

Dynamics of Effort in Flipped Classrooms in an EFL Environment

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ABSTRACT

In the present study, I investigate the effects of using a flipped classroom teaching method on the effort and proficiency of students learning English composition writing in an English as a foreign language (EFL) environment. A total of 17 undergraduate college students attending a university in northeast Japan took part in the quasi-experimental study. Effort was measured by the number of words written by students in each composition with a statistically significant increase being observed between the pretest and the posttest ($t(16) = 10.26, p < .001, d = 3.13$). Following the advice of recent studies in second language (L2) motivation research, the author also looked at the dynamics of effort throughout the course, where a Friedman test showed a statistically significant difference throughout the 12 topics written by students throughout the course ($\chi^2(11, N = 14) = 67.87, p < .001$). Finally, changes in the proficiency levels of students were also measured by having native speakers rate each composition. Significant improvement was seen in the post-test in comparison to the pre-test conducted at the beginning of the course ($t(50) = 6.48, p < .01, d = 1.17$). Based on the salient improvements seen in both the effort and proficiency of students, the author recommends the flipped classroom method as an effective way of teaching EFL, especially in the Japanese context.

Key words : Flipped learning, L2 writing, L2 learning effort, CALL

Introduction

In the past two decades, dramatic changes in technology have brought about immense differences to our everyday lives, including the way we work, play, and, of course, learn. Computers are becoming thinner and lighter, yet faster and more powerful. Mobile phones have developed from heavy slow brick-like devices into much lighter smartphones, which give the owner the capability to access the Internet at just about anytime, just by the touch of a button. Through Internet access, not only can contact with friends, relatives, colleagues, and almost anyone around the world be achieved in an instant, information, including photographs and videos, can easily be shared through homepages, social networking services and video sharing web sites. Video sharing web sites, such as the YouTube® site invented by Steven Chen and Chad Hurley, have especially received attention

from the public, with YouTube® statistics showing more than one billion users and over 300 hours of videos uploaded to the site every minute, with up to 60% of those watching these videos living in a different country to the people who created them (YouTube, 2015). Although many people use such videos for personal entertainment, the ease with which humans can access videos recorded in various countries has created much interest in the field of education, especially in foreign language education where access to the target language would otherwise be limited.

Computer-assisted language learning and computer-assisted language teaching have generated a lot of interest among language teachers, especially since the increase in number of language laboratories in academic institutions in the 1960s. Since then, as computers have become cheaper and more accessible

since the 1970s, research into how this approach to teaching influences the attitudes to learning and language proficiency of students has also increased. More recently, blended learning, integrating the use of the Internet into regular classroom environments, has grown in popularity. One example of blended learning, the flipped classroom method, has also received much attention from a wide range of scholars. The purpose of this study is to investigate the extent to which the flipped method has on increasing the effort made by students, in addition to changes in L2 proficiency.

Literature Review

Flipped classroom research in EFL

The flipped classroom method has created much excitement in computer assisted language learning circles. In the flipped classroom method, instructors provide explanations of lesson content, which would traditionally be conducted during class time, via online video sharing web sites such as YouTube®. Students are then required to watch these videoed explanations via devices that can connect to the Internet, such as computers, tablet computers and smartphones. Because the students have already watched the instructor's explanations, in the designated class time more effort can be spent on giving more personal assistance to students as they work on tasks focused on topics being studied in that lesson.

The majority of studies and literature dedicated to the flipped classroom method have focused on either describing how to use this way to teaching effectively (e.g., Herried & Schiller, 2013; Bergmann & Sams, 2012) or investigating the effects of this method of teaching in non-linguistic subjects such as math and science (e.g., Strayer, 2007). Several discussions have been conducted pertaining to how this approach can be useful for teachers and students learning foreign languages. When writing about the use of technology in foreign language classrooms, Cowie and Sakui (2014), for example, view the flipped classroom as a valuable way of encouraging students to access lesson material while away from the classroom in a way that

cannot be replicated to the same effect in the traditional classroom.

