The Benefits of Self-reflection Tools for Foreign Language Learners

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Abstract

Self-reflection, defined as "a conscious mental process relying on thinking, reasoning, and examining one's own thoughts, feelings, and ideas" (Gläser-Zikuda, 2012), has over the years been assimilated in education through tools such as diaries, logs, and journals (Bailey & Ochsner, 1983; Bailey, 1991; Gardner, 2000; Moon, 2003; Absalom & De Saint Léger, 2011; Litzler, 2014a) as a way to record, reflect, or assess learning. This mixed-method study conducted at university level from April 2020 to January 2022, explores the effects of two tools, the Self-Learning Log and the Independent Study, on over 100 English majors. Results show that participants perceived numerous benefits through self-reflection, such as improved motivation and skills. Moreover, the findings reveal (online and HyFlex) did not impact students' perceptions as much as the tools' designs did, suggesting that the self-reflection tools can be adapted to various educational settings.

Introduction

With the sudden wave of the COVID-19 pandemic, which has brought a fundamental change in how education is being delivered, more pressure has been placed on learners in higher education to regulate their own learning. As educators, we believe that it is our responsibility to provide tools to support learners who were suddenly set on a voyage as independent learners. Something that helps them to be successful learners is self-reflection, a metacognitive process through which learners are able to be "aware of their own learning processes, their weaknesses and strengths" (Ertmer and Newby, 1996, as cited in Moon, 2004, p.7). This mixed-method study focused on the learners' perceived benefits of two self-reflection tools which were employed at university level during two academic years, from 2020 to 2022, under different learning settings from complete online classes to HyFlex due to the challenging situation of the pandemic.

Literature Review

Self-reflection and Self-Regulated Learning

It has been considered that self-reflection, or simply reflection, plays a crucial role in learning in general. Moon (2004) describes reflection not only as "part of learning" but as a mental process or "secondary learning" that brings learning as a result (p.3). Reflection is activated in a learner's trial of making (new) sense of one's previous knowledge or new material which can often bring new ideas and understandings. In addition, Rogers (1969) points out that learners can develop "a sense of ownership of the material of learning" (as cited in Moon, 2004, p.9). There are various possible outcomes of reflection, such as critical thinking, personal and professional development, theory building, decision making, problem solving, empowerment, emotional development and other beneficial results (Based on Moon 1999, as cited in Moon, 2004).

Reflection is strongly involved in the theory of Self-Regulated Learning. Self-Regulated Learning, or SRL, has its roots in research of metacognition and social cognition of individual learners in the late 1970s and early 1980s (Zimmerman, 2002). Researchers found that individual differences in learning were associated with a lack of metacognitive or self-awareness of one's own limitations and incapability of dealing with such weaknesses. Such findings encouraged educators to promote learners' self-awareness, goal setting, and self-monitoring. Zimmerman (2002) defines self-regulation as "self-generated thoughts, feelings, and behaviors that are oriented to attaining goals" and describes self-regulated learners as "proactive in their efforts to learn because they are aware of their strengths and limitations and because they are guided by personally set goals and task-related strategies" (pp.65-66).

There are three cyclical phases in SRL - Forethought Phase, Performance Phase, and Self-Reflection Phase (See Figure 1, next page). The third cyclical phase, 'self-reflection', has two major components: self-judgment or self-evaluation, and self-reaction. The first component shows that learners evaluate their own process or performance in learning by using some kind of standard or their own (or others') previous performance. This evaluation is also possible by self-belief of the causes of success or failure (for instance, by simply looking at the score) that is called causal attribution (Zimmerman, 2002). One type of self-reaction, the second component of the self-reflection phase, is feelings of self-satisfaction about one's own performance and its effects. The increase of self-satisfaction will enhance learners' motivation while the decrease in

self-satisfaction will slow down the effort towards learning. The other types are 'adaptive reaction', when learners try to protect themselves by withdrawing or avoiding learning, and 'defensive reactions', which refers to learners trying to adjust ineffective learning styles for improvement. Thus, the self-reflection process in learning is essential for learners and enables them to step forward for further learning goals with increased motivation, leading them to a better performance by effective self-control.

Figure 1

Phases and Subprocesses of Self-Regulation. From Zimmerman, 2002, p.67
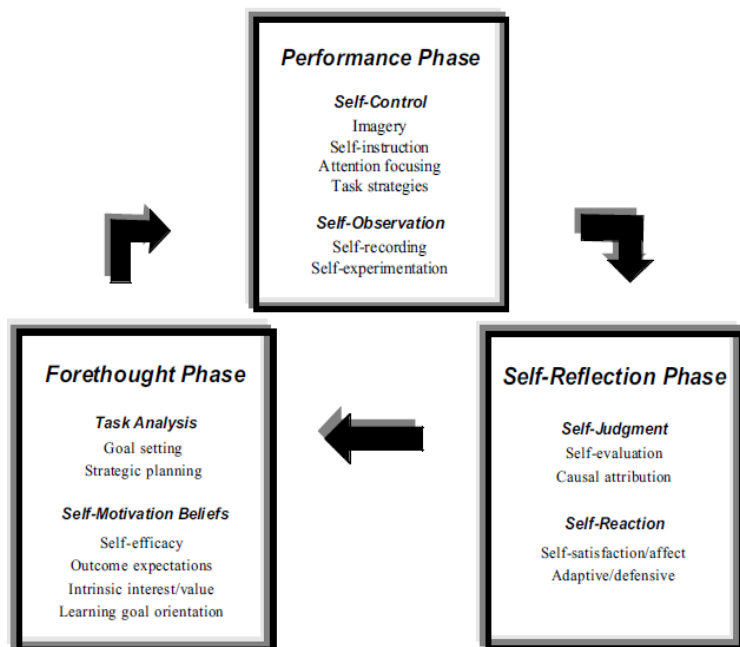
Self-reflection in Second or Foreign Language Acquisition

In recent years, studies on reflections or reflective learning have been looked at with growing interest among researchers in education. Glaser-Zikuda (2012), who defined self-reflection as "self-observation and report of one's thoughts, desires, and feelings", designates such attention as due to "the paradigm shift from teaching to learning" and the role of educational institutions is no longer for "knowledge transfer" but rather as "a well-prepared learning environment to support individual learning processes" (pp.100-101). In this sense, there has been an increased

demand for learners to develop SRL processes including self-reflection. Furthermore, a number of studies (Halbach, 2000; Platt and Brooks, 2002; Lai, Zhu and Gong, 2015; Litzer and Bakieva, 2017) have reported that self-reflection is effective in the field of Second or Foreign Language Acquisition (SLA/FLA) from various benefits such as developing learner confidence and motivation, effective performance, and enjoyment of learning. To summarize, self-reflection has been a key element in learning, especially in terms of SRL and its effectiveness has been applied in the area of SLA/FLA. Nevertheless, as Moon (2004) points out, we can never make a learner reflect; rather, it is important to create situations or environments where reflection is able to occur. Learning reflection tools such as learning journals, reflective diaries, and logs contribute to setting up such conditions for learners' "meaningful and good-quality learning" (Moon, 2004, p.9)

