8

Doing peer feedback in a high school EFL writing class via Google Docs and Sheets: A workshop

Alvin Santos, Meiho Junior and Senior High School

Abstract

A number of viable inputs for improving student essay drafts are available for writing teachers to employ inside the classroom, one of which is peer feedback. In this article, key findings based on high school EFL writers' responses to pre- and post-study questionnaires on perspectives on peer feedback are presented. A replicable peer feedback workshop employing Google Docs and Google Sheets is included. This workshop forms part of a show and tell presentation which was held at the JALTCALL2021 all-online conference entitled, "Trialing of ICT-mediated feedback types in an EFL process writing class: Students' perspective." Answers to three research questions are provided: (1) How effective is the trialled peer feedback procedure?; (2) How appropriate are Google Docs and Google Sheets in mediating the trialled peer feedback procedure?; and (3) Are there any changes in students' (n=232) perspectives on doing peer feedback after the trialing study? Other interesting findings emanating from Google Forms student questionnaires and teacher field observation notes are enumerated to provide insights for further exploration through future scholarly endeavors.

生徒の論文の原稿を改善するために、教師が利用できる有効な活動は数多くあるが、そのうちの一つが「ピアフィードバック」である。本論文では、高校生がピアフィードバックに対する見解について、実験前後のアンケートに回答した結果を紹介します。また、Google DocsとGoogle Sheetsを用いたピア・フィードバック・ワークショップについて紹介します。このワークショップは、JALTCALL2021の年次会議で行われた「Trialing of ICT-mediated feedback types in an EFL process writing class」と題する発表の一部である。 3つの研究課題に対する解答が示されています。(1)試行したピアフィードバックはどの程度有効か、(2)ピアフィードバックを行うのに、Google DocsとGoogle Sheetsはどの程度適切か、(3)実験後に学生（n=232）のピアフィードに対する考え方に変化はあるか、(4)ピアフィードバックはどの程度効果があるか、(5)実験で得られた成果はどの程度か。その他、Googleフォームを用いた学生アンケートや教師の観察記録から得られた興味深い知見を紹介し、今後の学術的な取り組みを通じて、さらなる探求のための洞察を提供する。

Keywords: Peer feedback, Google Docs, Google Sheets, BYOD, high school EFL writing

Introduction

Various effects resulting from peer feedback practice among student writers were found in relevant scholarly endeavors. One, in fact, found peer editing to be beneficial in developing learning autonomy, boosting writing skills and know-hows, and making students more aware of the complexity of the writing process (Deni & Zainal, 2011). Another awareness that peer feedback fosters is letting peers see themselves as socially-situated actors in a writing discourse that happens as a social practice (Kasule & Lunga, 2010). Underpinnings such as Vygotsky's (1978) Zone of Proximal Development (ZPD) and socio-constructivist theories further inform the praxis of peer feedback as a catalyst for the co-creation of knowledge among learners.

Such peer feedback highlighted in the workshop included in the present study is of an ICT-mediated (Information and Communication Technology-mediated) approach. In particular, Google Docs (Google word processing application; docs.google.com) and Google Sheets (Google electronic spreadsheets application) serve as vehicles to carry out the feedback procedure. The unique features of Google Docs such as Document Sharing and Real-time Collaboration (Ambrose & Palpanathan, 2017) enable student writers from different locations to work on the same document at the same time (Colpitts & Past, 2019).

ICT integration in Japanese high schools has taken a pivotal role in the Japanese government's drive to promote the GIGA (Global and Innovation Gateway for All) School Concept (Horita, 2021). GIGA's main goals of (1) providing a ratio of one-to-one computing environment among students and (2) encouraging teachers to adapt an eclectic yet effective combination of Japanese traditional pedagogy and cutting-edge technology serve as a toll order for all educators to integrate ICT (Kihara, 2021) across the curriculum (termed as course of studies by MEXT – Japan's Ministry of Education, Culture, Sports, Science and Technology). The current study is in congruence with the overarching goals of the GIGA School Concept. When students undergo the peer feedback workshop utilizing Google Docs and Google Sheets, peers need to use their own device (in support of GIGA's Goal 1). More so, a combination of traditional classroom pedagogy including direct instruction and small group or individualized instruction (when needed); contemporary pedagogical approaches such as collaborative learning; and learning with ICT (Chromebook, Google Docs, and Google Sheets) are an integral part of the peer feedback workshop (in support of GIGA's Goal 2).

Prerequisites for implementing this peer feedback workshop among student writers include a stable Internet connection; and any of the following computing devices: a Chromebook (a portable computing device powered by Google applications), a personal computer (a desktop PC or a laptop), or a mobile device such as a smartphone, tablet PC, or phablet (phone-tablet PC). Having a one-to-one student-device ratio of the mentioned affordances in the classroom facilitates the smooth implementation of the workshop proper. This BYOD (Bring Your Own Device) option is anchored on the proven value that students place on freely choosing their own device to achieve desirable results when doing academic tasks (Thomas, 2020). A Google account (G-Account; accounts.google.com), which is easy to create and may be used for free, is another requisite as it is used to log in and access the two Google Workspace for Education (workspace.google.com) applications (a

collection of Google applications designed for teacher/educational use) employed in the workshop.

In the same vein as well-preparing the ICT affordances, pairing students for feedback purposes should be carefully considered. In a couple of studies on the nature of feedback provided by university student peers, Wang (2015) found that a dyad with high proficiency provided feedback on global aspects of their peer's work; whereas a dyad with intermediate proficiency was found to have provided feedback on both global and local aspects of their peer's writing. Conflicting results were generated by Colpitts and Past's (2019) investigation of Japanese university students' Google Docs-mediated peer feedback performance and perception, as student writers with high proficiency demonstrated a strong ability to point out mistakes on one another's papers; while cohorts with low proficiency could only provide each other with general impressions focused on content – providing limited inputs for making revisions.

