The Relationship between Online Assignments and Study Hours:
How Can We Increase Net Study Hours?

Akiko Hagiwara,[*1] Kaoru Kobayashi,[*2] Mitsuko Imai[*3]

Introduction

Planned blended learning that encourages students to study harder outside of the classroom can be an effective way in leading them to become autonomous learners. Japanese students' lack of study hours has been constantly raised as one of the factors of unsuccessful language learning, yet there are not many reports to address this issue. The purpose of this study is to investigate the relationship between online assignments and study hours. We integrated online assignments with in-class materials on the premise that online assignments promote longer study hours and encourage learners' autonomy.

Background

Japan is experiencing drastic changes in society such as globalization and a declining birth rate with a growing proportion of elderly people. In this rapidly changing world, universities are required to ensure quality in their education (MEXT, 2012a). This is especially true for science students since the government expects students in science fields to participate actively in a globalized world. Our students major in life sciences, and it is our responsibility to offer a program where they can acquire the English language.

According to The University of Tokyo, Center for Research on University Management and Policy (CRUMP), 2007, 62.3% of university students claimed that foreign language education in university is ineffective. It is evident that university English programs need to be improved to satisfy students and to train them in effective ways. Current research shows that E-learning that is integrated into the curriculum receives positive feedback from students and promotes learners' autonomy. Lo, Johnson and Tenorio (2011) state that a series of online assignments can be important for increasing students' favorable attitudes toward online assignments. Nielsen (2013) claims, "The e-learning tools also favoured better study skills: By using the portfolio for product-oriented writing tasks and giving them the opportunity to read texts written by their peers, students came to work more independently outside the classroom, thereby improving their writing and reading skills." Isiguzel (2014) compared student performance in German classes with blended learning environments to the traditional learning environment, and concluded that the experimental group of students in blended learning environments had more success and higher motivation than the control group in the traditional learning environment.

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*1 生命科学部言語科学研究室
*2 生命科学部
*3 玉川大学 ELF センター

Blended learning can be effective in a Japanese university context; however, we shouldn't ignore the particular characteristics of Japanese university students. Different sources claim that Japanese university students are not studying enough. The comparison of "Average Study Hours across Countries" between European countries and Japan shows that Japanese students study the least outside of classroom (Figure 1). The comparison of total study hours between the United States and Japan reveals that 58.4% of students in the US study more than 11 hours per week and 57.1% in Japan study 1 to 5 hours in a week (Figure 2). This data suggests that English programs should encourage students to study more outside of classroom.

The aim of our study is to create a blended learning environment so that students spend more time on studying English. In this article, we will report on how we have been integrating online assignments to increase students' study hours. As mentioned above, Japanese university students don't spend enough time in studying outside of the classroom. In order to improve this situation, we've started giving scheduled assignments to encourage them acquire good study habits. Steady study habits then encourage students to do more self-directed learning, and ultimately that leads to learner autonomy. This paper reports on our study in progress.

The research questions are as follows:

1. How many hours do our students study?

2. Under which conditions can we help our students study more?

3. Can an online program help the students form good study habits by setting deadlines for each assignment within the program?
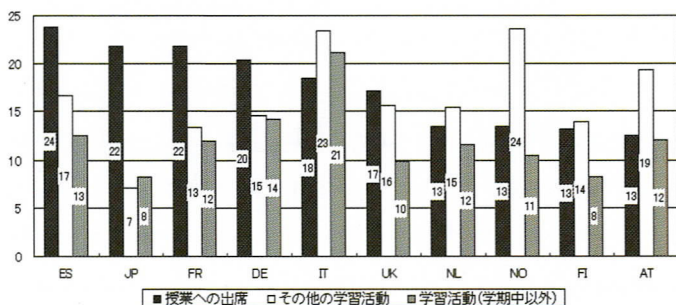