Self-reflection Tools

Over the years, self-reflection tools have been applied to the field of educational science and SLA/FLA (Bailey & Ochsner, 1983; Bailey, 1991; Gardner, 2000; Moon, 2003; Absalom & De Saint Léger, 2011; Litzler, 2014a) as a way to record, reflect, or assess learning. Moon (2003) explains slightly different purposes for each of the major tools of self-reflection: learning journals as "making explicit and recording the learning that occurs", reflective diaries as "demonstrating reflection on an experience", and logs as a "record of events that have happened" (p.2). Although the naming and the styles of tools that have been used for such studies are different, it is included in the bigger frame of Diary Studies (Bailey & Ochsner, 1983; Bailey 1990; Curtis and Bailey 2009). The content of learning diaries can focus either or both on reflections of in-class learning (Ruso, 2007; Christensen, Lindom, Orten, Rigbolt & Vera-Batista, 1990; Dam & Thomson, 1990) or outside of class learning (Halbach, 2000; Hyland, 2004; Lai, Zhu & Gong, 2015). The periods for such studies vary from whole semesters to a week (i.e. Hyland, 2004) and often are part of the courses in higher education (Huang, 2005; Absalom & De Saint Léger, 2011; Debreli, 2011). Studies using self-reflection tools in SLA/FLA have been actively done in various areas and countries such as Spain (Halbach, 2000; Litzler and Bakieva, 2017a and 2017b),), Hong Kong (Hyland, 2004), China (Huang 2005; Lai, Zhu & Gong, 2015), Australia (Absalom & De Saint Léger, 2011), Indonesia (Maharsi, 2018), Sweden (Ringmar, 2021), and Japan (Hirano and Zoni Upton, 2022).

Research Questions

Two different types of self-learning logs, which will be further described in the method section, were created and used for this research. In this study, two research questions were explored:

RQ1. How did participants perceive the two self-reflection tools used in this study?

RQ2. Did the learning environment affect students' perceptions of the self-reflection tools?

Method

Participants

Participants were 117 second-year university students majoring in British and American Studies and English Communication at a private foreign language university in central Japan. All participants were taking an EFL communicative and content-based English class called "CORE English 3-4" twice a week from seven EFL lecturers from the Department of British and American Studies. Participant's biographical data was not collected because it is not relevant to this research.

Tools

In this study, the following two self-reflection tools were used:

Self-Learning Log (SLL). The first self-reflection log called Self-Learning Log (SLL) was created as a Google document, during the academic year between April 2020 and January 2021 which was online due to the COVID-19 pandemic. There were three main purposes to this tool: to give students a chance to reflect on learning both inside and outside of the classroom, to give students a chance to be self-regulated or autonomous, and to encourage students to stay motivated during the online academic year. In the log, there were three categories to fill in (Appendix A): week number, reflection of in-class learning of the target class previously mentioned, and reflection of out-of-class learning or how they practiced English outside of class. In order to encourage participants' reflective process, samples were created and explained at the beginning of the semester (Appendix A). Participants updated the log every week and submitted through Google Classroom once a month at the end of every unit of the textbook. Participants did not receive any credit or letter grade for writing this log since this was an ungraded assignment. An example of participants' use of the tool is shown in Appendix B.

Independent Study (IS). The second self-reflection tool called Independent Study (IS) was created in a Google document format, during the HyFlex academic year from April 2021 till January 2022. After the online academic year of 2020, the university introduced a student-alternation system where, in turns, only half of the students of each class would join the face-to-face class while the other half did self-study at home. There were three main purposes for the second tool: to assign students some learning activity for self-study weeks, to see how self-reflection tools could be adapted to an online environment versus a HyFlex one or student-alternation environment, and to compare the perceived impacts of two different styles of reflection tools. There are three sections in the IS: the home study week number, a reflection on how they used English during home study weeks (except homework), and a learning goal for the following home study week (Appendix C). The second and third categories were followed by the questions *How did you use English during your home study week except homework*? and *do you want to do or learn during your next home study week?* Each of us authors created both good and bad samples to help participants have a clearer understanding of how to fill in their reflection (Appendix C). Unlike the first self-reflection tool, the second tool was a graded assignment with points out of 100 during the first semester. Then, from the second semester of academic year 2021, it was changed to an ungraded, optional assignment due to the change from student-alternation system to face-to-face with the exception of a few students who chose HyFlex participation. During the first semester, participants wrote reflections every other week during their home studying week. Then, reflections were submitted through Google Classroom once a month at the end of every unit of the textbook. An example of participants' use of the tool is shown in Appendix D.

Since the IS was a graded assignment during the first semester, a rubric was created and carefully explained at the beginning of the semester (Appendix E). There were four evaluation items in the rubric, each with a weighting of 25 points. Each evaluation item was described by a simple question: (1) *Are all sections complete?* (2) *Does the reflection answer the question?* (3) *Does it answer the question in detail? (4) Is the goal for the following home study week updated and realistic*? As Moon (2004b) points out, it is crucial to decide whether focus of the criteria is "the content of the reflection learning" or "the reflective process itself" (p.13). Although both are important parts of the reflection, the rubric used in this study weighs slightly more toward the latter. By making sure to answer the two questions with details on the IS ("*How did you use*

English during your home study week except homework?" and "*What do you want to do or learn during your next home study week?*") participants are able to go through a reflection process. The third question on the rubric connects the Forethought Phase of the SRL mentioned in the Literature Review section. By setting a realistic and updated goal for the following home study week, participants are encouraged to better perform in self-study.

It was an important part of learning that in both cases the reflection was written in English as Little (2007) claims that when reflections are kept in the target language, the reflections, journals, diaries, or logs will "move to the very centre of the learning process" and those will become "the story of the individual's language learning…illustrating the gradual expansion of identity that comes with developing proficiency in a second or foreign language" (p. 26). In addition, every time participants submitted the reflection, most teachers returned with comments and suggestions by using the Commenting function of Google document. Litzler and Bakieva (2017a) indicate the importance of teacher guidance for learners in starting to keep reflective tasks especially if learners are from "an education system that encourages dependence on the instructor" (p. 68) which clearly applies in the case of traditional education systems in junior or high schools in Japan. Therefore, careful explanations with samples and feedback were given throughout this study to support the participants.

Research Design

As the purpose of this study was to uncover students' perceptions of the two self-reflection tools as well as checking whether any perceived similarities or differences were influenced by their respective learning environments, we decided to adopt a Mixed Methods Research (MMR) approach with a sequential explanatory design and nested sampling (Collins, et al., 2007). MMR is commonly defined as "collecting, analyzing, and mixing quantitative and qualitative data at some stage of the research process within a single study" (Creswell, 2008, as cited in Ivankova & Creswell, 2009, p.137) or "in a series of studies that investigate the same underlying phenomenon" (Leech & Onwuegbuzie, 2008). While multi-methods research also allows for the collection and analysis of both qualitative and quantitative data, the main difference lies in whether the different data sets are being mixed or integrated together. According to Sandelowski (2003), one of the goals of MMR is, in fact, to combine two or more data sets of quantitative and qualitative nature in order to gain a thorough understanding of what is being analyzed. The mixing of the two different types of data can enrich the interpretive validity of the overall data

set. Moreover, as Dörnyei (2007) points out, MMR has the potential to reach a multitude of audiences, quantitative and qualitative researchers, hence our choice to use MMR for this study.