Although there is a great amount of literature discussing flipped classrooms in an EFL environment, there seem to be few scientific studies investigating whether this teaching method is effective in assisting students' learning. In one study of the attitudes of university students in northeast Japan toward learning under the flipped classroom method, Mehring (2015) suggested that this method increased the responsibility students felt to be more active in classes, especially in comparison to the traditionally passive high school classroom participants had been used to (see Aspinall, 2006; Nakata, 2006). Ishikawa et al. (2014) used the flipped classroom method as part of a course focusing on improving students' scores in the TOEIC Test. In this study, students were required to solve problems using online courseware for homework, and then during class time, received individual instruction to improve their test-tasking skills. The results of Ishikawa et al.'s study indicated that students were very satisfied with the flipped method of learning and at the end of the course had high confidence that they would be successful in achieving high scores in the proficiency test.

Although the studies conducted by Mehring (2015) and Ishikawa et al. (2014) are vital to gain an understanding of the influence of using the flipped classroom method in an EFL environment, there is still not enough statistical evidence to support the hypothesis that the flipped method brings about significantly higher proficiency and an increase in the amount of effort students make in the classroom, not only measured by a pre-post-test designed study, but also considering the dynamics occurring from the beginning to the end of the study.

Complex dynamic systems in motivation research

As the name suggests, research related to complex dynamic systems in motivation is far from simple and a detailed report is beyond the scope of this paper. Ellis (2007) explains that in a complex system, changes are perpetual and are influenced by

interaction between cognitive, affective, social and environmental factors. Therefore, instructors should not expect to see a static and steady increase (or decrease) in the motivational levels of their students, but rather fluctuations in these levels, as students are affected by variables, both within and beyond the control of the teacher.

Dörnyei, MacIntyre and Henry (2015) suggest that a number of theories concentrating on measuring students' levels of L2 learning motivation under multiple rubrics, such as the chaos theory introduced by Larsen-Freeman (1997), Ellis and Larsen-Freeman's emergentism (2006), dynamic systems theory (de Bot et al., 2007) and the complexity theory of Larsen-Freeman and Cameron (2008) were responsible for complex dynamic systems being introduced into the field of SLA. Although there is a large amount of literature supporting the theories of a dynamic approach to L2 learning motivation, Dörnyei, MacIntyre and Henry (2015) recognized a need to increase the volume of empirical studies to give further insight to the complexity of the drive behind a student learning a language that is not his or her mother tongue. In response to this call, more empirical studies have been conducted to fill this important gap in L2 learning motivation research, ranging from a study investigating the dynamic effects and changes of Japanese university students before and while studying abroad (Irie & Ryan, 2015), to one investigating approach and avoidance changes in students' anxiety levels on a per-second timescale due to their performance in language tasks (MacIntyre & Serroul, 2015). Although it is generally accepted that a dynamic paradigm shift in SLA research is necessary, Noels (2014) stresses that it is too early for researchers to discard pretest/posttest research designs, which still give us important knowledge to deepen our understanding of the motivation of language learners.

Research Questions

Considering the lack of empirical studies related to the effects of using the flipped classroom method in an EFL environment, and the need for a more

dynamic approach to research in the field of L2 learning motivation, in the present study, I aim to provide answers to the following research questions (RQs):

1. Does using a flipped classroom method result in significant improvement in participants' effort to write English compositions?
2. How do the dynamics of effort change over the duration of a course taught using a flipped classroom method?
3. Does the use of a flipped classroom methodology in an English composition class result in a significant improvement in proficiency?

Based on one the conclusions of a previous study (Leis, Cooke & Tohei, 2015), the author predicts that the flipped classroom method will be successful in resulting in a significant increase in effort made by students and likewise a large improvement in students' linguistic proficiency will also be seen.

The Study

Participants

The participants in the present study were 17 EFL students (four male and 13 female) enrolled in an English composition course at a university in north-east Japan. The average age of participants was 19.47 ($SD = 1.01$). The majority of participants (i.e., 11) majored in English education at their university. The other majors were special needs education (i.e., four students) with three focusing on teaching deaf and hard-of-hearing students and one on the education of those with developmental disorders. One participant majored in kindergarten education and one in Japanese. The students majoring in English took this English composition course to obtain credit as a requirement for graduation. The other students took the course and an elective in order to improve their English language skills. Because the students either majored in English or chose to take this English course and class attendance by the participants was very good (only three students being absent once each during the study), it was assumed by the author that

participants were highly motivated to learn English from the beginning.