Figure 1. Average study hours for college students among different nations (Japan Institute for Labour Policy and Training, 2001)
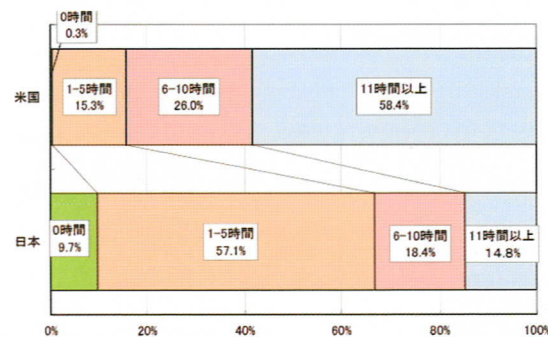

Figure 2. Comparison of study hours of college students between US and Japan (MEXT, 2012b)

Our Study

In order to verify the effectiveness of online materials in English language teaching, we implemented three different approaches during the period between 2012 and 2014. The main sources of data are responses from the students regarding their study hours. The following part describes the details of our program with about 500 students, around 230 to 260 students in each of two levels of courses, freshman English course and sophomore English course.

Teaching Materials and Settings

Three sets of textbooks, each with an online program, were used in two levels of classes from

2012 through 2014 (Table 1). *Azar Interactive* is an independent online program on English grammar which can be used for students' self-study. The program includes audiovisual explanations and exercises. The instructors can check the students' progress, but the deadlines cannot be set for each task. *Academic Connections* is courseware for improving reading, writing, listening and speaking skills. It consists of a textbook to be used in class and an online program that includes previewing and reviewing tasks. The deadline for each online-task can be set by the instructors. The instructors can monitor the students' progress online. *My Grammar Lab* consists of a textbook and an online program that contains tests and practices. Its focus is on grammar. The instructors can set the deadlines for each online-task and can check the students' progress.

	Azar Interactive	*Academic Connections*	*My Grammar Lab*
Textbook is accompanied by online program		✔	✔
Instructors can check the students' progress	✔	✔	✔
Instructors can set the deadlines for each task		✔	✔
Years used	Freshmen (2012)	Sophomores (2012) Freshmen and Sophomores (2013, 2014)	Freshmen and Sophomores (2013, 2014)

Table 1. Descriptions of Textbooks Used in the Study

For both freshmen and sophomores, the students attended two 70-minute classes a week, and the class size was about 20 students. There were 13 small classes with 13 instructors who taught based on the same syllabus.

Blended Learning vs. Self-paced Learning

In the first year of our study, we compared the effectiveness of blended learning and self-paced learning in the students' attitudes toward self-study.

Conditions

In the freshman classes, the students used *Azar Interactive* as supplementary material. The students were told to use the material for self-study and to finish the online tasks by the end of both spring and fall semesters. Although the instructors could check the students' progress in their online tasks, in order to raise the students' awareness for self-study, the students were told to submit the scores of the tasks at the end of each term.

In the sophomore classes, the students used *Academic Connections*. The instructors taught the four skills using the textbook in class, and the students completed online tasks to supplement the in-class activities on their own.

Students

In 2012, 246 sophomores took English 3 & 4, and 229 freshmen took English 1 & 2. All these English courses were a requirement for their degree. There were 13 small classes of about 20 students in each level, and 13 instructors were teaching. Among the students, 160 freshmen and 193 sophomores responded to the questionnaire.

Teaching Methods and Questionnaires

In the freshman classes, the students were told at the beginning of the spring and the fall semesters to complete the assigned tasks in *Azar Interactive*. The tasks were assigned in such a way that the students could complete all the tasks in one year. At the end of each term, the students submitted a grade sheet in which they filled in the score of each task. These scores were included in their grades. The instructors checked the students' progress online, but did not teach the content in class, i.e., it was planned to be self-study.

The sophomore classes were taught using a blended-learning approach. The instructors taught the four skills of English in class using the *Academic Connections* textbook. The online tasks were assigned for the students to preview and review what was taught in class. The due dates of these online tasks were set on a twice-a-week basis. The instructors checked the students' progress online, and included the scores in the students' grades.