Data Collection

Data were collected entirely through questionnaires and interviews. Questionnaires for the SLL and for the IS respectively (Appendices F & G) were administered online as Google Forms and shared with students on the Google Classroom platform. Both questionnaires were first piloted with a small group of EFL teachers, then adjusted based on their feedback. Moreover, the IS questionnaire was further revised after analyzing the shortcomings of the SLL questionnaire. For the part of the study that took place during the online academic year, the questionnaire was administered to four classes, two classes for each of us authors. On the other hand, the questionnaire for the IS was administered to 14 classes, two for each of the seven teachers, including us, who used the tool during the HyFlex academic year. Both questionnaires were written in English and Japanese because the target audience were Japanese learners of English, and contained an explanation of the research, a consent form (those who did not wish to proceed could close the page without submitting), closed questions on a Likert Scale, and open-ended questions for clarification (Dörnyei, 2007, pp.105-107). The questions aimed to measure students' experience and opinions on the self-reflection tool being used at the time of each survey. For each questionnaire, a question was included to ask for volunteers for follow-up interviews and draw a smaller sample for the following data collection. Whilst conducting interviews during the online year was not possible due to time constraints, interviews during the HyFlex academic year were arranged shortly following the second questionnaire data collection. One-on-one interviews were conducted with students who had volunteered. In order to avoid overlap between survey and interview answers but still allow for a follow-up on interesting ideas and suggestions, we decided to choose the format of semi-structured interviews (Dörnyei, 2007; Saunders, et al., 2009). Each volunteer was emailed the interview questions (Appendix H) and an explanation of the interview format ahead of the interview day. Volunteers could then choose whether to have the interview on Zoom or in person, and whether to use English or Japanese. Furthermore, we chose interview participants who had never used a self-reflection tool before and had been taught by different teachers, in order to minimize selection bias.

Data Analysis

As mentioned above, the different data from questionnaires and interviews were administered and analyzed at different times before being mixed in the final stage of the data analysis. The sequential timing of the data collection and the integrating nature of the mixing of the data sets, defines this study as mixed methods research with explanatory design (Creswell & Plano Clark, 2007). The ordinal data from the Likert-Scale questions in the two questionnaires were analyzed first and organized in graphical summaries (bar charts) that would help provide descriptive validity to the qualitative data. Qualitative data from questionnaires were then analyzed using inductive coding (Given, 2008; Saldana, 2009). In other words, all codes derived from finding common keywords and patterns from students' written comments. Once the first phase of data analysis was concluded, the student sample for semi-structured interviews was chosen from the list of volunteers. Once all interviews had taken place, the interview recordings were manually transcribed. As the purpose of the transcriptions was exclusively to analyze the interviewees' discourse for additional codes, we did not deem it necessary to conduct a phonetic transcription. All codes and qualitative data were then shown to a fellow researcher in-person to confirm the validity of the codes we had discovered.

Finally, questionnaire and interview data were integrated and analyzed together in order to answer the research questions.

Results and Discussion

In order to better answer the research questions, results have been organized according to three focal points: 1) Were the self-reflection tools perceived as beneficial by the participants to improve as learners? 2) If so, in what ways were the two tools perceived as beneficial by the participants? 3) Would participants voluntarily continue using these tools independently in the future? Why/why not?

Were the self-reflection tools perceived as beneficial by the participants to improve as learners?

The simple answer to the first question is: yes. As shown in Figure 2 below, both the SLL and the IS were considered useful by the majority of participants.

Figure 2

Reported usefulness of self-reflection tools
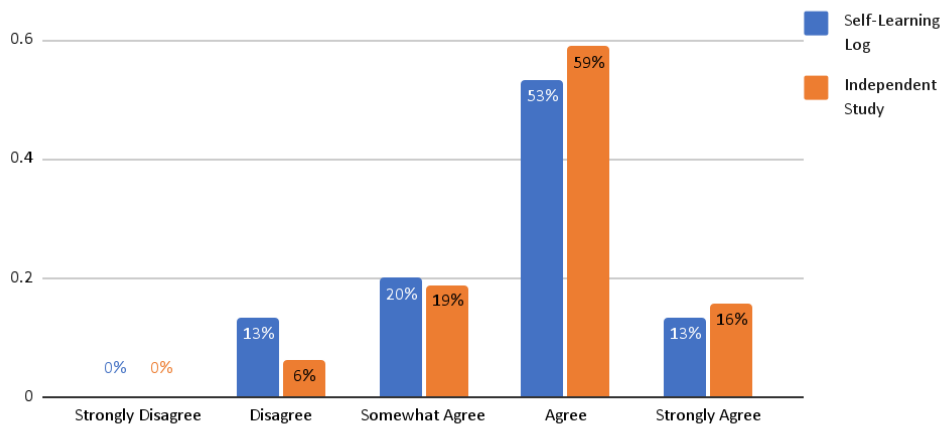
Although to various degrees, an overwhelming majority of participants, 86.7% (SLL) and 93.6% (IS) respectively, agreed that the self-reflection tool which they had used had proved to be beneficial to them.

In what ways were the two tools perceived as beneficial by the participants?

In order to answer the question above, one must first consider the initial purpose of each self-reflection tool. As previously explained, the SLL focused on students' conscious reflection on learning both inside and outside of the classroom, while the IS focused on learning after school hours and on setting goals. As a consequence, it is not surprising to see that participants had considerably different impressions on how the two tools helped their review and in-class learning reflection process (Figure 3, next page) compared to how they helped their outside-of-class learning reflection process (Figure 4, next page).

Whilst 100% of participants agreed that the SLL was beneficial for reviewing or internalizing in-class learning, the IS was instead deemed as non-beneficial by a vast majority of participants (78%). Said result appears to suggest that there is a connection between the tool design and the consequences for users. This rationale is confirmed by the results depicted in Figure 4 below.