Having these considerations of well-preparing the ICT affordances and feedback pairings in mind, writing teachers may conduct the trialling of the following peer feedback procedure as featured in the show and tell/workshop presentation in JALTCALL2021 entitled, "Trialling of ICT-mediated feedback types in an EFL process writing class: Students' perspective."

The trialled peer feedback procedure was conducted with the following questions in mind:

1. How effective is the trialled peer feedback procedure?;
2. How appropriate are Google Docs and Google Sheets in mediating the trialled peer feedback procedure?; and
3. Are there any changes in students' perspectives on doing peer feedback after the trialling study?

Method

Context

Grade 11 students at a coeducational private high school in Tokyo underwent the trialled peer feedback procedure in an English as a Foreign Language (EFL) writing class in the fall and winter of the school year 2020–2021. The students were grouped into eight sections. A total of 232 students participated in the study. The writing class was taught entirely in English and ran for forty minutes, once a week. As one of the course objectives is to promote ICT use, the school prescribed (in the school year when the present study was conducted) that all students have a Chromebook to use. However, having a Chromebook was not imposed as a rule. Thus, some students brought to school their own devices (iPad, smartphone, etc) instead. The researcher served as the sole teacher of this writing class.

Framework

The study took the form of action research adapted from Yuce and Atac (2019). It follows the stages of "planning," "action," "observation," and "reflection" as proposed. Wallace (1998) recommends trialling as the best way to determine the effectiveness of proposed teaching materials or approaches. He further posits that if trialling were to be considered as a form of action research, it has to be systematic. Finally, he asserts that when trialling

proposed materials or approaches: the process, the product, or both, can be evaluated (Wallace, 1998). Among these three, the process of the trialled approach (ICT-mediated peer feedback) was documented and evaluated in the present study.

Paradigm

The current study's paradigm appears in Figure 1.

Figure 1

Action research paradigm

Planning	Observation	Action	Reflection
Planning lessons Preparing workshop materials Preparing student perception questionnaires Plotting a study implementation timetable Pairing students	Implementing writing workshops Modeling of peer feedback procedure Teaching mini-grammar lessons for essay draft writing	Monitoring of actual peer feedback procedure Note-taking of field observations Fielding student questions/ small group re-training	Gathering data on student perspectives via Google Forms questionnaires Tabulation and graphic interpretation of data for synthesis

Planning

The overall goals of the trialling study as well as specific objectives for each lesson were documented. Materials for use in classroom-based writing workshops, such as Google Docs essay writing template and Google Sheets peer feedback checklist; as well as data-gathering instruments, such as Google Forms pre- and post-study questionnaire, peer feedback student perception questionnaire, and teacher field observation notes were likewise developed at this stage. Similarly, student pairings were determined. In the case of the study, proficiency pairing was observed such that students with similar writing proficiencies were assigned to each other. Student Term 1 grades in Writing 2 subject for the school year 2020–2021 were used as reference for student proficiency. Finally, a prescribed working timeline was devised to serve as an implementation guide.

Action

Actual classroom instruction, writing workshops, mini-grammar lessons, and step-by-step modelling of student tasks were conducted at this stage. Prior to such, a clear explanation of the goals of the trialling study was provided to students to make them aware of their participation in the study. Next, posting on Google Classroom (classroom. google.com) of a Google Forms pre-study student perception questionnaire that students

answered was done. All relevant tasks were conducted following the prescribed timeline as much as possible. Any deviations from the planned tasks execution schedule were noted.

Observation

Having conducted classroom instruction and modelling, students were allowed to try each relevant task on their own. With a teacher field observation note-taking form in hand, the teacher roamed around the writing classroom keenly monitoring how students endeavoured on each task. Occasional one-on-one retraining occurred as needed. Students seemingly at a loss on what to do were extended extra support. Close timekeeping was conducted all throughout each class to keep true to the prescribed timeline of the study.

Reflection

After all peer feedback-related tasks had been accomplished, a Google Forms student perception questionnaire on peer feedback was posted on the students' Google Classroom. Respondents' names were not collected to derive anonymous, honest answers. Students answered the questions as a form of reflection activity. They were likewise requested to answer the post-study student perceptions on completing questionnaires, which served as a tool for data comparison against the pre-study perception questionnaire. Data gathered using teacher field observation notes were summarized, documented, synthesized, and interpreted accordingly.

Instruments

Google Forms application was used to construct the data-gathering instruments. Google Forms is a Google application, which allows for the construction of surveys and quizzes and automatically gathers and interprets data in graphic form. The instruments were posted on the students' Google Classroom, a Learning Management System (LMS), which is free for use by teachers using a G-Account (Google account).

Pre-study and post-study writing perceptions student questionnaire

Questions aimed at gathering initial student perceptions on doing peer feedback were posted. The four statements, which were again asked on the post-study student perceptions questionnaire for purposes of comparison, follow:

1. "I like to read my classmates' writing"
2. "I think my classmates should mark my writing assignments"
3. "I would like to get feedback from my classmates about my writing"
4. "I think I can give honest feedback to my classmates about their writing."

Student perceptions questionnaire on the trialled peer feedback procedure

After doing the particular peer feedback procedure trialled in the study, students were asked to react to statements to help gather their perceptions. The two statements are: (1) "Peer feedback helped me improve my essay;" and (2) "Google Docs and Google Sheets were appropriate for giving and using peer feedback." Further, a question on what hardware

they used while undergoing the study was asked of the students to shed light on their gadget preference when in a Bring Your Own Device (BYOD) classroom environment.