In December, 2012, the students answered the following questions.

1. How many hours a week do you spend on online assignments?

2. How many hours a week do you spend on offline assignments?

Responses and Discussion

Figure 3 shows the online and offline study hours per week of the students in both years. A comparison of the number of online study hours between the freshmen and the sophomores shows that sophomores spent more hours online. While 42% of the freshmen studied less than 30 minutes, only 14% of the sophomores studied less than 30 minutes. This indicates that students' online study hours increased when the online activities were assigned to supplement the face-to-face instruction in class. In other words, blended learning is effective in increasing the students' online study hours.

The fact that the sophomores spent more hours online indicates that scheduled assignments with detailed deadlines may lead to the formation of continuous study habits. It is notable that although the number is small (3.8%), there were freshmen who spent more hours (over 5 hours a week) online in the condition with no scheduled assignments. However, we can say that without detailed deadlines, self-directed learning does not happen with most of the students.

Scheduled Assignments vs. Scheduled Assignments in a Blended Learning Situation

In 2013 we adopted *My Grammar Lab*, which allows instructors to assign tasks online with due dates. In that year, students used two textbooks, *Academic Connections* and *My Grammar Lab*, each with an online program that could be used as blended-learning material or as self-study material.

Conditions

Freshmen used *Academic Connections Level 1* and *My Grammar Lab Elementary*, and sophomores used *Academic Connections Level 2* and *My Grammar Lab Intermediate*. Both levels of students basically had similar syllabuses. The course grades were determined based on the following:

1. Class grades (40%: 20% for each of two weekly class meetings)

2. Online grades (20% for two online programs)

3.　Exam grades (40%: 20% for midterm exam, 20% for final exam)

Of these, the online grades were basically determined based on the scores of the online assignments. In 2013, only assignments with due dates were included in the grade. In 2014, the scores from other practices could also be included.
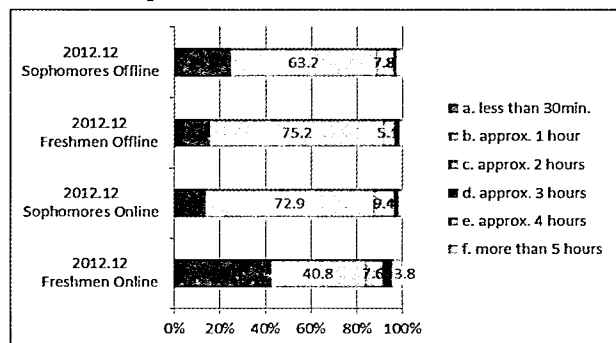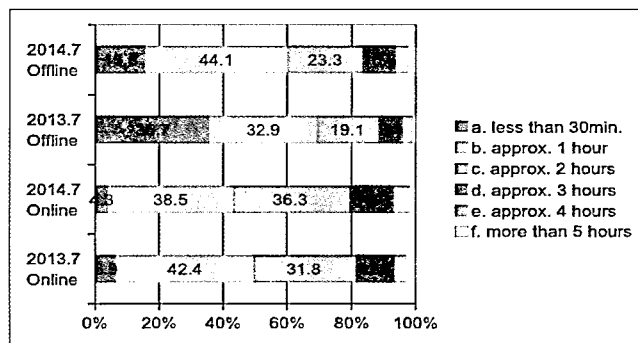

Figure 3. 2012 Weekly Study Hours

Figure 4. Weekly study hours in 2013 and 2014

Students

In 2013, among some 500 students, freshmen and sophomores combined, 434 students participated in a survey conducted in July. In 2014, we administered a survey asking students about their study hours in July and also in October. In July 2014, a total of 322 responded to the survey conducted online. In October 2014, 215 freshmen and 161 sophomores responded to a similar questionnaire online.