Figure 3

Helpfulness of each self-reflection tool for reviewing/internalizing in-class learning
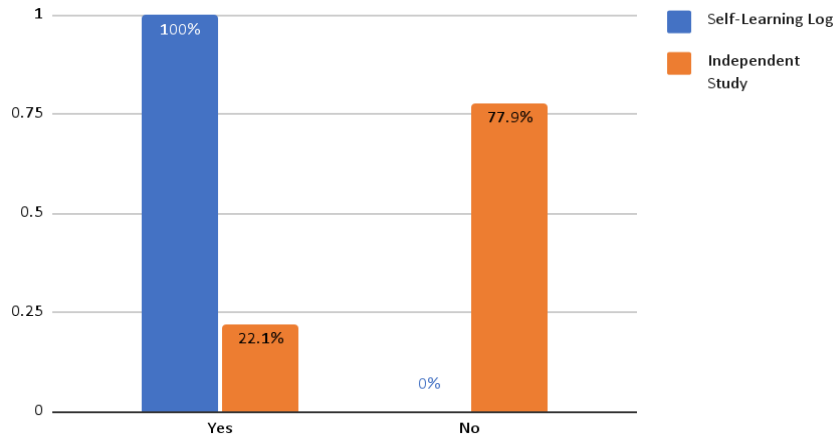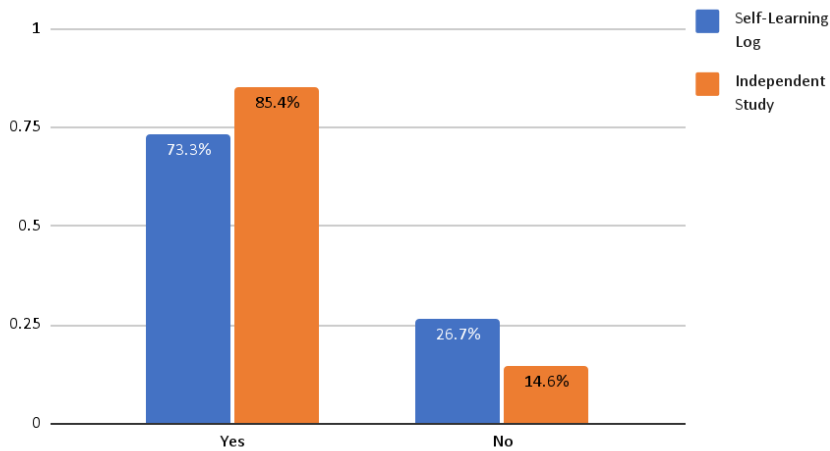

Figure 4

Helpfulness of each self-reflection tool for aiding autonomous learning outside of class

As shown above, both self-reflection tools were positively perceived by the majority of participants in terms of their usefulness for aiding autonomous learning outside of the classroom. Since both tools included a focus on outside-of-class learning, one can interpret the comparison of the results of Figures 3 and 4 and conclude that the design of each tool might be a potential determinant of the perceived outcomes.

For a more exhaustive inspection of the usefulness of the two tools, one must look at participants' qualitative data. Tables 1 and 2 below list the codes found for each tool, and the frequency (f) with which each code appeared in students' questionnaire comments. It is important to note that not all students who participated in the surveys replied to open questions, therefore the numbers shown below are lower than the number of participants.

Table 1

Self-Learning Log codes and frequency

Self-Learning Log Codes	f
Increasing/maintaining motivation	5
Reflecting on own learning style	4
Reviewing	3
Improving or gaining new skills	3

Table 2

Independent Study Codes and frequency

Independent Study Codes	f
Being an active/ independent learner	39
Trying different learning styles	28
Increasing/maintaining motivation	12
Improving or gaining new skills	10
Reflect on language use and motivation	8

As shown in the two tables 1 and 2, both tools were considered beneficial for 'increasing/ maintaining motivation' and 'improving or gaining new skills'.

Below are student comments on how each of the tools aided their motivation:

> *"It gave me the motivation to do something outside of class."* (SLL User)

> *"自分に足りないものは何か、伸ばしたい点は何かを考えることで自分の英語に対する意欲を再確認することができました"(I could confirm my motivation towards English by thinking what I lack and what I want to improve)* (IS User)

The use of the tools helped many participants maintain motivation to continue learning outside of the regular class time. The second comment illustrates how the process of reflection inherent to the tools and be useful to reaffirm and maintain learner motivation. Another common reason for the tools' aiding motivation was discovered to be teachers' comments and feedback, as shown in the example comments below:

> *"I was motivated to study because I was given feedback on my independent study"* (Anonymous)

> *"If my teacher's comments are good, they will make me happy, and I can keep trying."* (Anonymous)

The following comment, on the other hand, focuses on how the independent aspect of a self-reflection tool (choosing how to practice outside of class) can not only enhance learner motivation but could also possibly lead to skills development:

> *"I had chances to study english I am interested in, and that study enhances my motivation. So, I think I could improve."* (IS User)

Below are some of the reported comments related specifically to students' perceived skills development:

> *"When I did not know how to express, I used an electric dictionary and check the words. I think this process is useful for English learners."* (SLL User)

> *"I learned a lot of new words because I made tests for spelling and pronunciation. Moreover, I made it a habit of watching dramas and movies in English with Japanese subtitles. My English skills improved thanks to the Independent Study"* (IS User)

Once again, the comments confirm that the freedom of learning style given by the tools can aid skills development. Indeed, Absalom and De Saint Leger (2011) declare that "learners need to take ownership of their own learning in order for learning to take place" (p.190). For future research, this theory could be tested by comparing perceived improvements to students' TOEIC/TOEFL scores or to their grades in EFL classes.

It is, however, curious to see that although there are two common codes, the other codes are not only different, but have a different focus. In fact, users of the SLL mainly reported on the importance of reviewing and reflecting:

> *"When I looked back, I was able to look back on the study methods I did, and I was writing down what I had learned there, so it was also a review.*" (Anonymous)

> *"We were able to review our class, what we learn, how was my attitude in class, etc..So, it can help well."* (Anonymous)

> *"When I looked back, I was able to look back on the study methods I did, and I was writing down what I had learned there, so it was also a review."* (Anonymous)

On the other hand, users of the IS commented on the importance of being active and independent learners, trying different learning styles and reflecting on their intrinsic or extrinsic motivations.

> *"Independent Study があったおかげで、自主的に英語を勉強する機会が増えた。また、新聞を読んでみたり You Tube を見てみるなど、学習方法の幅が広がったため" (Thanks to Independent Study, there were more opportunities to study English on my own. Also, my ways of learning has expanded by trying things like reading newspapers and watching YouTube)* (Anonymous)

> *"It makes me realize that even my interests can be learning material. So I would like to keep learning English from my interests."* (Anonymous)

> *"I was able to create some new ways to learn English in addition to my own routine*" (Anonymous)

> *"自分から積極的に英語に触れようと行動するきっかけとなったから"(It has*
> *become an opportunity to take an action to use English actively from my own initiative)*
> (Anonymous)

Once again, we can deduce from the results above that the design of the tools affected the ways in which the users were impacted. Nonetheless, many of the perceived benefits of these two tools, such as increase in motivation and gaining new skills, correspond to commonly reported benefits of using self-reflection tools (Halbach, 2000; Platt and Brooks, 2002; Lai, Zhu and Gong, 2015; Litzler and Bakieva, 2017).

Would participants voluntarily continue using these tools independently in the future? Why/why not?

Surprisingly, a majority of about 60% of users of each tool agreed that they would continue to use the tool in the future (Figure 5).