Materials and procedure

Despite the present quasi-experimental study being conducted in an English written composition class, the chosen textbook focused on improving students' reading proficiency. By using such a text, the instructor aimed to provide input by having students read and notice the structure (e.g., introduction, body, conclusion, topic sentences, thesis statement, etc.) of passages written in the text and then give opportunities for output by having them write English compositions each week. No minimum or maximum word limit was required for each of these compositions, meaning students were free to write as much or as little as they liked. The instructor recorded the total number of words written by the students each week.

All compositions conducted throughout the study were submitted electronically. For the first six weeks, students typed their compositions on a Word® document, which was then emailed to the instructor. After Topic 6, the instructor changed the submission format to Google Docs®, which were distributed through the Google Drive® add-on, Doctopus®¹. This decision was made to enable students to access their documents at anytime as well as for uniformity throughout the composition styles².

In Topic 1, students were asked to write a composition based on their opinion of the effects of advances in technology on the environment. After writing compositions on various topics throughout the course, for Topic 12, they were asked to write about the same topic as they had written for Topic 1. These compositions written for Topic 1 and Topic 12 were collected and three native speakers of English, who were not aware of the purpose of this study, were asked to give a score out of 25 to each composition based on a rubric that had been used by the instructor throughout the course (see Appendix). The marking rubric focused upon the structure of the composition, with 60% of the total score being given for introduction, body and conclusion and 20% being given for

content. Because the instructor did not concentrate heavily on grammatical accuracy throughout the course, only 20% of the total score was weighed to grammatical accuracy. The results of effort based on the number of words written and proficiency were analyzed using SPSS Version 22.

It should be noted that after the sixth week of the course, a review test was conducted during class covering Units 1 to 6 in the textbook. The compositions written by students during this test were not included in this study as they were written under different conditions to other compositions throughout the course. Therefore, there was a two-week gap between Topics 6 and 7 in the course.

Results and discussion

In the present study, I investigate the effects on student effort as a result of studying under a flipped classroom methodology. To measure changes in effort, first I compared the number of words written in a composition for Topic 1 of the course and the number of words written in the same composition topic for Topic 12 of the same course. In a similar study, Leis et al. (2015) reported that students in a flipped classroom environment made significantly more effort to write than those in a regular classroom. Also, students in the flipped classroom made significantly more effort in the final writing topic than that in the initial composition. This improvement was not seen in the regular class. Similar results of a statistically significant improvement in effort and proficiency due to being in a flipped classroom environment are evident in the present study.

First, a paired samples *t* Test was conducted to analyze whether a significant improvement in the effort to write could be observed at the end of the study when compared to the effort made to write about the same topic at the beginning. The results indicated that the mean number of words in Topic 12 ($M = 255.88$, $SD = 44.82$) was significantly greater than that of Topic 1 ($M = 131.18$, $SD = 34.15$), $t(16) = 10.26$, $p < .001$. The standardized effect size index, d , was 3.13 and 95% confidence interval for the

Table 1*Statistical Descriptions for the Number of Words in the Pre- and Posttest in this Study*

Test	<i>M</i>	<i>SD</i>	95%CI	Skewness	Kurtosis
Pretest	131.18	34.15	[113.62, 148.73]	-.25	-1.26
Posttest	255.88*	44.82	[232.84, 278.93]	.68	-.66

Note. $N = 17$; * $p < .001$.

mean difference between the two ratings was 98.93 to 150.48. Table 1 displays the statistical descriptions for the number of words written by students in composition in the pre- and posttest of this study.

These results indicate that the use of a flipped classroom in an English composition course did indeed bring about a significant improvement in the effort participants made in their composition writing. One reason for this may lie in the ability to understand the instructions given by the instructor better under the flipped method than under the traditional method. In the videos presented to students in this study, subtitles were made available for students to add or remove from the video at will. Because the subtitles were timed to appear on the screen at the same time of the instructor's utterances, participants may have understood the content of the videos much more than if there were no subtitles, or the lesson had been conducted in a traditional classroom.