Teaching Methods and Questionnaire

In both freshman and sophomore courses we used a blended learning approach with a standardized syllabus. Classes were carefully planned with daily assignment schedules. Homework was composed of online assignments and offline assignments. Among the online assignments, there were tests with fixed due dates and practices that students could do at any time. All the tests and practices were graded; tests had a limited number of trials, but students could do practices as many times as they needed. All the tasks on *Academic Connections* were assignments with fixed due dates and limited trial opportunities. *My Grammar Lab*, on the other hand, had both assignments with due dates and practices with no due dates. For both textbooks, classroom activities and online tasks were incorporated, and teachers monitored the performance of students both online and in class.

In 2013, only *Academic Connections* was used as blended learning material, and *My Grammar Lab* was used for self-study, so the content of *My Grammar Lab* was not taught explicitly in individual classes. In 2014, we could allocate one class hour to cover each module of *My Grammar Lab*, so about nine class hours were used to teach grammar using *My Grammar Lab* in each semester in 2014. Thus, the 2013 program and the 2014 program were different, and the 2014 program had a larger blended learning component.

The way the online grades were submitted was also different. In 2013, only the assignments with deadlines with a limited number of trials were used for online grades. In 2014, in order to promote students' self-management they were given a digital online grade calculation form. Students put all

their scores on the form by themselves, so they knew their final scores before they submitted the grade sheet. The calculation sheet had a function to add extra credit for the practices, so the students knew exactly how much to do to get the scores they wanted. We conducted similar surveys in 2013 and in July and October of 2014 as the one we did in 2012.

Responses and Discussion

The results of the surveys, 2013 and July 2014, were compared, and we found that more students studied longer, both online and offline, in July 2014. Especially, in July 2014, the vast majority of students studied online and offline at least one hour each per week (Figure 4). The most notable difference was the increase in offline study hours, when well over half of the students spent at least two hours to study offline a week. This suggests that when both online and in-class activities are incorporated, more students spent more hours on offline activities, which included both homework and self-study. However, while over 10% of students studied more than three hours a week offline, still 15.8% of students studied less than an hour.

In order to find if there are differences in study hours between freshmen and sophomores, we asked the students again in October 2014. Figure 5 and 6 summarize the results from all four surveys. It shows that more sophomores studied both online and offline longer hours than freshmen in general.

Although the levels were different, we used the same set of teaching materials for both groups of students, so longer study hours of sophomores can be attributed to several reasons. One main reason can be that sophomores have developed study habits over the course of the two years of academic English requirement. A second reason could be that because the level of the textbook was higher for sophomores, they needed to spend more time to study in order to keep up with the work in class.

Total study hours decreased in October. As the data indicate more students studied longer hours in July than in October 2014 (Figure 5, 6), and this was more obvious for freshmen. There was a final exam in July and a midterm in November, but the students studied longer before the final exam. It could be because most other courses students were taking had only final examinations unlike some other courses including English that had both midterms and finals. A typical Japanese student would only study just before the final exam, so even with scheduled assignments, the total hours of study may reflect that.
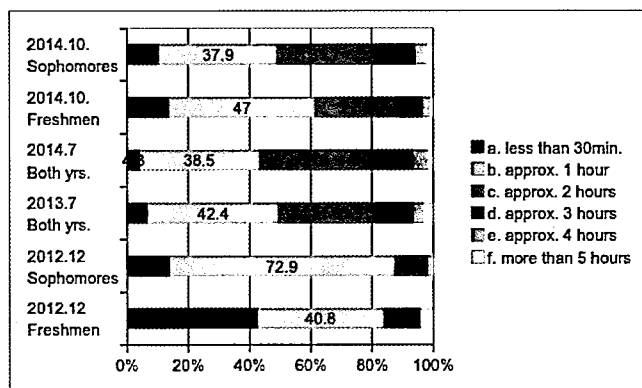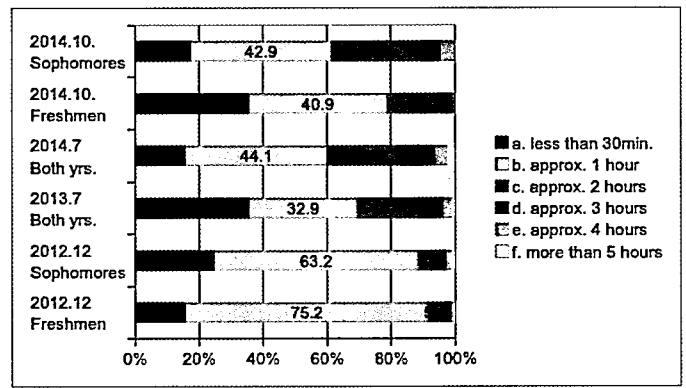