Figure 5

Choice of independent continuation of the use of each self-reflection tool
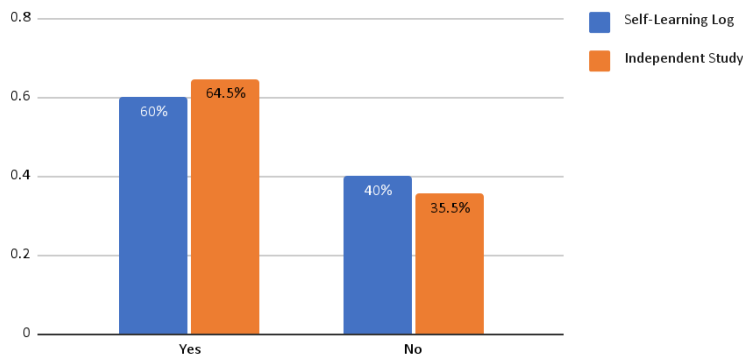
In order to acquire a more extensive understanding of participants' reasons, we analyzed students' answers from the surveys and interviews for both 'yes' and 'no' responses. Below are some reported comments on why students would not continue using the self-reflection tool:

> *"I think I would not do that spontaneously"* (SLL User)

> *"I'm too lazy to continue"* (SLL User)

> *"It is very hard and troublesome"* (SLL User)

> *"I think it is a good way to remember what I learned, but I think I cannot continue when it is not an assignment"* (SLL User)

> *"書くことが目的になりそうだし、自主的に勉強習慣がついたならシートに書く必要はないと思うため"(I'm afraid that writing the sheet itself would become the purpose. Also, I think I don't need to write if I've come to develop a study habit independently.)* (IS User)

> *"It's lazy for me to do it"* (IS User)

> *"Writing takes up a lot of time"* (IS User)

Clearly, a variety of reasons can be found in participants' comments, such as not needing the activity if one has developed autonomous learning skills, or the time-consuming aspect of the activity. However, the most commonly reported reasons for not continuing either tool were laziness, and not feeling motivated to continue if it is no longer an assignment. The last reason is particularly interesting to find since the activity was given as an assignment for three out of four semesters, yet was only graded for one semester out of four. By taking that and students' comments about teacher feedback into consideration, we could therefore consider that it is not the weighting of the activity on their overall grade which drove most students to continue, but rather the encouragement which they received from teachers which helped maintain motivation and helped find value in continuing. A study by Hoge, Smith, and Hanson (1990, as cited by Park & Lee, 1996) explained that feedback from teachers is one important factor to improve student's self-efficacy. In the context of self-reflection, a study by Absalom and De-Saint Léger (2011) considers that through the use of logs and journals, "the teacher–learner relationship is reconfigured so that the task becomes a modified dialogue between the student and the teacher in a way that other tasks are not" (p.191). The perceived value of teachers' feedback in self-reflection tools is something that necessitates further investigation, especially when such interaction is taking place in the context of remote learning. This will be further explored by discussion of interviewees' comments.

On the other hand, commonly reported reasons for continuing to use the self-reflection tool were as follows:

"I feel log with English is very useful way to improve my English, so I try continue to this custom" (SLL User)

"自分が学んだことが目に見えて自信になると思うので時間が作れれば続けたいです" (Because what I learned becomes apparent, I believe I become more confident. Therefore, I'd like to continue if I can make time) (SLL User)

"Because I could remember what I did last week when I look backed my reflection. And writing will also be remembered" (SLL User)

"It makes me to continue studying English"(SLL User)

"It's good to keep a record, and I think I can grow by seeing it" (IS User)

"I want to get into the habit of learning outside of the classroom" (IS User)

"日々の日記というか成長記みたいに使えるのでいいと思う" (I think it's a good idea because it could be used as diary or the log of self-improvement) (IS User)

Interestingly, there is little difference in comments by users of each of the two tools. Both SLL users and IS users commented that it would be beneficial to continue using it as a record for review and self-growth. Likewise, users from both groups commented on continuing using the tools as a way to keep motivation to learn English.

Finally, it is important to hear from users who actually continued to use reflection tools when they ceased to be an assignment. When asking interview participants the reasons why they chose to continue using the tool, these varied from using it as a way to stay active during remote classes, a study method, a way to practice another foreign language for the first time, a way to recover/maintain motivation, and an opportunity. One interview participant discussed the connection between the teacher feedback on self-reflection tools and the experience of remote learning:

P: sometimes I feel happy

I: When did you feel happy?

P: Ah~ because the first semester was remote so..I.. sometimes I feel "it is OK…?.. can I submit correctly?" but if the teacher have the comments or suggestions, I can feel happy or.. "My job is OK"

I: Relieved?

P: Relieved? Yes.

I: Especially because some of the classes were remote.

From the interview excerpt we can see that the participant felt uncertainty in their experience of remote learning. As a result, the self-reflection tool was an opportunity for them to have a student-teacher dialogue and find confirmation or reassurance in their learning. Indeed, teacher feedback and student-teacher interaction have been positively connected with students' perceived improvements in self-reflection (Hoge, Smith, and Hanson (1990, as cited by Park & Lee, 1996) and online education (Bordelon, 2011; Eom & Ashill, 2016). Finally, another interview participant concluded that "With assignments, I feel like I've been forced to study but it [the IS] gives me an opportunity to study English. So, that's why I'd like to continue" (Interview Participant), highlighting the role of self-reflection tools as an opportunity, not a task.

Conclusion and Future Study

The self-reflection tools proved to be a valuable way for participants to self-reflect. The majority of participants reported improvements through self-reflection in terms of motivation, reflection on learning styles, content review, second language skills improvement, and autonomous learning skills. Unexpectedly, more than half of participants reported wanting to continue using the tools independently. The study is of relevance to educators in all environments as it shows that the learning environment, such as online or HyFlex, was not a determinant factor of whether or how learners benefit from using self-reflection tools.

This study also has some limitations as it used a sample of participants from the same department and therefore included a certain degree of selection bias. However, since the two self-reflection tools were designed to suit different learning environments, the results are in theory applicable to other contexts. Limitations in time to follow-up also narrowed the amount of

data, which could have provided information on whether and how participants used the tools after the end of the course.

Future research may explore the use of these self-reflection tools in different contexts, such as university students not majoring in foreign languages, to confirm whether the outcomes would not differ if the design of the tools remains unchanged. Further research should also be conducted to explore the impact of teacher feedback on the benefits of self-reflection. It would be effective to have control and comparison groups to compare their perceptions on improvements related to teacher-student interaction in self-reflections. Finally, this study will be replicated with a longer research term to confirm the independent use of the tools.

BIO DATA

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References

Absalom, M., & De Saint Léger, D. (2011). Reflecting on reflection. *Arts and Humanities in Higher Education*, *10*(2), 189–211. doi:10.1177/1474022210389141

Bailey, K. M. (1983). Competitiveness and anxiety in adult second language learning: Looking at and through the diary studies. In H.W. Seliger & M. H. Long (Eds.), *Classroom oriented research in second language acquisition* (pp. 67-102). Newbury House.

Bailey, K. M. (1990). The use of diary studies in teacher education programs. In J.C. Richards & D. Nunan (Eds.), *Second language teacher education* (pp. 215-226). Cambridge University Press.

