Student Perception of Online Homework in a Japanese University EFL Course

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Abstract

A study regarding student perceptions of online homework was conducted with an "English through Movies" course that had 25 students in a Japanese university. After two lessons, the course shifted from face-to-face to online lessons due to the COVID-19 pandemic. When classes were face-to-face, students recorded their homework answers in their textbooks, but when classes were online for the remainder of the semester, students instead submitted textbook answers online via Google Forms. At the end of the semester, a survey was conducted in which students indicated overall positive feelings about online homework. Student responses indicated that the system improved their motivation and understanding of the materials; they cited feedback as a positive factor, both the automatic feedback they received after submission as well as the targeted feedback given in class. However, although students preferred online homework in an online context, students preferred recording homework answers in their textbooks in a face-to-face context. Student responses underscore the importance of carefully choosing when and how to implement online learning tools to maximize learning outcomes and minimize dissatisfaction.

Keywords: *online homework, computer-based learning, feedback, motivation, assessment*

Introduction

Online homework is a relatively new tool in education, but the many different types of online homework make it difficult to understand its efficacy and how students actually feel about being asked to do it. This study aims to provide insight into student perceptions of completing their textbook homework online via Google Forms.

This study was conducted with an "English through Movies" course that had 25 students, who met for 100 minutes once a week for 14 weeks and used the textbook *Social Issues in the Movies – Discussion & Role-Play: Level 4* (Dyer, 2021). Although the first two lessons of the course were conducted face-to-face in a classroom, the remaining 12 lessons were conducted online in real-time via Zoom due to the COVID-19 pandemic. As a result, the original plan to have students complete homework within the textbook was altered. As soon as classes shifted online, students were likewise required to submit their textbook homework online instead of simply recording their answers in the textbooks.

Method

The textbook homework consisted of three sections that served as a review of the previous lesson and a preview of the next lesson. The first section contained five sentences split in half that were to be matched together. The second section was fill in the blanks with 10 sentences; a synonym for each blank was provided in the textbook, for example, "It is not possible to estimate its ___. (worth)" (p. 41). An appropriate response might be "value." The third section supplied a list of 5 idioms to be inserted into 10 fill-in-the-blank sentences. Completing these exercises in the book was

a relatively straightforward task. However, shifting the task online had the potential to make it more burdensome for students, as students had to both complete the textbook task and contend with an additional step of inputting their answers online.

Thus, when creating the Google Forms for students to input their homework, special consideration was given to making the system as easy to use as possible. The first section, matching, became a small grid, with numbers ascending vertically and letter answers forming the columns. The second section, synonyms, changed from open-ended to close-ended so that students could verify their answers. Each of these 10 questions had a dropdown menu of answer options. The third section, idioms, used a grid format similar to the style of the first matching section.

As soon as a student completed and submitted their homework, they received automated feedback that revealed the correct answers within Google Forms. In this way, they had the opportunity to verify whether they had understood the vocabulary and language points of the preceding lesson before completing further practice with the same points in the next lesson. In addition, they received an email copy of their responses, which served as both an acknowledgement that their work had been received as well as a document they could review when desired.

At the end of the final lesson, students were asked to complete a survey via Google Forms about the textbook homework they completed for the course (see Appendix A). Four binary items on the survey asked preferences between recording homework answers online and in the textbook regarding motivation, understanding, and within the contexts of online and face-to-face classes. There were also two Likert-type questions modeled after the questions in another study about online homework by Wooten and Dillard-Eggers (2013). One asked students whether online homework was much better or worse for understanding, and the other asked students to rate their experience using online homework. After each survey item, an open-ended "Why?" question provided students an opportunity to explain their answers. The means and standard deviations of the quantitative items were then collated with corresponding qualitative items to provide the analysis, as described below.

Results and Discussion

Of the 25 students in the class, 17 responded to the survey (see Appendix A). Student responses to binary survey items are presented in Table 1 below.

