

Article

Integrating Critical Thinking in Online Language Tasks: Considerations for an Academic Writing Class

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Abstract

The current Covid-19 pandemic has forced many language classes to shift online. The shift needs to be carried out carefully to avoid jeopardizing the quality of the lessons. This paper showcases online tools that are used to support an academic writing module taught at the National University of Singapore. These tools are Zoom, Microsoft Office 365, and LumiNUS, the university's internal Learning Management System (LMS). These tools are selected because of their accessibility and familiarity. More importantly, they support critical thinking tasks in the academic writing module. These tasks are (1) identifying sentence functions in a paragraph; (2) identifying sentence functions in relation to verbs; and (3) answering a grammar quiz. The tasks are completed either synchronously or asynchronously. Lastly, this paper presents recommendations for ELT instructors and EAP students, as well as suggestions for the use of online tools and curriculum development.

Keywords

Grammar tasks, academic writing, critical thinking

1 Introduction

This paper demonstrates how three tasks are conducted in distance mode, after face-to-face classes shifted online because of the Covid-19 pandemic. These three tasks are part of a graduate-level writing module. The paper first discusses critical thinking in academic writing, which is a learning objective for the module. It then shows how critical thinking is supported using the three tasks in a typical face-to-face setting. Next, the paper uses the three tasks to show how critical thinking may be supported in an online learning environment with *Zoom*, *Microsoft Office 365*, and *LumiNUS*, the university's internal Learning Management System (LMS). On the basis of the experience from managing these online tasks, suggestions for supporting critical thinking online are presented.

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2 Supporting Critical Thinking in Academic Writing

Critical thinking is deemed fundamental in all university courses, including academic writing courses. In academic writing, students need to demonstrate critical thinking by evaluating sources, constructing arguments, and synthesizing ideas from scholarly works (Pally, 1997). These skills reflect students' understanding of content, but they also illustrate their ability to present ideas according to academic conventions. However, expecting students' whose proficiency is still developing to reflect critical thinking in the way they write may be unrealistic. Furthermore, their unfamiliarity with rhetorical styles or writing conventions could cause an instructor to think that they do not have critical thinking skills (McKinley, 2013). The problem is exacerbated when language instructors adopt a prescriptive teaching approach, and rely on explicit writing conventions to account for critical thinking, instead of evaluating the manner in which the whole text negotiates and (re)constructs meaning (Andrews 2007; Atkinson, 1997). To support critical thinking in academic writing, instructors should consider using a descriptive teaching approach. Descriptive teaching is an inductive approach where students examine a text or example to find rules that may be generalized. In academic writing, this can be done by getting students to think about grammar rules seen in an academic text. Through a descriptive approach, students can *notice* a grammar form used in context, and apply it with an instructor's guidance (Flowerdew, 2016, 2020). When this approach is used over a period of time, it can raise students' awareness of text construction, which may also contribute to writing accuracy.

3 The Teaching Context

As mentioned, this paper discusses three tasks from a graduate-level academic writing module. This module is offered by the Centre for English Language Communication (CELC), National University of Singapore (NUS). The module typically runs twice a week for an hour and forty-five minutes, over a 13 week-semester. It employs a descriptive pedagogical approach, where students are guided to notice academic writing forms or features. At the point of writing, the author has taught the module for five consecutive semesters. In what follows, what happened in the last semester is described, with some context.

3.1 Face-to-Face mode during normal times

The design of tasks over the semesters was mostly similar, with minor changes every semester to accommodate the fluctuating number of students or to replace older readings with newer ones. The three tasks described in this paper had been carried in face-to-face lessons in the past. These are explained below:

3.1.1 *Identifying sentence functions in a paragraph*

The first task involved identifying sentence functions in a paragraph using a 'whole class' approach. The instructor projected a paragraph or a list of sentences on the screen, and students read what was on the screen to determine the function of each sentence. Students volunteered or were asked to present their answers. The instructor then asked students to explain their answers. This could take some time, and not all students were able to explain their answers. After students had presented their answers, the instructor pointed out other pertinent writing features found in the sentences. Features that were frequently pointed out were prepositional phrases and simple syntax structure. Subsequently, the instructor invited the students to identify them in their own readings from other modules. The instructor then went around the class to see whether they found similar features, or if they could correctly identify these features.

