=2.91). Participants who preferred writing by hand said that the spell check and grammar check functions distracted them. While others simply felt that they could not type as fast as they could write. Some even mentioned that constant errors they noticed caused them to feel less confident in their writing.

Implications and Suggestions for Future Investigation

Based on the results of this pilot study, freewriting activities can bring benefits in terms of writing speed and perceived language development. Unfortunately, this study's method of does not lend itself to a fair comparison of handwriting and typing for freewriting activities. Further investigation is needed to investigate the use of typed and handwritten freewriting activities in the classroom. For this study, the researcher did not instruct the students to turn off the spell check or grammar check functions in Google Docs or Microsoft Word. Doing this could provide a more accurate comparison of freewriting and handwriting for freewriting activities in terms of attitudes and performance. Additionally, future studies should aim to compare writing fluency in both types of freewriting activities. Previous studies with handwritten samples have demonstrated an increase in writing fluency. However, at the time of writing, the author is unaware of any investigation into writing fluency with typed freewriting samples.

CONCLUSION

In conclusion, participants in this study demonstrated an increase in writing speed over a series of four typed freewriting and four handwritten freewriting sessions. This increase in writing speed was one of the factors for which the participants expressed enjoyment and satisfaction with 10-minute freewriting activities at the beginning of each class. When comparing the method freewriting activities, participants demonstrated a slight preference for typing during their freewriting. This preference can be attributed to higher writing speed and the

ability to notice one's mistakes during the typed freewriting sessions. While these results are promising for foreign language instructors who are interested in developing their students writing speed in terms of typing and handwriting, further more objective investigations are needed to compare the two types of freewriting more accurately. However, instructors should be aware that both preferences exist among the students in our classroom, so it can be worthwhile to offer both options. Finally, students can interpret their development in different ways. Going beyond WPM in assessing development in freewriting is necessary to help students understand the myriad of benefits that freewriting activities can offer foreign language learners.

REFERENCES

Alharthi, S. (2021). From instructed writing to free-writing: A study of EFL learners. *SAGE Open, 11*(1). https://doi.org/10.1177/21582440211007112

Bouriga, S. & Olive, T. (2021). Is typewriting more resources-demanding than handwriting in undergraduate students? *Reading and Writing: An Interdisciplinary Journal, 34*(9), 2227–2255. https://doi.org/10.1007/s11145-021-10137-6

Cohen, J. (2014). The impact of topic selection on writing fluency: Making a case for freedom. *Journal of NELTA, 18*(1–2), 31–40. https://doi.org/10.3126/nelta.v18i1-2.10328

Dickinson, P. (2014). The effect of topic-selection control on EFL writing fluency. *Journal of Niigata University of International and Information Studies, 17,* 15–25.

Elbow, P. (1973). *Writing without teachers.* Oxford University Press.

Elbow, P. (1998). *Writing without teachers* (2nd ed.). Oxford University Press.

Elbow, P. & Belanoff, P. (2000). *A community of writers: A workshop course in writing* (3rd ed.). McGraw-Hill.

Farmer, J.A. (2020).Using freewriting to increase student written fluency. *The Journal of Rikkyo University Language Center, 43,* 3–12.

Galbraith, D. & Torrance, M. (2004). Revision in the context of different drafting strategies. In L. Allal, L. Chanquoy & P. Largy (Eds.), *Revision: Cognitive and instructional processes* (pp. 63–85). Kluwer.

Hirata, E. & Hall, J. (2019). Student perceptions of topic selection and impact on EFL writing fluency. *Bulletin of Nagoya University of Foreign Studies 4,* 141–160.

Hsu, S. H., Wang, J. H., Lao, A. C. C., & Chan, T. W. (2010). Computer-supported freewriting: improving writing attitude and idea generation. In *The 18th International Conference on Computers in Education.*

Hwang, J. A. (2010). A case of study of the influence of freewriting on writing fluency and confidence.

Second Language Studies, 28(2), 97–134.

Kilickaya, F. (2018). University language students' experience of handwriting and typing assignments: Issues and challenges, *HyperCultura, 7*, 1–12.

