

## Exploring the blended learning design for argumentative writing

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### Abstract

*The importance of argumentative writing has long been recognized. However, many foreign language learners struggle to make effective argumentation and use appropriate language in argumentative writing. In this study, we proposed a blended learning design to address students' problems with argumentation and language use in argumentative writing simultaneously. The design consisted of offline collaborative argumentation tasks and online collaborative writing tasks. Drawing on a focal group of seven students, we examined the online and offline experiences of the focal group by analyzing classroom discussions, different versions of online writing products, and interviews with the students. Our findings indicate that the offline collaborative argumentation tasks enabled students to have thorough discussions and make in-depth arguments, and that the online collaborative writing tasks helped students deal with their language problems in writing and internalize the language for argumentative writing. Overall, students expressed positive attitudes toward the blended design. The findings provide implications for future research designing blended courses on argumentative writing and beyond.*

**Keywords:** *Blended Language Learning Design, Argumentative Writing, Collaborative Writing, Collaborative Argumentation*

**Language(s) Learned in This Study:** *English*

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### Introduction

Argumentation and language use are two major challenges in argumentative writing for ESL students. Argumentation is the process of making claims and using evidence and reasoning to support the claims. Good argumentation is the prerequisite of persuasion in writing (Driver, Newton, & Osborne, 2000). However, many students struggle with making well-developed arguments due to inadequate training. Moreover, language difficulties, such as inability to distinguish oral and written language, and challenges in using cohesive devices, tend to exacerbate ESL learners' problems in argumentative writing (Liu & Braine, 2005). To address the problem of argumentation, researchers have adopted a collaborative reasoning approach to facilitate extensive negotiation of arguments through social interaction (e.g., Reznitskaya et al., 2001; Wagner, Ossa Parra, & Proctor, 2017). To improve the language of argumentative writing, researchers have taken advantage of online technologies to encourage peer feedback or revision (e.g. Li & Zhu, 2017). However, these pedagogical designs are not well equipped to solve the problems of argumentation and language at the same time. To solve both problems, this study proposed a blended learning design for argumentative writing, in which offline collaborative argumentation and online collaborative writing were combined to enable learners to make in-depth arguments through exchange and negotiation of different ideas, and to improve language use in argumentative writing through collaborative contributions. As the first step toward developing an effective design of blended learning for argumentative writing, the present study drew on a focal group of seven undergraduate students to closely trace their offline and online practices, as well as their perceptions of this blended learning approach.

## Literature Review

### Argumentative Writing and Blended Learning

Argumentative writing is the process of supporting and negotiating arguments in written form (Ferretti, Lewis, & Andrews-Weckerly, 2004). Toulmin's (2003) argumentation model is hitherto the most influential theoretical system with regards to the core elements of an argument. Toulmin (2003) divides argument components into claim, data, warrant, backing, rebuttal, and qualifier. Based on this model, scholars have proposed various models of argumentation. For instance, Osborne, Erduran, and Simon (2004) trimmed the argument components down to claim, data, and warrant. McNeill and Krajcik (2009) simplified the model into claim, evidence, and reasoning. This simplified model has proved to be particularly useful for argumentative writing standards (e.g., in Common Core State Standards for ELA/Literacy). In the current study, McNeill and Krajcik's (2009) framework served as guidelines for students' offline discussions, online writings, and peer feedback.

Meanwhile, with the advent of the Web 2.0 era, blended learning design has been incorporated in argumentative writing instruction (Kessler, 2009; Williams & Beam, 2019). However, students might not be willing to challenge others' ideas (Lam, Hew, & Chui, 2018). Besides, students' inexperience in extended argumentative writing and unfamiliarity with digital tools might negatively influence the learning results (Howell, Butler, & Reinking, 2017). The results of these empirical studies point to a need for more research on the effective integration of traditional offline learning approaches and online technologies in argumentative writing instruction.

### Group Discussion for Argumentation

Students tend to struggle with argumentative writing because of their inadequate argumentation ability. One prominent approach to improving students' argumentation ability is collaborative reasoning or collaborative argumentation. Collaborative argumentation is the dialogical interaction or group discussion among several students over a certain issue in order to co-construct an argument (Evagorou & Osborne, 2013). Previous studies indicate that exchanging ideas with different people in group discussion can foster comprehensive elaboration of arguments (Reznitskaya et al., 2001; Wagner et al., 2017).