3.1.2 Identifying sentence functions in relation to verbs

The second task was a series of reiterations of the first, again using a whole-class approach. Throughout the semester, the first task was typically reiterated at least two or three times. In subsequent reiterations, tasks were modified either by situating the tasks in a new reading or by making them more complex. Each subsequent iteration of the task included more critical thinking elements. For example, the task of identifying the function of a sentence was expanded by requiring students to identify the verb in the sentence that supports that function. The instructor projected a paragraph or a list of sentences on the screen, and students had to read the sentences, determine the function of each sentence, and link the function to the relevant verb in the sentence. Students volunteered or be asked by the instructor to respond. Correct responses were acknowledged and incorrect responses were used for further discussion with the rest of the class.

3.1.3 Answering a grammar quiz

Grammar quizzes were a common mode of assessment in this module. The quizzes were done on the university's LMS LumiNUS and was an online component of the module even during normal times. The main reasons were: (1) it was easy to manage the quiz in terms of the allowed attempts and the duration to complete the quiz; (2) the students' performance could be directly linked to results from other graded tasks; and (3) the students could revisit these quizzes at a later time to review their performance.

3.2 Online mode during the pandemic

The previous section describes how the three tasks were carried out in a face-to-face setting in previous semesters during normal times. This section describes the three tasks in an online setting during semester when the pandemic hit us (the first half of 2020). It should be noted that the module during this period did not start with online learning. It was only after the fourth week of the semester (roughly one third) that the module shifted online in response to the need for physical distancing. February 17, 2020 was the first lesson conducted online. Before shifting online, the instructor spent some time familiarizing students with three online tools mentioned earlier: Zoom, Microsoft Office 365, and LumiNUS. All these tools are accessible to NUS teaching staff and students. Aside from accessibility, these tools are also easy to use and functional. They are easy to use because they share similar functions with other online tools that students are familiar with. For example, Microsoft Office 365 is similar to Google Drive, in that they are built with programs such as Word, PowerPoint, Excel, and Forms. The programs are also functional; for instance, Zoom features text chat, polls, and annotation tools to be used with video-conferencing.

These online tools are supportive of critical thinking for academic writing. As discussed, students are engaged in critical thinking when they compare their knowledge of grammar with observations made in a text, which can be carried out in an online and interactive environment. In fact, learning grammar online can also improve accuracy in language use (Kılıçkaya, 2015). Furthermore, it may encourage students to use independent language learning strategies, such as looking for internet resources or to manage their own learning pace (Pinto-Llorente et al., 2017). Learning online through critical thinking tasks may also help students view grammar tasks favorably, and not as a tedious activity (Jean & Simard, 2011).

This next section showcases how the three tasks were performed online. Each task took about 20 to 30 minutes to complete.

3.2.1 Identifying sentence functions in a paragraph in an online and synchronous mode

Task 1 was part of a lesson that was done online and in real-time (synchronous). This lesson was carried out on Zoom. It started with a short lecture in which the instructor explained that sentences and

paragraphs have different functions. These functions contribute to an argument presented in a research paper. The functions, such as problematization, justification, report (of findings), and implications, were discussed. After the lecture, students were required to complete Task 1. The instructor then shared a link through Zoom's chat function to a Forms webpage, which is an application on Microsoft Office 365. On the webpage, there was a paragraph for students to examine (see figure 1). The paragraph referred to in the semester in question was taken from a published paper on tsunami detection technology. The paragraph has four sentences. Students had to identify the function of each of the four sentences. They could choose from four options for each sentence. For instance, if students read Sentence [1] correctly (see figure 1), they would know that its function is to present relevant variables that affect tsunami velocity measurement. The aim was to get students to notice that each sentence has a function. While the students performed Task 1, the instructor remained present through Zoom. Students' responses were recorded in real time. This meant that the instructor received students' responses immediately after they clicked 'submit' at the end of the task. After all the students had completed the task, the instructor shared his screen through Zoom to show the options that students selected. A screenshot of this is shown in figure 2. During this time, the instructor invited students to verbally explain their answer on Zoom. The instructor also asked students explain wrong answers. This interaction was important to the instructor because it showed that students were engaged in critical thinking when considering the correct and wrong options. It also helped the instructor decide what needed to be done in the next class. It should be noted, though, that it was difficult to get some students to contribute in the sharing session; the instructor had to invite individual students to share their opinions regarding the answers with the rest of the class.