Table 1: Student responses to the binary items on the survey (n = 17)

No.	Item	M	SD
1	I felt more motivated to do my homework when... 私は…の時、宿題に対してやる気がより出ました。	0.76	0.44
2	I best understood the textbook's content when... 私は…の時、テキストの内容を最も理解できました。	0.59	0.51
3	In an online class, which do you think is better? オンライン授業において、どちらがより良いと思いますか。	0.82	0.39
4	In a face-to-face class, which do you think is better? 対面授業において、どちらがより良いと思いますか。	0.41	0.51

Note: 0 = Recording my answers for textbook exercises in the textbook. テキストの演習に対する自分の解答をテキストに記入した/記入する。
1 = Submitting my answers for textbook exercises online. テキストの演習に対する自分の解答をオンラインで提出した。

Motivation

Because the majority of the course was online, student responses may be skewed toward that context. Nonetheless, when responding to a binary survey item (see Table 1), 13 students indicated that they were more motivated to complete their homework when submitting it online (M= 0.76[0.44]).

If students are not held accountable for completing their homework, some may lack motivation to complete it. In an online context, there are few ways to effectively hold students accountable without requiring online homework. Several student comments expressed the students' understanding that the online system held them accountable:

- A teacher can check whether students did their homework.
- I feel that I receive a grade for doing my homework.（評価に含まれていると感じるから。）
- The teacher can properly see what I did. The teacher can tell whether the students did the homework.（やったかちゃんと見てもらえるから。さぼることが出来ない（やったかやっていないかがすぐ先生にばれる）から。）

In terms of the online system adding an extra step to homework completion, 13 students felt that the system either increased or did not decrease their motivation to do homework, but they expressed various ideas:

- It is unlikely to forget submitting the homework
- Personally, it's easier to answer on a computer than to write.（個人的に、書くよりもパソコンで答える方が楽だから。）
- It's quicker to enter the answer on the keyboard.（キーボードで答えを入力する方が手早くできるから。）
- I feel like I'm doing my homework more.（宿題をやっている実感がよりあったと感じるから。）

Some students mentioned the homework being easier online, possibly because the second section of the textbook homework, the open-ended "synonym" questions, became close-ended to make answer verification reliable. Several students indicated positive feelings about close-ended questions:

- [I like online homework] because there are choices to select answers.
- The answer choices were limited, so it was easy to choose.
- For synonym quiz, online homework is better because it has options

However, not all students felt motivated to complete homework online. Overall, four students indicated a preference for recording their homework answers in textbooks. One student felt that the first homework section, matching, was easier in the textbook, possibly because the textbook allowed students to draw lines when matching items, whereas the online system required choosing an answer in a multiple-choice grid. Another student noted the additional steps required to complete online homework:

Because what I have to do is just writing down the answers on my textbook. In the case of submitting it online, I had to repeat to look the textbook and the screen many times. It was a little bit tiring for me. However, we have no choice but doing so due to the virus.

Despite only a few responses indicating that submitting homework online was demotivating, the context of online classes during the COVID-19 pandemic may have impacted students' feelings as a whole because they felt that they had "no choice" except to submit homework in this way.

Understanding Textbook Content

In terms of understanding the content of textbook, 10 students indicated a preference for online homework (0.59[0.51]) on a binary survey item (see Table 1). Likewise, when responding to a 1–5 Likert-scale item (see Table 2), students also indicated a preference for online homework (3.94[1.20]).

Table 2: Student responses to the first Likert-type item on the survey (n = 17)

No.	Item	M	SD
1	In terms of understanding the textbook's content, how does submitting the homework online compare with recording your answers in the textbook? テキストの内容を理解することに関して、宿題をオンラインで提出することは、解答をテキストに記入することと比べてどうですか。	3.94	1.20

Note: The scale was 1–5, with labels on each side of the scale (see Appendix A).
　　　1 = Online homework is much worse オンラインの宿題の方が悪い。
　　　5 = Online homework is much better オンラインの宿題の方が良い。

On the binary item, 10 students indicated submitting answers online was better for learning; their open-ended responses expressed two advantages of online feedback. First, students can receive feedback on whether their answers are correct and and can view the correct answer. Several comments expressed this viewpoint:

- You can quickly find out what you don't understand.（自分でわからないものをすぐ調べられるから。）
- It's easy to review because you can work on it quickly and you can see the answer immediately.（手早く取り組める上に、回答がすぐにわかるため、復習しやすいから。）
- It is so good because I can see my own mistakes