### Online Collaborative Writing for Language Use

Language is the most obvious challenge for ESL learners in English writing (Hyland, 2004). Various researchers have reported that online collaborative writing can improve the language in writing products. For instance, Mak and Coniam (2008) found that students tended to write longer, more coherently, and more accurately in the Wiki-based collaborative setting. In addition, some features of online tools, such as synchronous and asynchronous collaboration, and tracing of editing history, can facilitate collaborative editing and revision (Lam, Hew, & Chui, 2018). Equipped with these tools, students may pay more attention to language, and consequently make more revisions in the collaborative writing process.

Notwithstanding these benefits, online collaborative writing also poses some challenges. One challenge is possible unequal contributions to the writing product among a group of students (Mak & Coniam, 2008). Another challenge is that students are likely reluctant or unmotivated to revise others' work. Mak and Coniam (2008) explained in their study that students' disinclination to correct others' errors had to do with their reluctance to show disrespect to or embarrass others. To address these challenges, Yim and Warschauer (2017) suggested the employment of text mining tools in online collaborative writing projects to quantify and visualize the collaborative behaviors and processes.

## Research Questions

The present study aims at proposing an innovative course design for collaborative argumentative writing that can deal with the problems of argumentation and language use for ESL learners. Specifically, it addresses the following research questions:

1. How did the students collaboratively make arguments through group discussion?
2. How did the students collaboratively complete argumentative writing on the online platform?
3. What are students' perceptions of the blended learning design for argumentative writing?

## **Methodology**

### **Participants**

Seven students from the same group voluntarily participated in the current study from February to July, 2019. The students' enrollment into the class was based on their performance in the placement test administered by the university. They had been in the same group in this English class since the previous semester. They were familiar with the tasks of collaborative reading, classroom discussion, and outline-based impromptu presentation. However, before this course, they had neither been trained in argumentative writing nor participated blended collaborative writing tasks. Of the seven participants, two were male and five were female. Their consent to participate in the study was obtained and all names used in this paper are pseudonyms.

### **Technical Settings**

An online collaborative writing platform was used in this study. Students registered with the platform using their distinct group identity at the beginning of the semester. The platform consisted of three modules: the Collaborative Writing Module, Feedback System, and Teacher Center. In the Collaborative Writing Module, each group collaboratively created and revised their writing on a page, which resembled the interface of Word. All versions of their writing could be tracked on the platform. In the Feedback System, both peer feedback and machine feedback were given to each group. As for machine feedback, the platform incorporated a text mining tool that could automatically compute participation and progression indexes. The participation indexes included both the mean and standard deviation of each group member's contributions in terms of the number of words and lexical complexity; the progression indexes included text complexity changes of each group. As for peer feedback, each group voted for one best writing from other classes and uploaded the result to the platform. Then the platform automatically generated a recommendation list for each task. The Teacher Center was only accessible to the teachers for tracking and monitoring students' writing processes and products.

### **Course Design**

The current study drew on an academic English course from a university in China. The course adopted a blended learning design, which consisted of two main tasks, namely the offline collaborative argumentation task (Task 1) and the online collaborative writing task (Task 2). In Task 1, students first read individually articles to summarize the opinion(s) of the author(s). Then they discussed in groups to select one opinion of the article, decided on whether they agreed or disagreed with the author(s), and came up with supporting evidence and reasoning of their claim collaboratively. After finishing their discussion, one representative of each group would present their argumentation to the class based on an outline. In Task 2, students were asked to write an argumentative essay collaboratively online based on their classroom discussions. There were altogether four cases throughout the semester.

### **Data Collection and Analysis**

This study adopted a qualitative case study approach and collected multiple types of data, including group discussions, students' writings, and interviews with the students. All the offline group discussions were audio-recorded and then transcribed. Different versions of students' writing products on the online platform were also collected. Furthermore, three series of semi-structured interviews were conducted individually with the seven participants (Seidman, 2006). The first series of interviews at the beginning of the semester queried their prior experiences. In the second series of interviews, we used stimulated recall to probe into

some key issues in their offline discussions and online writings. In the third series of interviews at the end of the semester, participants were asked to reflect on and express their attitudes toward the blended design. In all, 420 minutes of audio from the interviews were collected and transcribed with the consent of the participants.