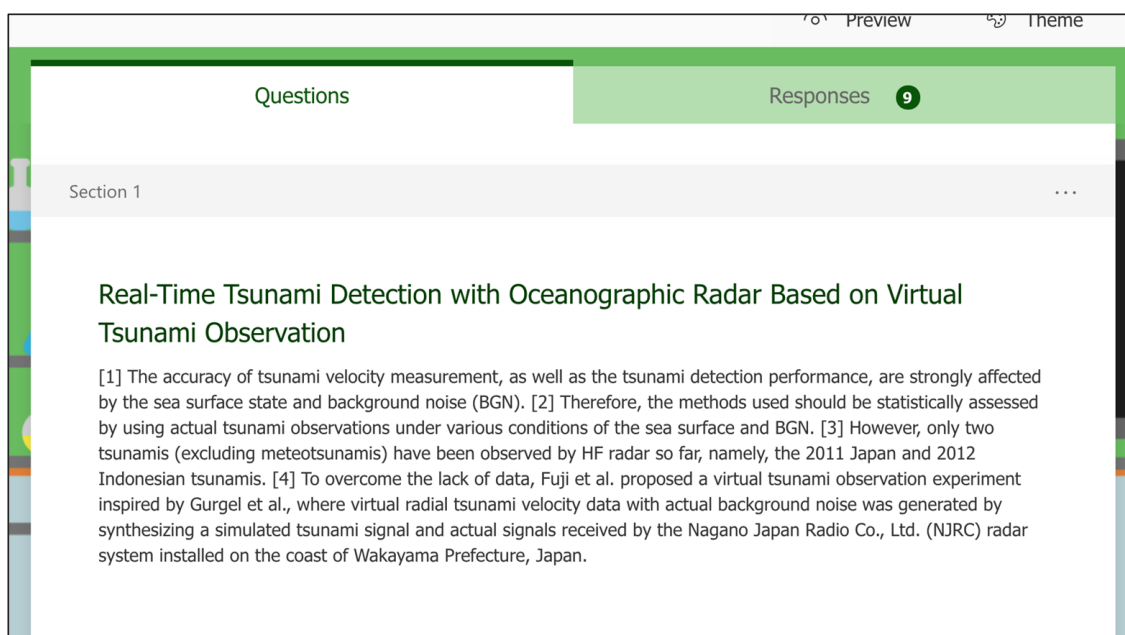


Figure 1. The paragraph for students to analyze

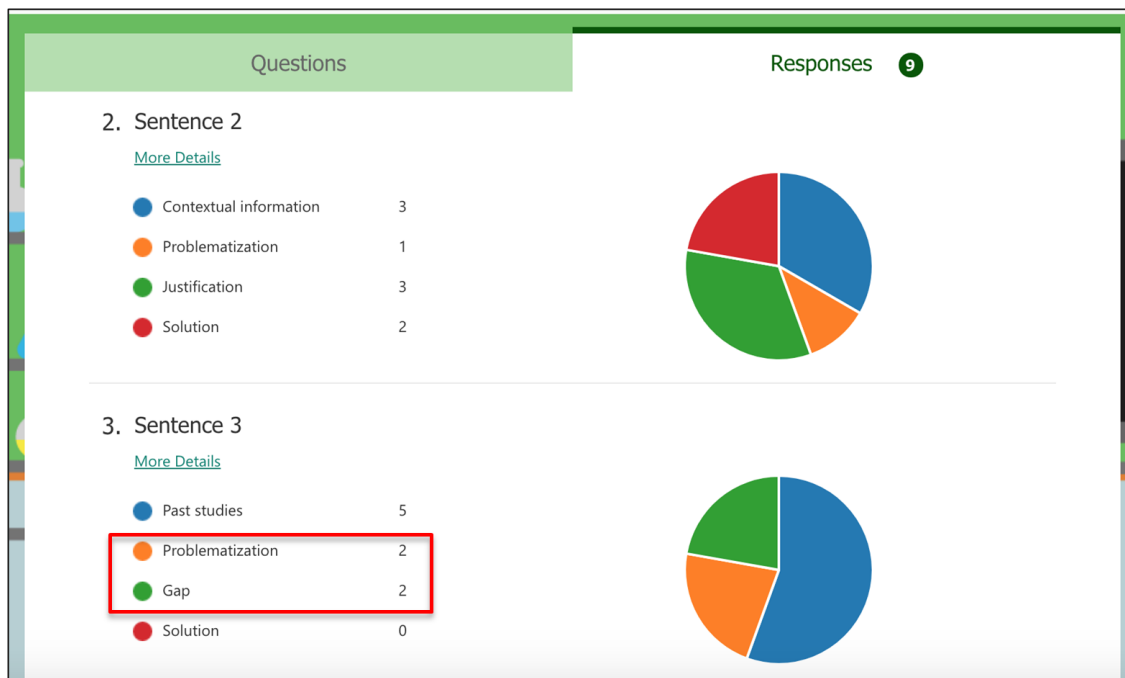


Figure 2. Students’ responses. Options with the same number marked by a red box

3.2.2 Identifying sentence functions in relation to verbs asynchronously

Once students were familiar with functions of sentences in a paragraph, they were asked to analyze functions together with grammar in Task 2. The task required students to identify the function of a sentence and the verb in the sentence that supports that function (see figure 3). It was a ‘take-home’ assignment. The paragraph was emailed to students as a Word Document through LumiNUS. Students were required to submit their answers using LumiNUS before the next lesson.

Section	Paragraph	Verbs	Sentence Function
Discussion	It is highly recommended that writing groups be embedded within doctoral education rather than an ad hoc approach to support doctoral writing (Starke-Meyerring, 2014). Embedding writing groups in coursework provides students with an opportunity to pilot various types and structures early in their doctoral studies to explore which are most helpful. As students transition into the dissertation phase, writing groups can be student-driven allowing students to be active agents within their research communities (Aitchison, 2014; Murphy et al., 2014). Student-driven writing groups can provide opportunities for engagement with a network of scholars consisting of both student peers, research faculty, and other researchers within their areas of interest.	1. Is 2. Should (invisible)	Claim/justification
		1. Provides 2. pilot 3. explore 4. are	Support
		1. can be 2. be	Support
		1. can provide	Support
	(4 sentences)		

Figure 3. Students’ identification of verbs: incorrect answers are marked by red boxes

In the semester in question, the paragraph for Task 2 came from a paper about academic writing experiences of doctoral students. This subject matter presented content relevant to student life. The sentences in Task 2 were highlighted in different colors. Students had to identify the function of each sentence and pick out the associated verb(s). The verb was underlined and written in the space provided, as is the function of the sentence. Figure 3 showcases a student’s sample work.