Student responses interpretation guide

To each question in the Google Forms perception questionnaire, a 5-point Likert scale with options of "Strongly Agree," "Agree," "Neutral," "Disagree," and "Strongly Disagree" was made available, as shown in Table 1. Correspondingly, each option has an equivalent qualitative descriptor as to the degree of effectiveness/appropriateness of the constructs in question (i.e. peer feedback, Google Docs and Google Sheets) as appears in the same table.

Table 1
Student responses interpretation guide

Questionnaire descriptor	Interpretation equivalent
Strongly agree (SA)	Highly effective/Highly appropriate
Agree (A)	Moderately effective/ Moderately appropriate
Neutral (N)	Neither effective nor ineffective/ Neither appropriate nor inappropriate
Disagree (D)	Moderately ineffective/ Moderately inappropriate
Strongly disagree (SD)	Highly ineffective/Highly inappropriate

Workshop Proper

Doing peer feedback in an EFL writing class via Google Docs and Sheets

The trialled peer feedback procedure was implemented as follows. If it were to be replicated, it was recommended that throughout the workshop a step-by-step modelling by the teacher in class be conducted. With the aid of a multimedia screen, the actual steps that are to be done by students may be shown in detail.

Step 1. Assigning of Google Docs template on Google Classroom
Tech Tools: Chromebook/BYOD, Google Classroom, Google Drive, Google Docs, Internet/WiFi connectivity

1.1   On the Google Drive application (Google data cloud storage application; drive.google.com), a Google Docs template may be prepared by the teacher. A prompt at the top of the document may be written to guide students on the theme/topic of the essay, including some guidelines such as the expected number of words, or other specific conventions on writing. In addition, a rubric may be added to help with the objective evaluation of the student essay.

Figure 2

Assigning of Google Docs template on Google Classroom
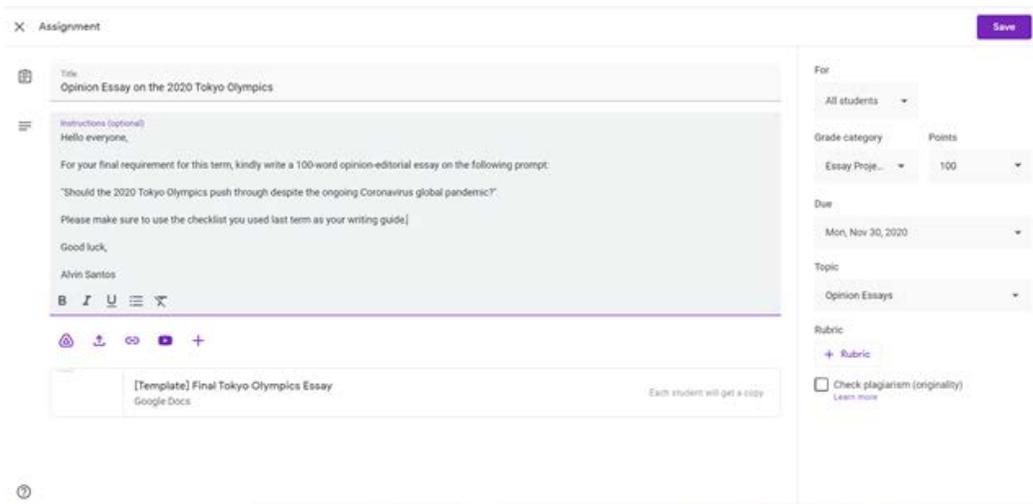
1.2   On Google Classroom of the writing class, the teacher may post the template created on Google Docs and saved on Google Drive. It may be posted as an "Assignment" and the option "Make a copy for each student" is chosen (see Figure 2).

1.3   Once posted, the Google Docs should be available for students to access and work on. A deadline may be set for turning in the essay draft, which will eventually be subjected to peer feedback.

Step 2. Sharing of Google Docs essay with peers
Tech Tools: Chromebook/BYOD, Google Classroom, Google Docs, Gmail, Internet/WiFi Connectivity

2.1   With the student essays written, peers may be assigned. Peers may be asked to share with each other their essays using the "Share" function of Google Docs (see Figure 3).

2.2   Students may be asked to check their Gmail (Google email application; mail.google.com) accounts as a notification on the sharing of the Google Docs of their peers should be received at such juncture.

2.3   Student peers may do an initial reading of their partner's essay.

Figure 3

Sharing of Google Docs essay with peer
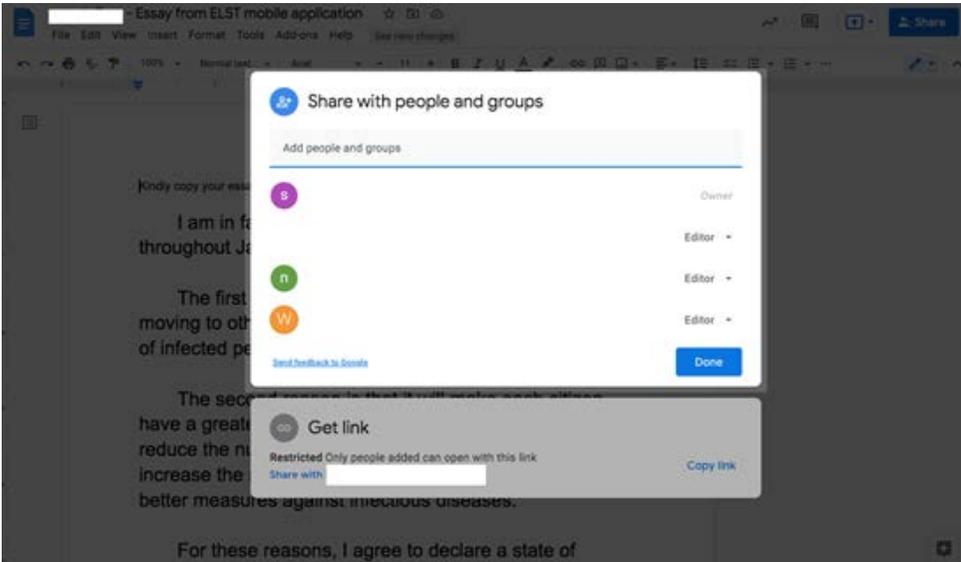
Step 3. Assigning of Google Sheets peer feedback checklist on Google Classroom
Tech Tools: Chromebook/BYOD, Google Classroom, Google Drive, Google Sheets,
           Internet/WiFi connectivity