The use of subtitles and consequent repercussions on language learning in an EFL environment has proved to be effective in increasing both listening ability (e.g., Chung, 1999; Huang & Eskey, 2000; Jones & Plass, 2002; Winke et al., 2010; Yang & Chang, 2014) and vocabulary acquisition (e.g., Garza, 1991; Markum, 1999; Huang & Eskey, 2000; Yuksel & Tanriverdi, 2009). The results of Yang and Chang's (2014) suggest although the use of full captions helped all students improve their listening proficiency, providing annotated keywords (i.e., using colors or other effects to highlight keywords) increased students' comprehension as well as their ability to catch reduced forms of language even more. Therefore, it may be beneficial for instructors to consider ways of

making keywords more recognizable in the subtitles of the flipped classroom videos in order to increase students' comprehension of the content. In the present study, although animation of key points of each section of the explanation was included in the visual parts of the slides, no such annotation had been considered for the subtitles. It can be concluded, however, that the combination of subtitles being made available for students and animated explanations within the slides themselves, increased the level to which students comprehended the explanations of the text given by the instructor in the videos. Thus, students understood more clearly the writing tasks they were given throughout the course, resulting in a statistically greater effort in the posttest. Whether this improvement could be observed each week of this study, and possible reasons for significant spikes or dips ($p < .05$) in the number of words (i.e., effort) made by students will be noticeable by looking at the dynamics of students' effort.

In the second RQ, I ask how the dynamics of effort change as a result of studying under the flipped method. Table 2 displays the average number of words written by students in each composition in the 12 weeks of this course along with the composition topic for each week.

A Friedman test was conducted to evaluate differences in medians among the number of words written each week. For the purposes of an accurate analysis, the data from students who were absent during the study (i.e., three students) were removed. The test was significant, $\chi^2(11, N = 14) = 67.87, p < .001$. Figure 1 displays a graphical image of changes in student's effort in the twelve topics of the present

Table 2*Average Number of Words in Students' Compositions*

Topic	Composition Topic	Words
1	Watch the video and give your opinion regarding advances in technology and their effects on the environment.	131.18
2	Write three diary entries about the daily life of a Japanese university student for a magazine in the United States.	285.06
3	Interview your partner about one aspect of their university life. Write a report on this interview.	292.60
4	Think of three smartphone applications that are popular for university students. Persuade me to download them.	280.41
5	Describe three unusual Japanese foods.	317.35
6	Write a recipe for a food you can cook well.	330.47
7	Think of a field you are interested in (e.g., Australian animals, European architecture). Briefly describe five items in that field.	304.65
8	Choose one of the items you described in Topic 7 and give a more detailed description.	284.35
9	Write diary entries for three days past week.	352.88
10	Write about a first experience you had that was a little scary.	269.88
11	Find a magazine article you are interested in. Write a question based on that article, then write an answer for that question.	251.88
12	Watch the video and give your opinion regarding advances in technology and their effects on the environment.	255.88

Note. Composition topics are summarized for the purposes of this paper.

study.

Some scholars (e.g., Ur, 2013) have expressed concern that the results of research pertaining to the use of technology in the classroom may be influenced by the Hawthorne Effect. The Hawthorne Effect, according to Gillespie (1993), refers to a series of experiments conducted on worker satisfaction at the Hawthorne Works of the Western Electric Company. In the experiments, researchers measured the effects of different shades of lighting on the productivity of workers. Although there is debate surrounding the actual results of these experiments, some accounts claim that workers' production was affected not by the different shades of light, but rather the simple fact they

were being experimented on. Because workers were aware of the experiments, they may have felt a need to increase production. Furthermore, although initially after each change in the shade of lighting there were sharp increases in production observed, this production level seemed to decline almost just as quickly. This is where Ur's (2013) concerns lay; although the use of technology may bring initial improvements in effort and proficiency, it does not seem to result in a lasting effect in the same way a traditional classroom does.

The results seem to partly support Ur's (2013) concerns about the Hawthorne Effect being evident in classrooms where technology is being used. After the