Interestingly, a persisting issue was found in this task. All students were unable to distinguish verbs from to-infinitives or gerunds. The red boxes in figure 3 illustrate this problem. Since this was a common issue, the instructor decided to address it in Task 3. If this task was done in a face-to-face setting, the

instructor would have addressed the problems immediately in class. This may be practical but it would not have supported the cognitive distance that students need to really notice correct or incorrect usage. Cognitive distance is the “degree to which an individual can access and use prior linguistic knowledge [that] is moderated by the (perceived) distance and closeness of the languages in the repertoire, recency of use and proficiency in the target and source language” (Schepens, 2014, as cited in Berthele & Udry, 2019, p. 3). In other words, the successful application of a language form or feature can be dependent on time elapsed since the form or feature was learned.

3.2.3 An online and asynchronous quiz

Task 3 was an online grammar quiz assessing what student had learned about verbs, to-infinitives and gerunds. The quiz was left online for 12 hours. Students were given a maximum of 15 minutes to complete this quiz. The quiz required students to answer true-or-false and multiple-choice questions. Even though the quiz used simple assessment methods, they could assess whether students could notice the difference between verbs, to-infinitives, and gerunds. The quiz ensured that critical thinking was applied by getting students to evaluate seemingly similar forms and to think about the reason for the use of a particular form. Figure 4 shows a quiz item which required students to choose the right verbs. Figure 5 shows a quiz item that asked for the reason a particular tense was used. After the quiz was completed, students could view their results along with the correct answers and preloaded explanation for some of the quiz items.