Figure 4

Assigning of Google Sheets checklist on Google Classroom
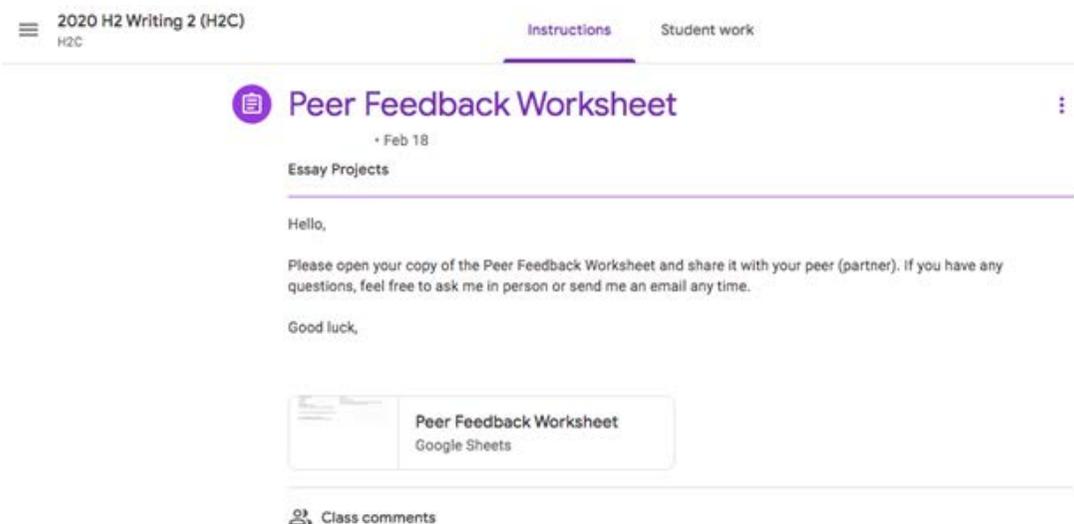
3.1   On Google Drive application, a Google Sheets checklist may be made by the teacher. Training on how to go about the checklist may be conducted by the teacher prior to assigning the template to students.

3.2　　On Google Classroom (see Figure 4), the teacher may post the checklist created on Google Sheets saved on Google Drive. The items that are included in the checklist are the items peers will give feedback on after reading their partner's essay. It may be posted as an "Assignment" and the option "Make a copy for each student" chosen.

3.3　　Once posted, the Google Sheets should be available for students to access and work on. A deadline may be set for filling in the items on the checklist.

Step 4. Filling in of peer feedback checklist and sharing with peer
Tech Tools:　Chromebook/BYOD, Google Drive, Google Classroom, Google Docs,
　　　　　　Google Sheets, Internet/WiFi connectivity

Figure 5
　Filling in of peer feedback checklist and sharing with peer
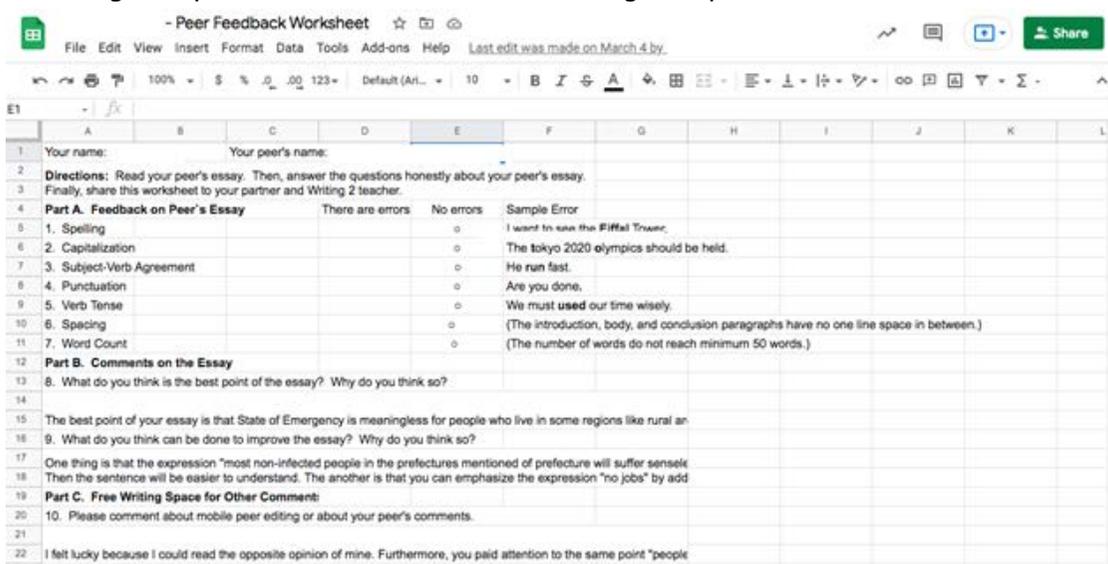
4.1　　The "Shared with me" folder on Google Drive of students should contain the Google Docs of their peers. Students may be instructed to check this folder every time they need access to the document to read their peer's essay.