Second, because of the way the online homework submission system functioned, students' answers were automatically collated. As a result, in-class feedback on the homework could be efficiently weighted toward language items that were widely misunderstood by the class:

- I think it doesn't matter if I carefully check the individual answers when recording them in the textbook, and also if many people made a mistake, then this is mentioned in class.（テキストでもきちんと個々人の回答がチェックされたり、多くの人が間違えていた問題について触れてもらえるならどちらでもよいと思う。）
- I receive feedback on my answers in class.（回答のフィードバックを授業。）

Nonetheless, online homework has disadvantages. Due to the close-ended questions introduced in the online adaptation of the textbook homework, one student expressed that recording answers in the textbook is better because "You will also be careful about details such as the tense of verbs."（動詞の時制などの細かいところにも気を付けることになるから）. Another disadvantage of submitting answers online is that it fails to benefit kinesthetic learning, a complaint widely expressed in student comments:

- I like writing text with my hands.
- I can deepen my understanding by actually writing.
- I can understand the contents of the textbook more when I use my hands to memorize information.
- There is no big difference difference between these two, but I can memorize better when I write down some vocabularies. In addition, recording answers gives me an opportunity to revise by myself. It improves my English skills more.

- It's easier to answer, but it doesn't promote understanding compared with recording for me.

Online and Face-to-Face Contexts

Because the course shifted from face-to-face to online after two lessons, students were able to experience both recording homework answers in their textbook and submitting their homework answers online. Given their experiences, students indicated a preference that the method of homework submission match the learning context. In binary survey items (see Table 1), 14 students expressed preferences that in an online class, online homework was best (0.82[0.39]). Meanwhile, 10 students felt that in a face-to-face class, recording answers in the textbook was best (0.41[0.51]).

Although this class did not submit textbook homework online while classes were face-to-face, the students expressed concerns about this possibility. One concern that the students expressed was that they may need to do the work twice:

- If I record my answers for textbook and send it online, it will be troublesome because the work will increase.
- During lessons, some students might want to review vocabularies, so it is useful for such students to record their answers [in the textbook] in advance as homework.

These comments highlight the importance of having learning materials physically available during face-to-face lessons, which may become more difficult if students' homework answers are only accessible digitally or more burdensome if student answers must be duplicated to be both physical and digital. Although these students' opinions are based on a hypothetical situation rather than an actual experience, consideration should be given to minimizing such issues when implementing online homework in a face-to-face context.

Students' Overall Feelings about Online Homework

Overall, on a 1–5 scale Likert item (see Table 3), students expressed a favorable impression of online homework (4.59[0.62]). The implementation of the online homework was well received, according to student comments:

- Although I prefer recording [answers in the textbook], online homework was convenient to use.
- It was easy to answer.

Table 3: Student responses to the second Likert-type item on the survey (n = 17)

No.	Item	M	SD
2	Overall, how would you rate your experience using online homework? 全体的に、オンラインの宿題に対するあなたの評価は	4.59	0.62

Note: The scale was 1-5, with labels on each side of the scale (see Appendix A).
   1 = Very bad とても悪い
   5 = Very good とても良い

Despite the generally positive feelings expressed by students, survey items and student comments suggest that context and implementation are vital in shaping students' opinions about online homework. For example, the Likert items (Tables 2 and 3) in this study roughly correspond to the Wooten and Dillard-Eggers (2013) study of online homework, but the results differ. In Wooten and Dillard Eggers' (2013) study, 453 accounting students in face-to-face classes were asked to

submit their textbook homework via the publisher's software. In answering the question, "With respect to learning, how does the use of online homework compare with 'pencil and paper' homework?" as a 1–5 scale Likert item (1 = "Much Better" and 5="Much Worse"), students indicated almost neutral feelings toward it, with a score of 2.21 from the 225 students required to do the homework and 2.90 from the 228 students for whom the homework was optional. Similarly, in responding to a second question, "Overall, how would you rate your experience using online homework?" as a 1–5 scale Likert item (1 = "Very Good" and 5="Very Bad"), students again indicated neutral feelings, with a score of 2.07 from the 225 students required to do the homework and 2.60 from the 228 students for whom the homework was optional. The contrast between students' perceptions of online homework in Wooten and Dillard Eggers' study (2013) and this study underscores the need to adapt homework to best suit the context and students' preferences.