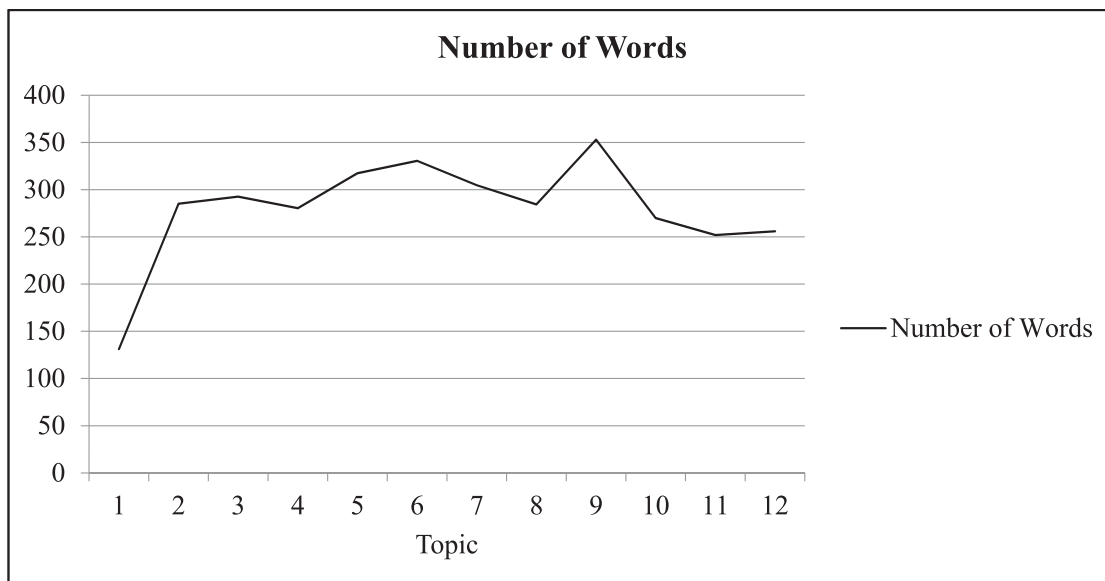


Figure 1. The number of words written by students in each composition displayed in a graph. The vertical axis presents the number of words. The horizontal axis shows the topic number. Due to a review test being conducted after Topic 6, there was a two-week gap between Topic 6 and Topic 7.

first week of the course, a dramatic rise is clearly seen to Topic 2. From there, the dynamic pattern of effort continues and although there are some dips throughout the course, none are sudden enough to suggest a statistically significant ($p > .05$) decline in effort on students' behalf. This decline in the number of words, albeit it minor, may have been as a result of the review test conducted after the sixth topic of the course. Students may have paid more attention to the test than to their weekly compositions, because it had a heavier influence on their overall grade for the course. A sharp and statistically significant spike ($p < .001$) in Topic 9 ($M = 352.88$) in comparison to Topic 8 ($M = 284.35$) provided a brief stoppage to the steady decline in effort seen in the latter half of the course. A salient drop ($p < .001$) was once again observed, however in Topic 10 ($M = 269.88$) in comparison to Topic 9 ($M = 352.88$). This rise and drop could be due to the composition topic (i.e., Write diary entries for three days past week), which was arguably the most personal of the composition topics students were asked to write on during this course. Furthermore, because students were asked to write

three diary entries in a one-week time frame, it was possible for students to write similar content each time. Thus, it was considerably easier for students to write more each time. Without this spike in the latter half of this study, the concerns of Ur (2013) would have been even more apparent. Therefore, it is vital that teachers considering implementing a flipped classroom methodology to their course be aware of the possibility of a declining drive in the latter half once the 'honeymoon phase' has faded out. Whether this pattern is also seen in other subjects beyond EFL requires further research.

Although not statistically significant ($\chi^2(2, N = 14) = 5.57, p = .062$), an obvious dip in the number of words produced by participants over a two-week period can also be observed from Week 6 to Week 8. As mentioned in the procedure section on this paper, after Topic 6 had been completed, students were required to complete a review test of the first six units of the text. A combination of a break from watching the flipped classroom videos, as well as studying for the review test, which included both vocabulary items as well as requiring students to write a composition,

may have influenced the decline in students' effort. Also, in Topic 7, participants were asked to briefly describe five different items in a particular field (see Table 2 above). By including the word 'briefly' in the composition task, the instructor had hoped to encourage students to focus more on getting to the point and concentrate on the most important parts of information to be conveyed to the reader in their composition, rather than for students to interpret the instruction as meaning that they were not required to write expansively. Furthermore, in Topic 8, participants were asked to develop one of the items they had covered in Topic 7. If students had chosen a theme they were not particularly familiar with for Topic 7, it would have resulted in a lower number of words for Topic 8. With the instructor focusing on three main points in the body of a composition throughout the course, it may have been more beneficial to only ask students to write about three items in Topic 7, especially considering the one-week gap in videoed explanations due to the review test.