Bailey, K. M. (1991). Diary studies of classroom language learning: The doubting game and the believing game. In E. Sadtono (Ed.), *Language acquisition and the second/foreign language classroom. Anthology Series 28* (pp.60-102)*.* SEAMEO Regional Language Centre. http://eric. ed.gov/?id=ED367161

Bailey, K. M., & Ochsner, R. (1983). A methodological review of the diary studies: Windmill tilting or social science? In K. M. Bailey, M. H. Long, & S. Peck (Eds.), *Second language acquisition studies* (pp. 188-198). Heinle & Heinle/Newbury House.

Bordelon, K. L. (2011). *Perceptions of Achievement and Satisfaction as Related to Interactions in Online Courses* [Doctoral dissertation, Northcentral University, California]. https://www.proquest.com/openview/f3ca2a5339ee3074363fdb6530601d75/1?pq-origsite=gscholar&cbl=18750&diss=y.

Christensen, A. L., Lindum, A., Orten, P., Rigbolt, U., & Vera-Batista, J. L. (1990). The use of diaries and case studies. In T. Trebbi (Ed.), *Third Nordic workshop on developing autonomous learning in the FL classroom* (pp. 103-107). Institutt for praktisk pedagogikk.

Collins, K. M. T., Onwuegbuzie, A. J., & Jiao, Q. G. (2007). A mixed methods investigation of mixed methods sampling designs in social and health science research. *Journal of Mixed Methods Research*, *1*(3), 267-294.

Creswell, J. W., Plano Clark, V. L., Guttman, M., & Hanson, W. (2003). Advanced mixed methods research designs. In A. Tashakkori & C. Teddlie (Eds.), *Handbook of mixed methods in social & behavioral research* (pp. 209-240). Sage.

Curtis, A., & Bailey, K. M. (2009). Diary studies. *OnCue Journal*, *3*(1), 67-85. https://jaltcue.org/files/OnCUE/OCJ3-1articles/OCJ3-1-Curtis-Bailey-pp67-85.pdf

Dam, L. & Thomsen, H. (1990). Learning how to learn: Awareness in the classroom and in workshops. In T. Trebbi (Ed.), *Third Nordic workshop on developing autonomous learning in the FL classroom* (pp. 33-52). Institutt for praktisk pedagogikk.

Debreli, E. (2011). Use of diaries to investigate and track pre-service teachers' beliefs about teaching and learning English as a foreign language throughout a pre-service training Program. *Procedia: Social and Behavioral Sciences*, *15*, 60-65. doi: 10.1016/j.sbspro.2011.03.051.

Dörnyei, Z. (2007). *Research methods in applied linguistics*. Oxford University Press.

Eom, S. B., & Ashill, N. (2016). The Determinants of Students' Perceived Learning Outcomes and Satisfaction in University Online Education: An Update. *Decision Sciences Journal of Innovative Education*, *14*(2), 185-215. doi.org/10.1111/dsji.12097.

Gardner, D. (2000). Self-assessment for autonomous language learners. *Links & Letters*, *7*, 49-60.

Given, L. M. (2008). *The Sage Encyclopedia of Qualitative Research Methods*. Sage.

Gläser-Zikuda (2012). Self-Reflecting Methods of Learning Research. In N. H., Seel (Ed). *Encyclopedia of the Sciences of Learning* (pp.99-103). Springer. doi:10.1007/978-1-4419-1428-6_821

Halbach, A. (2000). Finding out about students' learning strategies by looking at their diaries: A case study, *System*, *28*, 85-96. doi.org/10.1016/S0346-251X(99)00062-7

Hirano, M.,& Zoni Upton, J. (2022). The self-learning log: A tool for aiding learners's autonomy, confidence, and motivation. *Bulletin of Nagoya University of Foreign Studies*, *10*, 277-299.

Huang, J. (2005). A diary study of difficulties and constraints in EFL learning. *System*, *33*, 609-621. doi: 10.1016/j.system.2005.04.001.

Hyland, F. (2004). Learning autonomously: Contextualising out-of-class English language learning. *Language Awareness*, *13*(3), 180-202.

Ivankova, N. V., & Creswell, J. W. (2009). Mixed Methods. In J. Heigham & R. A. Crocker (Eds.). *Qualitative research in applied linguistics: A practical introduction* (pp. 135-161). Palgrave.

Lai, Zhu and Gong. (2015). Understanding the quality of out-of-class English learning. *TESOL*, *49*(2). doi.org/10.1002/tesq.171

Leech, N., Onwuegbuzie, A. (2008). A typology of mixed methods research designs. *Quality and Quantity*, *43(*2), 265-275.

Little, D. (2007). Language learner autonomy: Some fundamental considerations revisited. *Innovation in Language Learning and Teaching*, *1*(1), 14-29.

Litzler, M.F. (2014a). Independent Study Logs: Guiding and Encouraging Students in the Process of Language Learning, *Journal of Language Teaching and Research*, 5 (5), 994-998. doi:10.4304/jltr.5.5.994-998.

Litzler, M.F. (2014b). Student Satisfaction with Using Independent Study Logs as Part of English Classes", *Theory and Practice in Language Studies*, 4 (8), 1527-1535. doi: 10.4304/tpls.1527-1535

Litzer, M. F., & Bakieva, M. (2017a). Learning logs in foreign language study: student views on their usefulness for learner autonomy. *Didáctica*, *29*, 65-80, doi: doi.org/10.5209/DIDA.57130.

Litzer, M. F. ,& Bakieva, M. (2017b). Students' out-of-class activities for practicing English as a foreign language: A log study. *International Journal of Scientific Study*, *5*(8), 10-19. .doi:10.17354/ijssNov/2017/2

Maharsi, I. (2018). Developing EFL students' learning reflection and self-regulated learning through Google Classroom. *ICIEI 2018: Proceedings of the 2018 The 3rd International Conference on Information and Education Innovations*. 62-66. doi:10.1145/3234825.3234841

Moon, J. (1999a). *Reflection in learning and professional development*. Kogan Page.

Moon, J. (1999b). *Learning journals: A handbook for academics, students and professional development.* Kogan Page.

Moon, J. (2003). *Learning Journals and Logs, Reflective Diaries*. Good Practice in Teaching and Learning, University College Dublin.

Moon, J. (2004a). *A Handbook of Reflective and Experiential Learning Theory and Practice*. London Routledge Falmer.

Moon, J. (2004b). Reflection and employability. In M.Yorke (Ed.), *Learning and Employability* (1-16). Learning and Teaching Support Network (LTSN).

Park, O-C., and Lee, J. (1996). Adaptive instructional systems. In D. H. Jonassen (Ed.), *Handbook of research for educational communications and technology* (pp. 138–153). Macmillan.

Pickard, N. (1996). Out-of-class language learning strategies. *ELT Journal*, *50*(2), 150-159.

Platt, E., and Brooks, F. B. (2002). Task engagement: A turning point in foreign language development. *Language Learning*, *52*(2), 365-400. doi:10.1111/0023-8333.00187

Ringmar, G. C. (2021). *Designing for students' self-reflection in online learning settings: A mixed method study* [Published dissertation, KTH Royal Institute of Technology,School of Electrical Engineering and Computer Science (EECS)].

Ruso, N. (2007). The influence of task based learning on EFL classrooms. *Asian EFL Journal, 18*, 1-23. http://asian-efl-journal.com/pta_February_2007_nr.php

Saldana, J. (2009). The Coding Manual for Qualitative Researchers. Sage.