The quiz results indicated that there is evidence that online learning took place (figure 6). For

5. In this framework, they **suggest** two types of disruption: 'new market disruptions' which **involve(1) creating** a new market that **meets** a previously unmet demand, and 'low-end disruptions', which **involve(2)** new technologies **to exceed** the performance of currently **established** business models (Christensen & Raynor, 2003, pp. 4, 5).

In the statement above, the verbs are:
(1 mark)

suggest, involve, creating, meets, involve, established

involve, meets, involve, to exceed

suggest, involve, meets, involve

creating, to exceed, established

Figure 4. Quiz item #5 in Task 3 – question on to-infinitive marked by red box

7. These low completion rates are complemented by a lack of many of the opportunities and activities offered in traditional higher education models (e.g. labs, practical experiments, individual tutorials, peer support – Daniel et al., 2015), as well as lack of robust and comprehensive assessment (Gore, 2014).

In the statement above, why do you think the underlined verb is in the present tense?
(1 mark)

it represents a current understanding

it represents a past understanding

it represents a future understanding

the verb being in the present tense does not mean anything

Figure 5. Quiz item #7 in Task 3 – question on tense

example, nine out of the ten students answered question 5 correctly. The number of correct answers for Questions 2, 4, 6, 7, and 10 was also high. These questions asked students to determine the main verbs in complex sentences and the purpose of present tense verbs in sentences. However, there were three questions with >50% incorrect answers. These were questions 1 and 3. Questions 1 and 3 tested students' ability to determine the meaning of verbs based on their context. The high number of incorrect answers may be due to the context being long complex sentences.

It should be noted that there was no change in the delivery of the quiz in an online setting, as this was how quizzes were done in a face-to-face setting. However, in a face-to-face setting, time was allocated for students after the quiz to ask questions about their answers. In the online setup, the instructor did not revisit the quiz afterwards because explanations were given to the students online.