4.2　　Students may be instructed to read their peer's essay carefully and fill in the peer feedback worksheet (see Figure 5) with their comments.

4.3　　As was done with the Google Docs file, the Google Sheets may be shared with their peer once the checklist has been thoroughly accomplished.

Step 5. Reading of peer feedback on Google Sheets checklist to improve Google Docs essay
Tech Tools: Chromebook/BYOD, Google Drive, Google Classroom, Google Docs,
　　　　　　Google Sheets, Internet/WiFi connectivity

5.1 Students may be advised to read their peer's feedback on the Google Sheets checklist.

5.2 Students may decide which comments to use as they work on revising their essay.

5.3 The final revision may be evaluated and marked by the teacher before returning such to students using the Google Classroom Assignment function.

The enumerated steps may be thoroughly followed or may be adapted depending on the logistics availability in the writing classroom such as hardware devices. In the absence of a computing device such as Chromebook or PC, students may bring their own smartphone, tablet PC, or phablet PC (Bring Your Own Device).

Results

Effectiveness of peer feedback
Out of 232 yielded responses to the statement, "Peer feedback helped me improve my essay," 103 or 44.4% showed "Agree" and 36 or 15.5% reflected "Strongly Agree." The two indicators combined constituted 59.9% of respondents. Figure 6 illustrates these results.

Figure 6
Student perception on the effectiveness of peer feedback

1. Peer feedback helped me improve my essay.
232 responses

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree
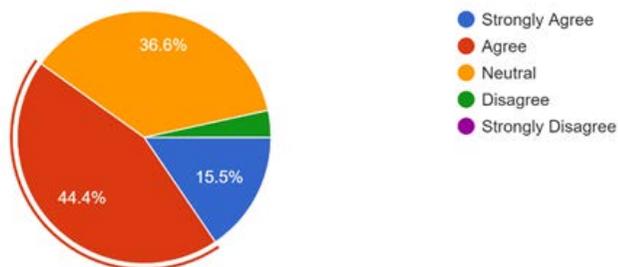
Appropriateness of Google Docs and Google Sheets
In response to the statement, "Google Docs and Google Sheets were appropriate for giving and using peer feedback," 51.7% or 120 students selected "Agree." An additional 21 students or 9.1% selected "Strongly Agree" in response to the same question. Combined, the figure is 60.8% of the total 232 respondents. Figure 7 provides a visual representation of this data.

Figure 7

Student perception on the aptness of Google Docs and Google Sheets for peer feedback

6. Google Docs and Google Sheets were appropriate for giving and using peer feedback.

232 responses
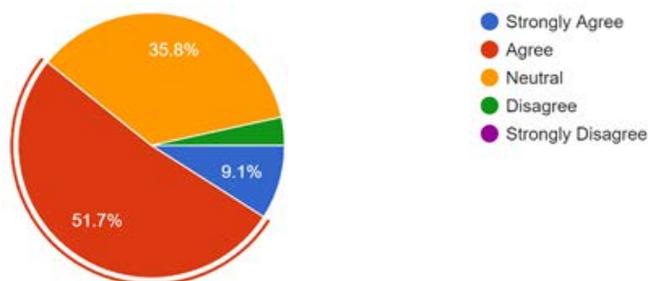
Changes in students' perspectives

Students' perspectives on doing peer feedback differed after the conduct of the trialling study, as reflected in Table 2. In response to the statement, "I like to read my classmates' writing," pre-study responses produced a mean of 3.47 (SD=1.04). Post-study responses generated a mean of 4.06 (SD=0.98).

To the statement, "I think my classmates should mark my writing assignments," a mean of 3.22 (SD=1.19) was generated in the pre-study. The mean in the post-study survey yielded 3.35 (SD=0.80).

In the pre-study survey questionnaire, an initial mean of 3.36 (SD=0.9) was recorded in response to the statement, "I would like to get feedback from my classmates about my writing." The post-study survey yielded a mean of 3.92 (SD=0.71) in response to the same statement.

A mean of 3.4 (SD=0.87) was noted in the pre-study survey for the statement, "I think I can give honest feedback to my classmates about their writing." The post-study questionnaire tallied a mean of 4.1 (SD=0.52) as an overall response to the same statement.

Table 2

Pre- and post-study student perceptions on peer feedback

| n=232 | Pre-Study | | Post-Study | | M Difference |
| Statements on peer feedback perceptions | | | | | (Post-study M) minus (Pre-Study M) |
	M	SD	M	SD	
I like to read my classmates' writing.	3.47	1.04	4.06	0.98	0.59
I think my classmates should mark my writing assignments.	3.22	1.19	3.35	0.80	0.13
I would like to get feedback from my classmates about my writing.	3.36	0.9	3.92	0.71	0.56
I think I can give honest feedback to my classmates about their writing.	3.4	0.87	4.1	0.52	0.7

Notes: Students responded using the following scale 5=Strongly agree, 4=Agree, 3=Neutral, 2=Disagree,1=Strongly disagree

Students' comments

On the Google Sheets-mediated peer feedback checklist, the following comments were written by students to aid their assigned peers in revising their essays. All comments were deliberately left unedited to maintain authenticity.

- "Spacing makes his essay better, I suggest doing this to him because it helps reading easier."
- "He should use more words. This essay is too short."
- "I thought it is good because it tells various opinions concretely."
- "His writing is so perfect that I don't think it needs to be fixed."
- "I think line breaks would make the essay better. This is because line breaks in every paragraph make it easier to read."
- "I think the same sentence at the beginning and end could be improved."
- "She is able to accurately state the basis of her opinions."
- "One is that you should leave a space between 'First,' and 'many.'"