Leblanc, C. & Fujieda, M. (2013). Investigating effects of topic control on lexical variation in Japanese university students' in-class timed-writing. *Kwansei Gakuin University Humanities Review, 17,* 241–253.

Maloney, I. (2022). The impact of creative writing on L2 writer confidence. *International Journal of TESOL Studies, 4*(4), 21–39. https://doi.org/10.46451/ijts.2022.04.03

Mogey, N., Paterson, J., Burk, J., Purcell, M. (2010). Typing compared with handwriting for essay examinations at university: letting students choose. *ALT-J, Research in Learning Technology, 18*(1), 29–47.

Ottoson, K. & Crane, P. (2016). Self-selected topics vs. teacher-selected topics: The impact on writing fluency. *Korea TESOL Journal, 12*(2), 47–64.

Ottoson, K. J., Wilkins, M., & Sponseller, A. C. (2019). A student-generated list of freewriting topics. In P. Clements, A. Krause, & P. Bennett (Eds.), *Diversity and inclusion*. JALT.

Ong, J. & Zhang, L. J. (2013). Effects of the manipulation of cognitive processes on EFL writers' text quality. *TESOL Quarterly, 47*(2), 375–398. https://doi.org/10.1002/tesq.55

Penn, S. & Lim, H. W. (2016). The effects of freewriting exercises on adult Korean students' English learning. *The Journal of Asia TEFL, 13*(4), 313–330. https://doi.org/10.18823/asiatefl. 2016.13.4.5.313

Ryczek, M. (2015). Improving English writing fluency with computer-assisted free writing exercises. 英語教育研究所紀要 *(CELE Journal)*, (23), 83–99.

Sponseller, A. & Wilkins, M. (2015). Investigating the impact of topic selection control on writing fluency. *Hiroshima Studies in Language and Language Education, 18,* 141–152.

Shibata, H. & Omura, K. (2018). Reconsideration of the effects of handwriting: Comparing cognitive load of handwriting and typing. *ITE Transactions on Media Technology and Applications*, *6*(4), 255–261.

Tanner, P. (2016). Freewriting: Don't think twice, it's all write. *The Language Teacher, 40*(3), 5–8. Retrieved from http://jalt-publications.org/sites/default/files/pdf-article/40.3-tlt-art2.pdf

APPENDIX A

Most Popular Freewriting Prompts
10 Themes in order of popularity. 5+ popular topics per theme.

Interests
My hobby * My favorite sport * My favorite place/thing * Where I like to shop * My fashion

University Life
Last Week/Weekend * My part-time job * My club * My daily routine * My house /neighborhood

Entertainment
My music * My fav. movie * My fav. celebrity * My fav. TV programme * My fav. book

Relationships
My family * My ___ (mother, father, sister…) * My friends * My pet * My boyfriend or girlfriend

International
My best trip abroad * Learning a foreign language * Studying abroad * A country I want to visit * Foreign culture

Future
My next vacation * My dream * My goals * My future job * My life after university

Travel
Travelling in Japan * My next trip * Travelling with my friends * My best trip * The value of travel

Food and Drink
My favorite food * My fav. Sweets * Japanese food * My fav. drink * My diet

Before University
My hometown * My high school * A special memory * My school club * My school trip

Other
Abstract concepts
Love * Money * Respect * Worry * Lies * History * Perfection * Dreaming * Culture Shock * Change

Note. From Ottoson, et. al., (2019) based on Japanese university students' freewriting topics. 684 students: 249 male, 435 female.

APPENDIX B

Please answer the following questions based on freewriting session today.

1. Did you type or write your freewriting? (Select one)   a) Type   b) Write
2. How many words per minute did you type or handwrite?   _____
3. What was the topic of your freewriting?   _____

4. How much do agree with the following statements? (5=strongly agree; 4=agree; 3=neither agree nor disagree; 2=disagree; 1=strongly disagree)

a. It was easy to choose a topic to write about.   5   4   3   2   1

b. It was easy to write about this topic for 10 minutes. 5   4   3   2   1

c. I often think about this topic.   5   4   3   2   1