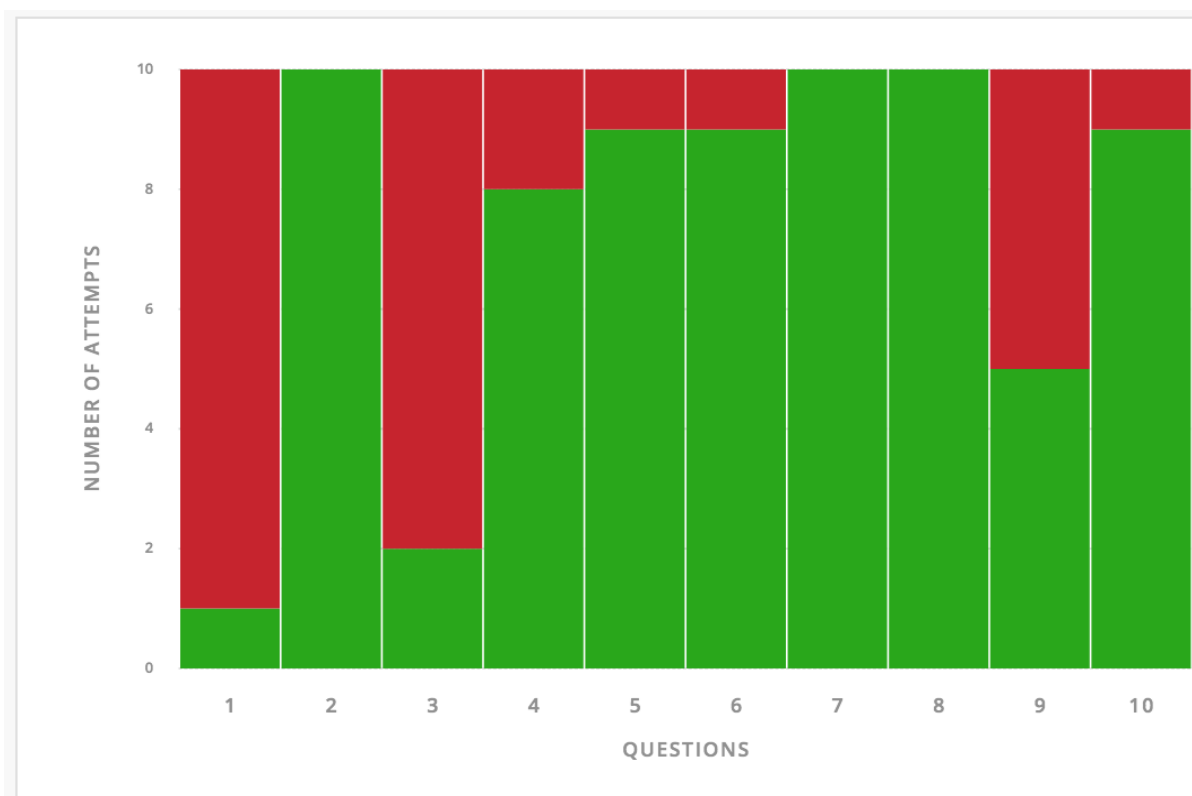


Figure 6. Students' quiz answers (green = correct response and red = incorrect response)

4 Outcome of Teaching Practice

This paper demonstrated three tasks used for grammar instruction in an academic writing module. These tasks were described in face-to-face and online settings (see summary in table 1). In all tasks, critical thinking was integrated in the form of noticing. In Task 1, students had to synchronously notice meaning from the content to determine the function of each sentence. In Task 2, a 'take-home', asynchronous task, students had to additionally identify the verb that supports the identified sentence function. When it appeared that students could not distinguish verbs from to-infinitives or gerunds, an online remedial lesson was organised. Task 3 was a quiz that assessed students' understanding of verbs. By the act of 'noticing', students had to correctly distinguish verbs from to-infinitives and gerunds and explain the use of verbs in relation to the meaning of a sentence. Collectively, these tasks provided opportunities for students to notice uses of language in academic texts. Throughout the semester, other tasks similar to those demonstrated in this paper were carried out, on the belief that 'noticing' exercises can lead to an awareness of grammatical rules.

Table 1.

Description of Teaching Practices in Different Settings

Task	Face-to-Face Teaching Practice	Online Teaching Practice
1. Identifying functions of sentences in paragraphs	Through a whole class approach, sentences from a paragraph would be examined together. The instructor would call for volunteers to explain the function of each sentence in the paragraph. Students' explanation would be used for further discussion.	Through Forms on Microsoft Office 365, a paragraph was presented to students for analysis. Each sentence in the paragraph has a distinct function. Students stated what they thought the function is and explained their answer verbally or using Zoom's chat function (written mode).
2. Identifying functions of sentences in relation to verbs	Through a whole class approach, sentences from a new paragraph would be examined together. This iteration of the previous task would be situated in a new reading or with more complex questions.	A different paragraph was given to students through LumiNUS. They had to identify the function of each sentence <i>and</i> the verb in that sentence that supports the function. They had to upload their work on LumiNUS.
3. Answering a grammar quiz	On LumiNUS, students took a quiz to assess their knowledge of language forms or writing features. Students' performance would be used for discussion in a subsequent lesson.	On LumiNUS, students took a quiz to assess their knowledge of verbs. After completing the quiz, students could review their answers with explanation that had been preloaded into the quiz.

5 Suggestions for Online Grammar and Writing Instruction

My experience tells me that when developing online grammar tasks, it would be very helpful if the instructor could create ample opportunities for students to notice particular writing features. This can be achieved by taking a descriptive approach for grammar instruction, such as asking students to analyze or evaluate the correctness of language use in an academic text. The observation made in this study is consistent with the findings of some other authors. For instance, Loo (2015) found that consistent noticing of various types of errors can lead to improved accuracy in new writing tasks. While this promotes an awareness for correct language use, it may also support students' awareness of teaching and learning strategies. In academic writing, being aware of such a strategy is important as it guides students in processing feedback given by their instructor. For example, if a student is not aware that instructor feedback may require revision (or any other action) on the student's part, improvement might be hampered (Loo, 2020).

On the basis of the discussing of these three tasks and implications, here are some recommendations for other ELT practitioners to consider when shifting their lessons online:

Tools and Curriculum

- To support critical thinking, online tools need not be the most sophisticated, but they should be those that encourage engagement by instructors and students. Instructors and students should be comfortable and knowledgeable of the use of the tools they use.

- To support critical thinking development, several related tasks may be required, with one leading progressively to the next. A series of related tasks can support learning continuity, which is needed to develop student awareness of grammatical features over a period.
- To maintain instructor presence, tasks need to be created with instructor feedback in mind. This is especially relevant to asynchronous tasks (like Task 2, as discussed above). If the presence of an instructor is diminished, students might become unwilling to participate in the learning process.