Saunders, M., Lewis, P., and Thornhill, A. (2009). *Research Methods for Business Students* (5th ed). Pearson Education.

Sundqvist, P. (2011) A possible path to progress: Out-of-school English language learners in Sweden. In P, Benson & H. Reinders (Eds.), *Beyond the language classroom* (pp. 106-118). Palgrave Macmillan.

Zimmerman, B. J. (1989). A social cognitive view of self-regulated academic learning. *Journal of Educational Psychology*, *81*, 329-339.

Zimmerman, B. J. (2000). Attainment of self-regulation: A social cognitive perspective. In M. Boekaerts, P .R. Pintrich, & M. Zeidner (Eds.), *Handbook of self-regulation* (pp. 13-39). Academic Press.

Zimmerman, B. J. (2002). Becoming a self-regulated learner: An overview. *THEORY INTO PRACTICE*, *41*(2), 64-70. doi: 10.1207/s15430421tip4102_2

APPENDIX A

SLL Sample

Name:_____ Student#_____

🏃🏃**Please keep a record of your learning inside and outside of class time.**

Please take a look at the example reflection below.

Week	In-class learning	Out-of-class learning
	Reflect on what you learned during today/this week's class.	Reflect on what you did outside of class to practice English.
e.g. Week 1	Today we learned about nurture VS nature. I didn't know that in Japan people connect blood types to personality. I couldn't participate well in group conversation, but I enjoyed pair conversation. Next time I want to participate more actively in a group, maybe ask more questions.	On Monday, I had a zoom chat in English with my classmate. Then, on Thursday, I watched a Hollywood movie in English with Japanese subtitles. Next time, I want to try watching it again without subtitles.
Week 2	Today we discussed how to cope with work stress through reading. I could relate myself to it because I used to have so much stress at a workplace where I worked part time. I could share my experience with my classmate so I felt happy. However, I couldn't concentrate on the class so much. I felt tired. I should have enough sleep everyday.	On Monday,I watched YouTube about how to exercise at home. I really enjoyed learning something new in English but sometimes it was so difficult for me to understand what the speaker was saying. New Expressions: -stay fit and active -burn calories Next time I want to learn how to cook in English.

APPENDIX B

SLL Student Sample

Week	In-class learning	Out-of-class learning	
	Reflect on what you learned during today/this week's class.	Reflect on what you did outside of class to practice English this week.	
1	We thought about 'what is happiness'. I thought 8 habits happy people have is worth remembering. Among them, I like the choice of 'forgive'. To forgive ourselves is really difficult, but if we can forgive ourselves, it leads to forgive someone.	I read an interesting article on the internet. It talked about the immigration. According to the article, there are many obstacles to accept many immigrations. I thought the problem of immigration doesn't directly affect me, but I thought we should try to know that.	
2	Today, we practiced the recording. That was really hard for me, because it is difficult to understand what is the happiness. We talked about 3 things which we felt happy, that was so peaceful time. I was glad to listen to small happiness.	I listen to the foreign songs. The song was 'closer' and 'Something Just Like This'. I knew the chainsmokers last year, because 'closer' was covered by Mackenyu Arata. I think their song is very cool and I like their song's lyrics. I would like to listen to other songs.	
3	Today, we learn about #HASHTAG MOVEMENTS. I don't use Instagram, so I didn't know much. But I thought I should know and think about these problems. If many young people take action, our future might be better than this situation. I would like to keep researching these movements.	I studied for the TOFEL. I had a lot of part time job in this week, so I couldn't study a lot. I should use more time to practice listening and reading. I'll try to use my time more effectively!	

APPENDIX C

IS Sample

Home Study Week	Reflection	Learning Goal for Next Home Study Week
When are you writing your reflection?	How did you use English during your home study week (**except** homework)?	What do you want to do/learn during your next home study week? Why?
April 23rd-April 27th (Good Sample 2)	This week, I watched YouTube videos about exercising at home and cooking. I really enjoyed learning something new in English but sometimes it was so difficult for me to understand what the speaker was saying. I learned some new expressions, like: -stay fit and active -burn calories Next time I want to learn how to cook in English.	Next week I want to have a conversation in English with my Malaysian friend who is studying abroad at NUFS. I also want to practice singing "Perfect" by Ed Sheeran. I love karaoke and I want to be able to sing English songs well.
May 12th (Bad Sample 1)	This week, I did my homework for Core English and Academic Writing. It was difficult.	Next week, I want to do my best!
(Bad Sample 2)	- I listened to Taylor Swift songs - I watched an American movie on Netflix. - I practiced for presentation day.	Next week, I want to watch another English movie.

APPENDIX D

IS Student Sample

Home Study Week	Reflection	Learning Goal for Next Home Study Week
When are you writing your reflection? (week or date)	How did you use English during your home study week (**except** homework)?	What do you want to do/learn during your next home study week? Why?
Week 1 (April 28-May 4)	This week, I listened to One Direction songs and sang that song in English. On Friday, I also watched Itzy's music video. Their song is Korean, so I watched it with English subtitles. I memorized some words. clue→手がかり、糸口 inevitable→避けられない、不可避の I want to catch the words of a song that I have never listened to before. In addition, I want to sing the songs in English at the karaoke someday.	Next week, I want to listen to the Western music at least once a day. After that, I want to check the lyrics and meaning, because I want to know how much I can understand. I enjoy learning English!
Week 2 (May 12-May 18)	On Saturday, I watched 'MAMMA MIA!' in English at the library. This is the first time for me to watch it in only English. During watching the movie, I set my dictionary close to me and looked up many words that I didn't	Next week, I want to make a notebook that I can write down the lyrics in English, the meaning in Japanese and new vocabulary. I also want to write some good words or sentences
	know the meaning as soon as possible. It was hard to catch and understand for me, so I want Mina to recommend the movie!	in English, actually I do it in Japanese now. I think this notebook will be my motivation. I'll do my best!

APPENDIX E

IS Rubric

Independent Study Rubric

	25	20	15	10	5	0
Are all sections complete?	All three were completed.		Only two sections were completed.		Only one section was completed.	Unsubmitted
Does the reflection answer the question?	Yes.		So so.		Not really. (e.g. only talking about coursework)	/
Does it answer the question in detail?	There is plenty of detail.		There is little detail.		There is no detail (e.g. bullet points)	
Is the goal for the following home study week updated and realistic?	Yes, it's updated and realistic.		So so. It's either updated or realistic. (e.g. I want to learn how to speak fluently; watch another Harry Potter movie)		No, it's neither updated nor realistic.	/

APPENDIX F

SLL Questionnaire

Throughout the academic year, you have kept writing "Self-Learning Log". I'd like to know how it has been helpful for your learning and how it can be improved for future use. Your answers will NOT affect your grades so please let me know your honest feelings and ideas about the log. The results of this questionnaire might be introduced in a journal or a presentation for educational purposes; however, it is only limited to the anonymous answers of this questionnaire. Your actual self-learning logs will NOT be used in any type of research unless you give me permissions.