The data were coded following two steps. First, one coder pre-coded the transcripts of group discussions drawing on McNeill and Krajcik's (2009) categorization of argument components (see [Appendix A.](#)). A new category "language" was added in the coding scheme for online writing (see [Appendix B.](#)) to capture issues related to both argumentation and language. Then after finishing the trial coding, the coder discussed the results with the other two coders, which led to a revision and reorganization of the original coding schemes. Based on the new coding schemes, one coder coded all the data and the other two coders checked the accuracy of the coding results. Disagreement was resolved through discussion.

To address the first research question, we first analyzed the foci and processes in group discussions as well as interview transcripts related to their reflections or comments on the group discussions for triangulation. To deal with the second research question, all the editing histories on the online platform were analyzed. Interviews about their online writing practices were analyzed to get an in-depth understanding of how they completed collaborative writing online. To answer the third research question, the interview transcripts about students' perceptions of the blended learning design were compared with the students' performances in offline discussion and online writing.

## Findings

### Classroom Collaborative Argumentation

The analysis of group discussion revealed that students focused mainly on claim extraction, evidence discussion, and reasoning presentation (see [Appendix A.](#)). The construction of claim was a process of negotiation and evaluation. At the beginning of the discussion, students negotiated which opinion mentioned in the article to work on and whether they agreed or disagreed on it. After they reached an agreement, they went on to come up with their own claim. For example, the group discussion for Case 1 started as follows:

*Lily: I think his opinion is that fake news spread faster, and people are those to be blamed [author's claim]. Let's first discuss whether we agree or disagree with the author's opinion.*

*Sheldon: At the end of the article, the author also mentioned whether rumors have such great impact. Is that the author's opinion? [author's claim]*

*Lily: Nope. He only talked about "what can be done". Because he did not have clear stance about that, he only told us that he was not sure [author's claim]. And I think we can choose "agree with the author" [own claim].*

After working out evidence and reasoning, they re-considered their claim and evaluated whether their evidence and reasoning could match their claim. If not, they adjusted the original claim and slightly revised or retained the evidence or reasoning. In other words, the time they spent on discussing claims was to some extent determined by the difficulty of finding relevant evidence and reasons. In some cases, they spent more time due to their different understandings of the reading material. For example, in Case 4, students negotiated about their claim until the end of the discussion. Despite the protracted process of reaching a consensus, students learned from each other. As Wendy said, "they might reach a moment of 'epiphany' and suddenly realize that the article could also be understood in another way." Finally, students could agree on a specific claim that was clear and could be supported by relevant evidence and logical reasoning. They also developed a clearer understanding of what served best as a claim.

The second focus of their discussion was evidence. First, based on the claim they agreed on at the beginning of their discussion, they would produce some descriptions of the evidence, which served to ensure the

relevance of evidence. For instance, in Case 1, the students described what their evidence should be like before proposing concrete examples.

*Cindy: We could think of an example like, someone has done something, but he was wronged by the news reports, then... [evidence selection]*

The description of the potential evidence prompted them to search the news on the Internet. After they found a concrete example in accordance with the description, they discussed the details and made sure that their evidence was sufficient to support the claim. In the focal group, Lily was always the first one to come up with an example, while Sheldon, Conan, and Cindy evaluated and adjusted the evidence together. Their collaboration helped them find the appropriate evidence efficiently. However, because of the time constraint, the source of their evidence was usually from news on the Internet or from their prior knowledge and experience, rather than other more reliable sources like research reports.

The reasoning process—the third focus of the discussion—was intersected with the discussion of evidence. Students might have thought of certain reasons to support the claim before they decided on the evidence. In Case 3, for example, students discussed two reasons to justify their claim before coming up with an example. The reasons helped them to elaborate their statement about a certain issue and were conducive to the proposal of evidence. After they determined the evidence, they would analyze the examples and try to identify connections between their evidence and claim. The shift of focus from simple reasons to valid reasoning demonstrated their deepened understanding of the issue as well as the progress of their reasoning process. At the end of the discussion, students reorganized the whole reasoning process, and the restatement of the reasoning process helped each group member get a clear understanding of their argumentation and prepare for the impromptu speech.