Proficiency

The third RQ in this study investigates changes in students' proficiency as a result of participating in a class taught using the flipped classroom methodology. A paired samples *t* Test was conducted to measure whether a statistically significant improvement in the quality of students' written compositions could be observed. Table 2 displays the average scores given to students' compositions by three native speakers.

Paired samples *t* Tests were conducted for each of

the variables in the marking rubric as well as the total score. Although a significant improvement was not observed in the category of *accuracy* ($p = .47$), which was relatively high (i.e., 3.02) at the beginning of the course and not focused upon throughout, statistically significant progress was evident in the categories of *introduction* ($t(50) = 2.57$, $p = .01$), with a medium effect size ($d = .46$), *body* ($t(50) = 4.83$, $p < .01$), with a strong effect size ($d = .94$), *conclusion* ($t(50) = 4.21$, $p < .01$), with a strong effect size ($d = .85$), *content* ($t(50) = 4.71$, $p < .01$), with a strong effect size ($d = .92$), and the total score ($t(50) = 6.48$, $p < .01$), with a strong effect size ($d = 1.17$). The strengths of effect sizes are based upon the recommendations of Cohen (1992).

The results support the hypothesis that a significant improvement in students' writing proficiency would be observed as a result of participating in a class taught using the flipped method. One potential reason for this improvement may be in the ability to view the videos, including places misunderstood, as many times as students wished. Passing on the capability to view and review the videoed explanations of the text at times and places meeting each student's individual needs may prove to be effective in increasing the autonomous study habits of students. This perspective of autonomy is based on the definitions provided by a number of researchers of L2 learning motivation. Benson (2001) states, "I prefer to define autonomy as the capacity to take control of one's learning, largely because the contrast of control appears to be more open to investigation than the constructs of

Table 2

Average proficiency scores for written compositions in the present study

Week	Introduction (SD)	Body (SD)	Conclusion (SD)	Content (SD)	Accuracy (SD)	Total (SD)
1	2.80 (1.51)	1.82 (.84)	1.29 (1.01)	2.14 (.83)	3.02 (.88)	11.08 (2.77)
12	3.51* (1.55)	2.88** (1.35)	2.53** (1.80)	3.10** (1.22)	3.14 (.87)	15.16** (4.08)

Note. Max.: 5; Min.: 1; Total scores are given out of a maximum of 25; * $p < .05$; ** $p < .01$.

charge or responsibility (p. 47)". In addition, Cooke and Leis (2015) argue it is important not to misinterpret autonomy as self-instruction or individualization whereby learners can determine their own needs and act upon these needs independently. Through studies such as Kohonen's experiential model (1992), autonomy is conceptualized as an interdependent model, involving the student, the institution and the teachers within it. This enables students to explore avenues of self-regulation in learning both inside and outside the classroom. Based on these perspectives of autonomy, it appears the flipped method is especially recommendable for classroom environments in which students may feel less inclined to actively participate in learning process.

Conclusion

It is often a point of discussion among EFL instructors in Japan that many students tend to make little effort in class. Leis (2014) argued from the perspective of the Self-worth Theory (Covington, 1992; 1998) that creating a classroom atmosphere in which students do not compare themselves to others to be vital. Some researchers (e.g., Harumi, 2011) have argued that Japanese adolescents tend not to take the initiative in learning and wait to be told what to do. Therefore, it is necessary to consider teaching methods that encourage students to think more about classroom topics before the lesson is conducted by the teacher. In this paper, I have argued that the flipped classroom method is one way that seems to work in increasing not only the effort, but also the proficiency of students studying English composition writing. The results show that this increased effort is clear throughout the course, despite some dips due to review tests or composition topics which students may not have had the background knowledge to write enough about.

There is still much more room for further investigation into the effects of using a flipped classroom method in an EFL environment. Is this method effective in subjects beyond writing? Is the flipped classroom method more effective for students who have

higher proficiency (both based on tests and self-perceived) than for those who have lower proficiency? What does a more holistic view of students' motivation tell us about changes in their drive to study as a result of studying under the flipped method? In the early stages of empirical studies related to the flipped classroom method, however, it is clear that this approach to teaching is something more instructors should consider in order to see positive reactions in both the effort their students make and consequently the quality of the work they produce.