Figure 5. Online study hours in 2012-2014

Figure 6. Offline study hours in 2012-2014

The ratio of students who study longer than two hours has increased since 2012. In 2012, when the online program was used as independent self-study material, 42% of the freshmen did not study online regularly, and they most likely used the online material just before the due date at the end of the term. However, when we used a blended learning approach in 2014, although regular online study hours increased, offline study hours decreased as more students (34.0%) studied offline less than 30 minutes. This tendency may indicate that freshmen, in particular, still have not established their study habits. For them, online assignments were a new addition to their everyday studies, and it would have been difficult to study online on their own, so they ended up using a lot of time just before the due date to complete the assignments instead of working regularly on a daily basis. In 2013 and 2014, students were provided with detailed assignment schedules with due dates, and this promoted an increase in weekly study hours, which suggests that our students have yet to develop learner autonomy.

General Discussion

Japanese students' study hours are short compared to the students in many other countries in the world. There are several reasons for this. Because the number of classroom contact hours is extremely limited for students in Japanese universities, it is not an easy task to increase study hours outside of classes. Most English language courses meet once or twice a week, but not more than that, so it is difficult to maintain students' motivation, and also studying with a large interval between classes is not very efficient. As a result, Japanese students hardly study English outside of the classrooms. This is also true in other areas of study, so not studying between classes has become the norm in Japan. Online programs can be useful to change this norm.

As we have documented, online assignments with scheduled due dates promote longer study hours for our students. Although we want our students to be more independent and autonomous learners of English, without taking some drastic measures, it is a very difficult task for English teachers in Japan, where students do not study outside of their classes as a norm. We found, however, there was a small group of self-directed learners who studied longer hours without tasks assigned by the teacher. We have introduced a program that forced students to spend time studying English to see if the students would comply with it. The results show that students would study if we assigned a large enough amount of homework. We also found that online assignments are effective tools if they are used in a blended learning environment. Setting detailed due dates for online assignments also proved effective in increasing the students' online study hours.

There are some concerns related to online assignments and overall study hours. Firstly, our students actually studied between classes, but their motivation was most likely instrumental. Therefore, once the class is over, many students may stop studying. Secondly, in our program it was possible to have the students work outside of the classroom, but this is only possible when the course is required for the degree and also when all the students are following the same syllabus. Thus, in this type of program, it is necessary to create an atmosphere in which everyone is working on the same task at the same time. Thirdly, by implementing a blended learning approach it was possible to increase not only online study hours but also offline study hours, but it was also attributed to in-class homework assignments. Because there were regular homework assignments online, students didn't mind doing

other types of homework either. These factors contributed to longer study hours, but the students were not studying independently with their own goals and methods.

Based on these findings, it is a bit too early to conclude that our students have established good study habits yet. However, by working hard to fulfill the requirement to pass the course, students are experiencing language learning activities, which may lead to more self-directed autonomous learning in the future, and through the learning process, more intrinsic motivation may also be induced.

During the three years of using a blended learning approach, we could successfully have our students spend longer hours studying English, but we still need more studies to find a way to promote self-directed learning.

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