Aside from the feedback provided to their assigned peers, students also wrote comments on the trialled peer feedback procedure. The following highlight comments on peer feedback were written by students in response to the last item on the Google Sheets checklist, "For any other comments or questions about peer editing, please write them all in the space below."

- "I would like to take more classes that utilize pair work."
- "I think it is good to do peer feedback because it gives us not only the skill of writing, but also the skills of reading and finding some mistakes reading my peer's essay."
- "I think peer feedback make us expand our thoughts."
- "Peer feedback is good because we can cooperate."

Device utilization

As part of the study, the freedom to "Bring Your Own Device" (BYOD) was allowed among students inside the classroom. To provide details on the use of particular hardware devices during the actual conduct of the peer feedback procedure, the question, "What device did you use for Google Docs and Google Sheets?" was enquired. In response, 70.7% responded that they made use of a Chromebook device; 13.4% utilized a smartphone; 12.2% used a combination of Chromebook and smartphone, and 3.7% brought a tablet PC (i.e. iPad) to class (see Figure 8). At the time of conduct of the study, school-issued Chromebooks were prescribed among students. The sole use of such Chromebooks was not required, thus students had the option of bringing their own device to school instead.

Figure 8

Device utilization of students in a BYOD classroom setting

1. What device did you use for Google Docs and Google Sheets?

- Chromebook
- Smartphone
- Tablet
- Chromebook and Smartphone
- Chromebook and Tablet
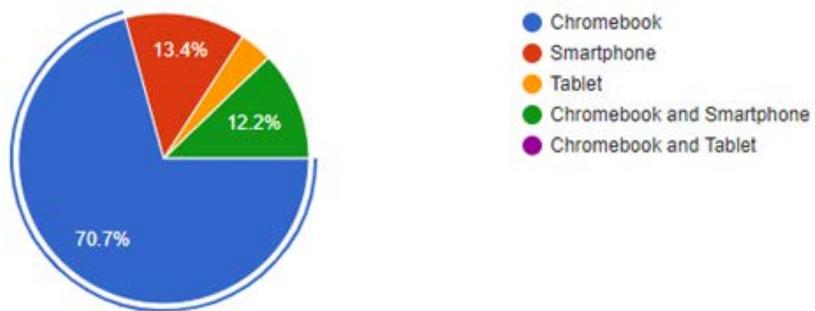
Discussion

Data gathered through Google Forms-aided questionnaires provide answers to the research questions as well as related findings of interest. Table 3 reorganizes relevant key figures.

Table 3

Student responses to statements on peer feedback and Google Docs and Sheets

n=232	Post-Study figures			
Statements on student perceptions	Strongly agree	Agree	M	SD
Peer feedback helped me improve my essay.	15.5%	44.4%	4.21	0.74
Google Docs and Google Sheets were appropriate for giving and using peer feedback.	9.1%	51.7%	4.13	0.86

Notes: Students responded using the following scale: 5=Strongly agree, 4=Agree, 3=Neutral, 2=Disagree, 1=Strongly disagree

First, a 59.9% resulting figure when respondents answered "Strongly Agree" and "Agree" to the first question, "How effective is the trialled peer feedback procedure?" indicates that the trialled peer feedback procedure was generally deemed effective (see Figure 6 for reference). To be specific, it was "moderately effective" (see Table 1 for reference) for 44.4% of the respondents. The mean of responses to the statement, "Peer feedback helped me improve my essay" (M=4.21, SD=0.74) indicates that the trialled peer feedback was deemed moderately to highly effective by most respondents, as reflected in Table 3. Similar findings were derived from an attitude survey conducted among freshmen returnee Japanese students (Hosack, 2005). Using pre- and post-anonymous peer feedback attitude survey questionnaires, Hosack discovered that respondents (n=13) exhibited an increased favorable view of peer feedback helpfulness. Such was reflected in their response to the statement, "My classmates' comments help me when I revise my writing." (Pre Survey M=4.08, SD=0.64; Post Survey M=4.31, SD=0.63). Another relevant study was conducted by Farrah (2012) among Palestinian undergraduate writing course students. In the investigation, an attitude survey questionnaire was fashioned to produce descriptive statistics among respondents' (n=78) attitudes towards a classroom-based peer feedback procedure. A key finding was derived from one of the statements in the survey, "The peer-review process was very helpful." (M=3.72, SD=0.979). This forms a triangulation of statistical data validating the positive impact of peer review among sophomore Japanese high school students (as in the present study); freshmen Japanese returnee university students (as in Hosack, 2005); and undergraduate Palestinian writing course students (as in Farrah, 2012). More so, it reflects similar tendencies for a small cohort (n=13, Hosack, 2005); medium cohort (n=78, Farrah, 2012); and large cohort (n=232, in the case of the current study) to view peer feedback favorably; whether when student peers were aware of the identity of their partner (as in Farrah, 2012, and in the current study) or when students were anonymously paired (as in Hosack, 2005).