Notes

1. Doctopus® is a free add-on for Google Sheets allowing teachers to easily distribute manage and organize students' class projects. See <https://chrome.google.com/webstore/detail/doctopus/ffhegaddkjpkiemhnhpnmnadbkdhbf?hl=en> for more details.
2. By using Google Docs®, which can be installed on one's smartphone or computer tablet, students were able to access and edit their compositions even when outside of the classroom.

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References

- Aspinall, R. W. (2006, July). Using the paradigm of 'small cultures' to explain policy failure in the case of foreign language education in Japan. In *Japan Forum* (Vol. 18, No. 2, pp. 255-274). Taylor & Francis Group.
- Benson, P. (2001). *Teaching and researching autonomy in language learning*. Harlow: Pearson Education.
- Bergmann, J., & Sams, A. (2012). *Flip your classroom: Reach every student in every class every day*. Eugene: International Society for Technology in

- Education.
- Chung, J. M. (1999). The effects of using video texts supported with advance organizers and captions on Chinese college students' listening comprehension: An empirical study. *Foreign Language Annals*, 32 (3), 295-308.
- Cohen, J. (1992). A power primer. *Psychological Bulletin*, 112, 155-159.
- Cooke, S., & Leis, A. (2015). Examining the relations between motivation, receptive vocabulary acquisition and autonomous learning. *Memoirs of the Tohoku Institute of Technology Ser. II* 35, 35-42.
- Covington, M. V. (1992). *Making the grade: A self-worth perspective on motivation and school reform*. Cambridge: Cambridge University Press.
- Covington, M. V. (1998). *The will to learn: A guide for motivating young people*. Cambridge: Cambridge University Press.
- Cowie, N., & Sakui, K. (2014). Take your pick: Out-of-class, blended language and Web 2.0 projects, and online. *JALTCALL Journal* 10 (3), 273-286.
- de Bot, K., Lowie, W., & Verspoor, M. H. (2007). A Dynamic Systems Theory approach to second language acquisition. *Bilingualism: Language and Cognition* 10 (1), 7-21.
- Dörnyei, Z., MacIntyre, P. & Henry, A. (2015). *Motivational dynamics in language learning*. Bristol: Multilingual Matters.
- Ellis, N. C. (2007). Dynamic systems and SLA: The wood and the trees. *Bilingualism: Language and Cognition* 10, 23-25.
- Ellis, N. C. & Larsen-Freeman, D. (2006). Language emergence: Implications for applied linguistics - Introduction to the special issue. *Applied Linguistics* 27 (4), 558-589.
- Garza, T. J. (1991). Evaluating the use of captioned video materials in advanced foreign language learning. *Foreign Language Annals* 24 (3), 239-258.
- Gillespie, R. (1993). *Manufacturing knowledge: a history of the Hawthorne experiments*. Cambridge: Cambridge University Press.
- Harumi, S. (2011). Classroom silence: Voices from Japanese EFL learners. *ELT Journal* 65 (3), 260-269.
- Herreid, C. F., & Schiller, N. A. (2013). Case studies and the flipped classroom. *Journal of College Science Teaching* 42 (5), 62-66.
- Huang, H. C., & Eskey, D. E. (2000). The effects of closed-captioned television on the listening comprehension of intermediate English as a second language (ESL) students. *Journal of Educational Technology Systems* 28 (1), 75-96.
- Irie, K., & Ryan, S. (2015). Study abroad and the dynamics of change in learner L2 self-concept. In Z. Dörnyei, P. MacIntyre, & A. Henry. *Motivational dynamics in language learning*, 343-366.
- Ishikawa, Y., Akahane-Yamada, R., Smith, C., Tsubota, Y., & Dantsuji, M. (2014). Flipped learning in a university EFL course: Helping students improve their TOEIC scores. *INTED2014 Proceedings*, 5860-5867.
- Jones, L. C., & Plass, J. L. (2002). Supporting listening comprehension and vocabulary acquisition in French with multimedia annotations. *The Modern Language Journal* 86 (4), 546-561.
- Kohonen, V. (1992). Experiential language learning: second language learning as cooperative learner education. In D. Nunan (Ed.) *Collaborative language learning and teaching*. Cambridge: Cambridge University Press, 14-39.
- Larsen-Freeman, D. (1997). Chaos/complexity science and second language acquisition. *Applied Linguistics* 18, 141-165.
- Larsen-Freeman, D., & Cameron, L. (2008). *Complex Systems and Applied Linguistics*. Oxford: Oxford University Press.
- Leis, A. (2014). The self-confidence and performance of young learners in an EFL environment: A self-worth perspective. *JES Journal* 14, 84-99.
- Leis, A., Cooke, S., & Tohei, A. (2015). The effects of flipped classrooms on English composition writing in an EFL environment. *international journal of computer-Assisted Language Learning and Teaching* 5 (4), 37-51.
- MacIntyre, P. & Serroul, A. (2015). Motivation on a per-second timescale: Examining approach-avoidance