Limitations

A limitation of this study is the small and relatively nondiverse sample size of 17 respondents of predominately upper-intermediate proficiency Japanese university students from which data were collected. Additionally, the rather unique context of the course, that is, changing from face-to-face to online, may further limit the range of applicability of the results.

Conclusion

Overall, students had positive feelings about online homework, but it is possible that responses were biased, as online homework was a logical option within the context of an online class. Even students with positive feelings about online homework did not always prefer it over doing homework in their textbooks. Context is a vital aspect for instructors to consider when deciding whether and how to use online homework.

More research needs to conducted on ways to improve student learning outcomes and students' feelings of satisfaction as a result of completing online homework. In a meta-analysis of formative assessment and feedback in various higher education settings, Morris et al. (2021) found "a rather mixed picture" with regard to online assessment and feedback systems and observed that it is difficult to empirically measure the effectiveness of such systems without funding carefully implemented wide-scale studies. Although large studies are necessary for affirming the efficacy, or lack thereof, of online learning tools, these tools have only very recently come into popular use within higher education. As a result, instructors who implement online assessment and feedback systems should do so with a careful concern for student needs and preferences to maximize learning outcomes within their context. In addition, the creators of online learning tools and the instructors using them should be willing to make continuous incremental adjustments to improve their efficacy.

References

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APPENDIX A
Survey Questions as Answered by Students via Google Form

I felt more motivated to do my homework when... 私は…の時、宿題に対してやる *
気がより出ました。

○ Recording my answers for textbook exercises in the textbook. テキストの演習に対
する自分の解答をテキストに記入した。

○ Submitting my answers for textbook exercises online. テキストの演習に対する自分
の解答をオンラインで提出した。

Why did this make you feel more motivated to do your homework? なぜそれによっ
てやる気がより出たのですか。

Your answer

I best understood the textbook's content when... 私は…の時、テキストの内容を *
最も理解できました。

○ Recording my answers for textbook exercises in the textbook. テキストの演習に対
する自分の解答をテキストに記入した。

○ Submitting my answers for textbook exercises online. テキストの演習に対する自分
の解答をオンラインで提出した。

How did this help you better understand the textbook's content? なぜそれによって
テキストの内容をより理解できたのですか。

Your answer

In an online class, which do you think is better? オンライン授業において、どちら *
がより良いと思いますか。

○ Recording my answers for textbook exercises in the textbook. テキストの演習に対
する自分の解答をテキストに記入する。

○ Submitting my answers for textbook exercises online. テキストの演習に対する自分
の解答をオンラインで提出する。

Why do you think this way is better for online classes? なぜオンライン授業におい
てその方法がより良いと思いますか。

Your answer

In a face-to-face class, which do you think is better? 対面授業において、どちらが *
より良いと思いますか。

○ Recording my answers for textbook exercises in the textbook. テキストの演習に対
する自分の解答をテキストに記入する。

○ Submitting my answers for textbook exercises online. テキストの演習に対する自分
の解答をオンラインで提出する。

Why do you think this way is better for face-to-face classes? なぜ対面授業において
その方法がより良いと思いますか。

Your answer

In terms of understanding the textbook's content, how does submitting the *
homework online compare with recording your answers in the textbook? テキスト
の内容を理解することに関して、宿題をオンラインで提出することは、解答をテ
キストに記入することと比べてどうですか。

	1	2	3	4	5	
Online homework is much worse オンラインの宿題の方が悪い。	○	○	○	○	○	Online homework is much better オンラインの宿題の方が良い。

Why did you give this rating? なぜそう評価しましたか。

Your answer

Overall, how would you rate your experience using online homework? 全体的に、 *
オンラインの宿題に対するあなたの評価は

	1	2	3	4	5	
Very bad とても悪い	○	○	○	○	○	Very good とても良い

Why did you give this rating? なぜそう評価しましたか。

Your answer