Instructors

- To encourage critical thinking in an online grammar task, the instructor should still strive to create analytical opportunities for students. For instance, tasks can require students to provide explanation for their responses. This creates awareness of knowledge regarding language use.
- To ensure that students are engaged with the ‘new’ online class setup, the instructor should familiarize students with the online tools used and their features. I myself took time to show students how to use the different Zoom features, such as ‘break out rooms’ and the ‘whiteboard’. I showed students how to access the results of the quiz in LumiNUS. When students are familiar with these functions, they become more willing to engage with a task.
- To inspire confidence from students, the instructor needs to be confident with the use of online tools and seen to be in control.
- To maintain coherence, online tasks should be explicitly built on each other. This can make-up for the lack of immediacy associated with a physical classroom. This also calls for the provision of timely feedback.

Students

- To ensure that learning can take place, students need to be aware of their views regarding online learning, which includes not treating the online platform as a place to socialize with their peers.
- To sustain critical thinking through negotiation or construction of understanding, there needs to be a discussion about language forms or writing features under examination. Being able to discuss will help students gauge the extent of their language knowledge.

6 Final Thoughts

The activities presented in this paper can be readily replicated in other contexts when the need for an online grammar task arises. It shows how critical thinking activities can be adapted synchronously and asynchronously for online learning. It also illustrates how critical thinking is not supported through the use of a stand-alone tool, but through various tools for different analytical processes. It shows how critical thinking can be fostered using simple online activities such multiple-choice questions and video conferencing. These online activities are effective because they support particular pedagogical principles used for the deconstruction of texts and rhetorical functions, and also adhere to classroom conventions which are familiar to both the instructor and the students.

References

- Andrews, R. (2007). Argumentation, critical thinking and the postgraduate dissertation. *Educational Review*, 59(1), 1-18.
- Atkinson, D. (1997). A critical approach to critical thinking in TESOL. *TESOL Quarterly*, 31(1), 71-94.

- Berthele, R., & Udry, I. (2019). Multilingual boost vs. cognitive abilities: testing two theories of multilingual language learning in a primary school context. *International Journal of Multilingualism*, 1-20.
- Flowerdew, L. (2016). A genre-inspired and lexico-grammatical approach for helping postgraduate students craft research grant proposals. *English for Specific Purposes*, 42, 1-12.
- Flowerdew, L. (2020). The Academic Literacies approach to scholarly writing: a view through the lens of the ESP/Genre approach. *Studies in Higher Education*, 45(3), 579-591.
- Jean, G., & Simard, D. (2011). Grammar teaching and learning in L2: Necessary, but boring?. *Foreign Language Annals*, 44(3), 467-494.
- Kılıçkaya, F. (2015). Computer-based grammar instruction in an EFL context: Improving the effectiveness of teaching adverbial clauses. *Computer Assisted Language Learning*, 28(4), 325-340.
- Lee, C. (2016). Second language learners' self-perceived roles and participation in face-to-face english writing consultations. *System*, 63, 51-64.
- Loo, D. B. (2015). Problematising unfocused written feedback: A case study on four university students' essays. *Issues in Language Studies*, 4(1), 62-74.
- Loo, D. B. (2020). Is language awareness supported by grammar lessons, indirect and metalinguistic feedback? An examination of graduate students' writing across drafts. *rEFLections*, 27(1), 1-21.
- McKinley, J. (2013). Displaying critical thinking in EFL academic writing: A discussion of Japanese to English contrastive rhetoric. *RELC Journal*, 44(2), 195-208.
- Pally, M. (1997). Critical thinking in ESL: An argument for sustained content. *Journal of Second Language Writing*, 6(3), 293-311.
- Pinto-Llorente, A. M., Sánchez-Gómez, M. C., García-Peñalvo, F. J., & Casillas-Martin, S. (2017). Students' perceptions and attitudes towards asynchronous technological tools in blended-learning training to improve grammatical competence in English as a second language. *Computers in Human Behavior*, 72, 632-643.
- Schepens, J. (2014). Bridging linguistic gaps: The effects of linguistic distance on the adult learnability of Dutch as an additional language (Unpublished doctoral dissertation). Utrecht: Utrecht University.

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