- motivation during L2 task performance. In Z. Dörnyei, P. MacIntyre, & A. Henry. *Motivational dynamics in language learning*. 109-138.
- Markham, P. (1999). Captioned Videotapes and Second Language Listening Word Recognition. *Foreign Language Annals* 32 (3), 321-328.
- Mehring, J. G. (2015). *An exploratory study of the lived experiences of Japanese undergraduate EFL students in the flipped classroom* (Doctoral dissertation, Pepperdine University).
- Nakata, Y. (2006). *Motivation and experience in foreign language learning*. Bern: Peter Lang.
- Noels, K. (2014, August). *Panel discussion* conducted at International Conference on Motivational Dynamics and Second Language Acquisition, Nottingham.
- Strayer, J. F. (2007). *The effects of the classroom flip on the learning environment: A comparison of learning activity in a traditional classroom and a flip classroom that used an intelligent tutoring system* (Doctoral dissertation, The Ohio State University).
- Ur, P. (2013, October). *A voyage of discovery*. Plenary presented at JALT2013: Learning is a Lifelong Voyage, Kobe.
- Winke, P., Gass, S., & Sydorenko, T. (2010). The effects of captioning videos used for foreign language listening activities. *Language Learning & Technology* 14 (1), 65-86.
- Yang, J. C., & Chang, P. (2014). Captions and reduced forms instruction: The impact on EFL students' listening comprehension. *ReCALL* 26 (01), 44-61.
- YouTube. (2015). *Press statistics*. Retrieved from <https://www.youtube.com/yt/press/statistics.html>
- Yuksel, D., & Tanriverdi, B. (2009). Effects of Watching Captioned Movie Clip on Vocabulary Development of EFL Learners. *Online Submission*, 8 (2).

Appendix

The rubric used for measuring proficiency in the present study

Accuracy	Content	Conclusion	Body	Introduction	
Almost perfect. The few mistakes do not affect understanding at all.	Interesting content, including something new for the reader.	Clear conclusion summarising and/or giving future directions. 15% of total composition length.	Clear and valid topic sentences in paragraphs. Strong examples and details.	Clear background information and thesis statement. 15% of total composition length.	5
Mistakes on difficult grammatical points that are not indicated by the computer	Interesting content, but lacking something new.	Clear conclusion summarising and/or giving future directions. 10% of total composition length.	Clear and valid topic sentences in paragraphs. Some examples and details.	Clear background information and thesis statement but only about 10% of total composition length.	4
Many mistakes on difficult grammatical points, including ones indicated by the computer	Discusses basic and common topics, but does add one or two interesting points.	Clear conclusion summarising and/or giving future directions. 5% of total composition length.	Clear and valid topic sentences in paragraphs, but very few examples and details.	Clear thesis statement but missing background information, or only about 5% of the total composition length.	3
Many mistakes on simple grammatical points such as singular / plural and third person 's'. Could easily be corrected with a simple	Only discusses basic and common topics.	Attempts to summarise the passage or give future directions, but in a very basic way.	Some examples and details, but not topic sentences.	There is some background information, but missing a thesis statement.	2
Many sentences that do not make sense. The composition is hard to understand.	Completely wrong topic. Seems to have not read the topic.	Only about one sentence which gives no real summary related to the content of the passage.	No clear paragraphs in the body.	Only about one sentence which gives no introduction to the composition.	1
Has not written a composition.	Has not written a composition.	No conclusion.	No body or completely wrong topic.	No introduction.	0