Second, Google Docs and Google Sheets were viewed "moderately appropriate" (see Table 1 for reference) by 51.7% of respondents. Adding the figure of 9.1% who viewed the apps "highly appropriate" brings the total of those viewing the apps positively to 60.8% (see Figure 7 for reference). In response to the statement, "Google Docs and Google Sheets were appropriate for giving and using peer feedback," a mean of 4.13 (M=4.13; SD=0.86) was derived, as appears in Table 3. The figure is indicative that a majority of respondents deemed Google Docs and Google Sheets as either moderately or highly appropriate for use when conducting peer feedback. This finding validates the usability of Google Docs in serving as a vehicle for writing feedback from other sources, aside from the commonplace teacher feedback. Such is the case reflected in a brief by Balu, et al (2018) on the Drive to Write Program, an initiative to integrate ICT into writing assignments in US public schools. In the program, teachers made use of Google Docs templates to assign their students writing tasks on Google Classroom. Then, teachers commented and gave students feedback using the highlight and comment function offered by Google Docs. As in the current study, Google Docs hosted the writing prompt, served as a writing sheet, and allowed for highlighting of perceived errors and two-way commenting (between assigned peers) via an in-document comment thread function.

However, further exploration is needed to validate the usability of Google Sheets in

serving as a vehicle to host writing peer feedback. In the present study, Google Sheets mainly hosted a real-time checklist for feedback peers to use as a reference for indicating error categories and encoding comments on their peer's work. Future research may dwell on Google Sheets' potentials for use when doing writing feedback in a different setting.

Third, all statements related to the general practice of doing peer feedback yielded significantly positive views from the respondents after the trialing procedure, as reflected in Table 2. Respondents expressed stronger desire to read their classmates' writing after the study (Pre Survey M=3.47, SD=1.04; Post Survey M=4.06, SD=0.98). Also, students viewed more positively the idea of allowing their classmates to mark their written works following the trialled procedure (Pre Survey M=3.22, SD=1.19; Post Survey M=3.35, SD=0.80). Likewise, respondents were more open to receiving feedback from their classmates after the study than before the conduct of it (Pre Survey M=3.36, SD=0.9; Post Survey M=3.92, SD=0.71). Lastly, students became more confident to provide their classmates with honest feedback as reflected in the post-study results (Pre Survey M=3.4, SD=0.87; Post Survey M=4.1, SD=0.52). These results answer the third research question. Indeed, there were changes in students' perspectives on doing peer feedback after the trialing study. Similar findings were discovered by Hosack (2005) as he explored freshmen Japanese returnee university students' (n=13) attitude towards anonymous peer feedback using pre- and post-study survey questionnaires. Students found it useful to read their classmates' work (Pre Survey M=4.38, SD=0.51; Post Survey M=4.62, SD=0.51). In addition, peers found it enjoyable to receive their classmates' comments on their writing (Pre Survey M=3.92, SD=0.56; Post Survey M=4.23, SD=0.6). These statistical descriptions are reflective of Japanese sophomore high school students' as well as freshmen university returnee students' subsequent willingness to allow peers to read their written drafts and read their peers' drafts in return, with the goal of exchanging feedback; whether they are aware of their peers' identity or not.

The sense of honesty in giving their classmates feedback was noted in the nature of peer feedback quality. Most of the comments were directly pointed at specific, local errors. However, there was also a sense of "enryo," a Japanese term which may be described as an emphatic orientation and hesitation of self-expression; which can be seen to protect [the audience's] negative face (Tao, 2014). Providing a "tempered" nature of feedback to peers may be observed in other cultures as well. In Botswana, for instance, the cultural notion of "botho" which translates to "compassion and caring," (Kasule & Lunga, 2010, p.68) may be noted. Similarly, the Thai notion of "Kreng Jai" or the concern for other people's feelings (Wanchid, 2015) exists.

As for the scope of peers' feedback, peers with high writing proficiency provided more mechanics-based, technical remarks such as on text organization, grammar, and the like. On the other hand, peers with low to mid writing proficiency provided general, global comments ranging from positive remarks on the assigned peer's ideas, plurality of reasons provided, variety and number of vocabulary words used, among others. Such findings validate Colpitts and Past's 2019 study while debunking the results emanating from that of Wang's 2015 investigation.

In a BYOD setting, the school-issued Chromebook device was a top preference among students (see Figure 8 for reference). This may be attributed to the fact that at the time of conduct of the present study, Chromebook use was prescribed and issued by the school,

as opposed to requiring each student to have their own. The second most widely used device was smartphone. This validates the tendency of students to turn to a notebook PC and smartphone when in a BYOD setting (Thomas, 2020). Interestingly, the third most utilized was a combination of Chromebook and smartphone. This may hint on the promising future of an eclectic BYOD learning environment. Finally, a tablet PC (i.e. iPad) was used by the least number of students when doing the peer feedback procedure.

Conclusion

The trialled peer feedback procedure in a high school EFL writing class explored how utilizing Google Workspace for Education applications namely Google Docs and Google Sheets and conducted in a Bring Your Own Device (BYOD) environment has shaped students' perspectives on allowing an assigned peer to critique their written drafts and to provide critique in return.

An action research method was adapted to facilitate the reflective implementation of the classroom-based workshop. Pre- and post-workshop student survey questionnaires served as data gathering tools together with teacher field observation notes. Descriptive statistics were tabulated to aid in the scholarly interpretation of collected information.

The trialled peer feedback procedure was found to be moderately effective. Using Google Docs and Google Sheets as a medium for the peer feedback procedure was deemed moderately appropriate. After undergoing the trialled peer feedback workshop, respondents were: more inclined towards reading their classmates' writing; more open to having their classmates read their own written works; more willing to receive comments from their classmates regarding their written drafts, and had more confidence in themselves that they could provide their classmates honest feedback on their essays.

The positive perception of peer writers towards providing and receiving feedback was triangulated: in the case of a large cohort of Japanese high school EFL students; a medium cohort of Palestinian undergraduate writing course students; and a small cohort of Japanese freshmen university students who were partnered anonymously for feedback exchange.