After you read the explanation above and consent to answer the questions, please go to the next page. If after you read the explanation above, you feel uncomfortable with answering the questions, you do NOT have to answer the questions at all.

Thank you in advance for your time and sharing your ideas and experiences with me.

Part 1: Please tell me about how you see yourself as a learner.

1. Do you think you are an autonomous learner? (NOTE: Autonomous learner means a learner who takes control of one's own learning both inside and outside of the classroom)

(Strongly agree/Agree/Somewhat Agree/Disagree/Strongly Disagree)

Why do you think so?

_____

2. Compared to yourself in April, do you think you have improved as a learner? (Yes/No)

Why？

_____

3. Do you think writing a Self-Learning Log helped you be a good learner?

(Strongly agree/Agree/Somewhat Agree/Disagree/Strongly Disagree)

Why?

_____

4. In the future, what kind of learner would you like to be? Please describe your ideal learner.

_____

5. To be the learner you described above, what is one thing you can do from today?

Part 2: Please tell me how you kept writing the Self-Learning Log and how you felt about it.

1.   How often did you write your log?

   (Every after the class/Once a week/Once in two weeks/Just before the submission deadline)

2.   How long did it take you to write your log (for one week)?

   (Within 15 minutes/Within 30 minutes/Within an hour/More than an hour)

3.   Do you think writing the log helped you remember what you learned in the class?

   (Yes/No)

4.   Do you think writing the log helped you use/practice English outside of the classroom?

   (Yes/No)

5.   Would you keep writing this kind of log in the future?

   (Yes/No)

   Why/Why not?

Part 3: Please let me know your ideas for improvements of the Self-Learning Log in the future.

1.   Which type of the log do you prefer?

   (Google Document/Word/Paper)

2.   How often would you like to submit?

   (Every week/Every after the Unit/Twice in a semester/Three times in a semester/I do not wish to submit. I want to keep it personal)

3.   Do you prefer to receive some comments from the teacher? (Yes/No)

4.   If you have any suggestions or comments about the log, please feel free to write below.

---

5.   Is it OK with you to use some part of your log as an anonymous example in my research paper/presentation in the future? If it's OK with you, can you write down your student number below?

6.   If you are willing to answer a short online interview about your self-learning experiences, can you write down your email address below?

APPENDIX G

IS Questionnaire

Throughout the semester, you have been using the Independent Study sheet as part of your CE3 assignments. The purpose of this survey is to find out how helpful it has been for your learning and how it can be improved for future use. The results of this survey might be used for academic research purposes, but your answer will be anonymous so please write your honest feelings and ideas. IF you feel uncomfortable with completing the questionnaire after reading this explanation, you can close this page anytime. Thank you in advance for your time and for sharing your ideas and experiences with us.

Core English 3 の課題の一部として、今学期中 Independent Study sheet を使用してきました。この調査の目的は、この Independent Study sheet があなたの学びにどのように助けとなったか、また、将来的にどのように改善することができるかを調べることです。本調査の結果は学術的研究の目的で使用される可能性がありますが、匿名の回答となるので、正直な気持ちや考えを書いてください。もしも、この説明を読んだ後、本調査に回答するのを不快に感じた場合、回答する必要はありません。また、いつでも回答をやめてページを閉じても構いません。あなたの貴重な時間と、考え、経験を私たちと分かち合ってくれることに、感謝します。

1 Do you think you are an autonomous learner? （あなたは自分が autonomous learner だと思いますか？）

(Strongly Agree, Agree, Somewhat Agree, Disagree, Strongly Disagree)

2. Why do you think so? (なぜそう思いますか？)

_____

3. Do you think doing the Independent Study sheet helped you improve as a learner compared to April? （４月と比べて、Independent Study Sheet をやることで自分が learner として成長したと思いますか？）

(Strongly Agree, Agree, Somewhat Agree, Disagree, Strongly Disagree)

4. Why? (なぜですか？）

_____

5. What kind of learner would you like to be?（あなたはどのような learner になりたいですか？）

_____

6. To be the learner you described above, what is something you can do from today? （上記の質問に答えた learner になるために、あなたが今日からできることは何だと思いますか？）

_____

7. How long did it take you to write your Independent Study sheet each time?　(Independent Study sheet を書くのに毎回どのくらい時間がかかりましたか？）

(Within 15 minutes, within 30 minutes, within an hour, more than an hour)

8. How often would you like to write it? (どのくらいの頻度で書きたいですか？）

(Once a week, once every other week, once per unit, once a semester, I do not wish to submit. I want to keep it to myself)

9. Do you think writing the Independent Study sheet helped you internalize what you learned in the class? （Independent Study sheet を書くことは授業内容を身に着けることに役立ちましたか？）

(Yes/No)

10. If you answered "yes" to the previous question, please explain. （9 の質問に Yes と答えた場合、なぜそう思ったか教えてください）

_____

11. Do you think writing the Independent Study sheet helped you use/practice English outside of the classroom more than usual? (あなたは Independent Study sheet を書くことが、通常よりも、教室外で英語を使用したり練習したりすることにつながったと思いますか？）

(Yes/No)

12. Why do you think so? (なぜそう思いますか？）

_____

13. Do you prefer to receive some comments from the teacher? (あなたは教員から Independent Study sheet にコメントがほしいですか？）

(Yes/No)

14. Why? （なぜですか？）

_____

15. Would you keep writing this kind of Independent Study sheet in the future? (あなたはこのようなタイプの Independent Study sheet を書くことを将来も続けたいですか？）

(Yes/No)

16. Why/Why not? （なぜ続けたい／続けたくないですか？）

_____

18. If you have any suggestions or comments on how to improve the Independent Study sheet, please feel free to write below. (Independent Study sheet の改善方法について助言やコメントがあれば教えてください）

19. Some Independent Study sheet student samples might be used anonymously (name and student number will be removed) for research. If you DON'T WANT your Independent Study sheet being used as a sample, please write your student number here. (Independent Study sheet の一部をサンプルとして、匿名（個人の名前及び学生番号等を削除する）にした上で研究に使用する場合があります。もしも、それを望まない場合、ここに、あなたの学生番号を書いてください。）

20. If you are willing to join a short online interview about your experience with the Independent Study sheet in the future, please write your student number here. Thank you! (将来的に、この Independent Study sheet におけるあなたの経験について、短いオンラインインタビューに協力してもよい場合、あなたの学生番号をここに書いてください。ご協力に感謝します。）

APPENDIX H

Interview Questions

Important Information:
*Interviews will have a 15-minute time limit.

*Interviews conducted in person will be audio recorded.

*Interviews conducted on Zoom will be video recorded. The video is <u>only for the researchers</u>, it will not be shown to the public. If you don't want to be video recorded, please let us know before the interview day.

*Interviews will be conducted in English.

Interview Questions:

1. Have you used self-reflection tools before in other classes? Explain.
2. Did you find the Independent Study useful? If yes, in what ways?
3. Are you continuing the Independent Study in semester 2? Why/why not?
4. Do you have any feedback for us?

If you have any questions, please email us.

Thank you for participating in this research study.

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