Google Docs was proven moderately appropriate for use when doing peer feedback in a high school EFL setting. This adds to the usability of Google Docs as it was also tapped to host teacher feedback to students' written assignments in US schools through the Drive to Write initiative. Another Google Workspace for Education application used in the current study, Google Sheets, is open to a lot of possibilities for writing feedback usability in future scholarly inquiry.

Both large and small cohorts of Japanese writing feedback peers regarded more positively exchanging written works with their classmates whether they were made aware of the reader's identity or not, for the purpose of providing and receiving feedback, after undergoing a peer feedback procedure.

Japanese, Thai, and Tsawana writing feedback peers tend to moderate their comments on their partner's written works as an apparent sign of their respective societies' cultural notions transcending influence to education. Such is evident as peers show temperance when providing critique in an effort to avoid embarrassing the writing partner.

Peers with high writing proficiency provided more technical, detailed corrections aimed towards local errors on their partner's works; whereas peers with low to mid writing proficiency supplied more general, impressionistic comments to their feedback partners.

When in a BYOD high school EFL writing classroom, student writers were inclined to use Chromebook most often. The next most frequently used device was the smartphone. Using a Chromebook and smartphone in combination was the third most frequently utilized. Using a tablet PC such as an iPad was the least frequent choice.

Limitations of the study include using solely opinion-editorial (op-ed) text types as materials for students to write and provide peer feedback on. Future researchers may consider investigating whether other text types such as narrative, descriptive and other expository text types could be used to provide peer feedback on and whether such would yield similar results.

An offshoot of a peer feedback procedure that may be considered for separate and further inquiry may be the nature and form of sentences and phrases used by peers when pointing out errors, offering corrections, agreeing or disagreeing on certain points, and other statements.

References

Ambrose, R. M., & Palpanathan, S. (2017). Investigating the effectiveness of Computer-Assisted Language Learning (CALL) using Google Documents in enhancing writing – A study on Senior 1 students in a Chinese independent high school. *IAFOR Journal of Language Learning, 3*(2), 85–112.

Balu, R., Alterman, E., Haider, Z., & Quinn, K. (2018). Student writing, teacher feedback, and working online: Launching the Drive to Write Program. [Article, MDRC]. ERIC Online Database. **https://eric.ed.gov/?id=ED579998**

Colpitts, B. D. F., & Past, T. H. (2019). A comparison of computer-mediated peer corrective feedback between high and low-proficiency learners in a Japanese EFL writing classroom. *The JALT CALL Journal 2019: Forum, 15*(2), 23–39.

Deni, A. R. M., & Zainal, Z. I. (2011). Peer-editing practice in the writing classroom: Benefits and drawbacks. *Advances in Language and Literary Studies, 2*(1), 92–107. **https://doi.org/10.7575/aiac.alls.v.2n.1p.92**

Farrah, M. A. A. (2012). The impact of peer feedback on improving the writing skills among Hebron University students. [Article, An-Najah Univ. J. Res. (Humanities). Vol. 26 (1), 2012.]. Research Gate. **https://www.researchgate.net/publication/257138717**

Horita, T. (2021, February 16). *Prospects for school education beyond the "GIGA School Concept."* [PowerPoint slides]. National Institute for Educational Policy Research International Symposium on Educational Reform 2020. **https://www.nier.go.jp/06_jigyou/symposium/sympo_r02_02/pdf/20210224-doc13eng.pdf**

Hosack, I. (2005). The effects of anonymous feedback on Japanese university students' attitudes towards peer review. *Compilation Commemorating the Retirement of Professor Yamamoto Iwao – Language and Related Issues (3)*. Research Map Japan. **https://researchmap.jp/read0059542**

Kasule, D., & Lunga, V. B. (2010). Attitudes of Second Language students towards self-editing their own written texts. *Reading and Writing, 1*(1), 61–72.

Kihara, T. (2021). The light and shadow brought to teacher education by digitizing the educational environment: The case of Japan. *Educ. Sci., 2021* (11), 399–415. **https://doi.org/10.3390/educsci11080399**

Tao, L. (2014). Evaluating the concept of 'Face' (mentsu) in Japanese verbal communication. *Intercultural Communication Studies, XXIII* (1), 112–124.

Thomas, S. (2020). Student's evaluation of a classroom Bring-Your-Own-Device (BYOD) policy. *JALT CALL Journal, 16*(1), 29–49. **https://doi.org/10.29140/jaltcall.v16n1.208**

Vygotsky, L. (1978). *Mind in society: Development of higher psychological processes* (Cole, M., John-Steiner, V., Scribner, S., & Souberman, E., Eds.). Harvard University Press. **https://doi.org/10.2307/j.ctvjf9vz4**

Wallace, M. J. (1998). *Action research for language teachers*. Cambridge University Press.

Wanchid, R. (2015). Different sequences of feedback types: Effectiveness, attitudes, and preferences. *PASAA 50*(n.d.), 31–64.

Wang, W. (2015). How proficiency-pairing affects students' peer-mediated revisions of EFL writing: Three case studies. *English Language Teaching, 8*(5), 22–32. Canadian Center of Science and Education. **https://doi.org/10.5539/elt.v8n5p22**

Yuce, E., & Ataç, A. B. (2019). Peer editing as a way of developing ELT students' writing skills: An action research. *Journal of Language and Linguistic Studies, 15*(4), 1226–1235. **https://doi.org/10.17263/jlls.668377**

Author's bio

Alvin Santos has been a TESOL-certified ESL/EFL professional for fifteen years. He holds teaching licenses in the Philippines and Japan. He took up Masters in Teaching Reading. Currently, he teaches foreign language and proficiency tests preparation courses at Meiho Junior and Senior High School. He researches on writing and technology pedagogy.