To summarize, during the classroom discussion, students were exposed to different perspectives and contributed collaboratively to the argumentation—they refuted each other's opinions and did not proceed with the discussion in order. As such, students could put forward a general outline of their argument but they rarely had time to discuss the language of their argumentation.

### **Online Collaborative Writing**

Online collaborative writing was the process by which students collaboratively completed argumentative writing on the online platform without the constraints of time and space. Compared with the classroom discussion, online collaborative writing provided an opportunity for students to focus more on the language of their argumentative writing, which they normally neglected in class, as Lily pointed out in the interview.

The analysis of different versions of online writing also showed that the students focused primarily on language in the online writing (see [Appendix B](#)). The online collaborative writing improved participants' use of language. Most of the revisions centered on language problems in the text, especially the choice of words. Another prominent focus of revisions was cohesive devices. Linking words like *firstly*, *secondly*, and *but*, in the first several versions of writing were often substituted or supplemented with *first of all*, *furthermore*, and *nevertheless*. After several rounds of revisions, they consciously used a variety of linking words in the essay. Furthermore, the students spared no efforts to make their texts more complex and “less childish,” as observed by Yanni and “resemble academic papers,” as noted by Conan.

Through several rounds of revisions, the simple vocabulary was substituted with more advanced ones, and some simple clauses were combined and reorganized into complex clauses. As a result, the text complexity (TC) change index gradually increased (see the TC values on the ordinate axis in [Figure 1](#)). Another interesting finding related to word choice is that students changed such words as *the* in the previous versions into *our* to show their awareness of co-ownership of the argumentative writing. The trust in group members reflected in their co-ownership is crucial for successful collaborative writing (Kessler, Bikowski, & Boggs, 2012).

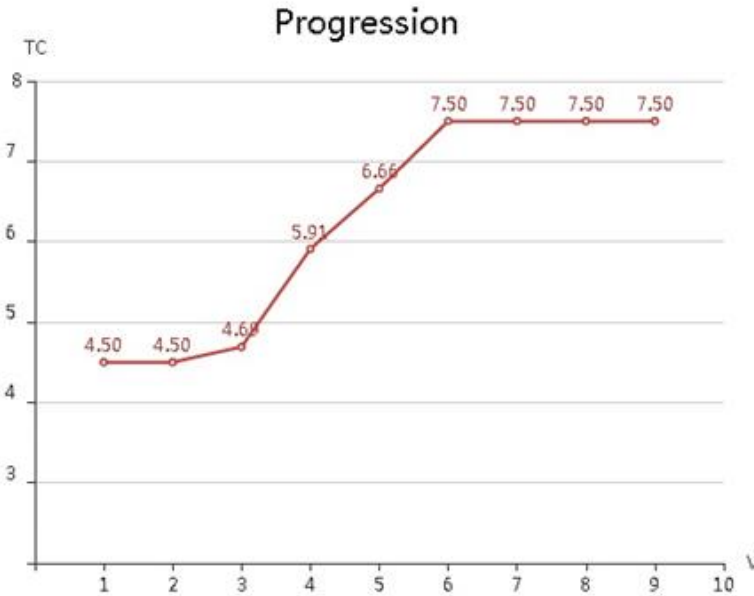


Figure 1. Complexity Change Index for Case 1

Most of the revisions on online writing concentrated on language use and no major revisions were found about argument components in Case 1, Case 3, or Case 4. Only a few revisions supplemented the reasoning of the previous version or added details of the evidence. For example, in Case 1, Cecilia added the reasoning part written by Lily.

*Second, the Internet platforms should check and screen the news before it publish and make some restraints on publishing false news [adding] to stop the spread of rumors and their serious impact on society.*

In this way, Cecilia made some connections between their statement and the claim, which showed the progressive reasoning of their argumentation. Unfortunately, such revisions were comparatively rare. This is not surprising given that argumentation had been determined in the classroom discussion and students did not have time to discuss their writing together after class. Therefore, overall, the online collaborative writing seemed more effective in solving the language problems in collaborative argumentative writing.

### Students' Perceptions of the Blended Learning Design

As a whole, the students held a positive attitude towards the blended learning design for argumentative writing, as evidenced by such expressions as “happy”, “helpful”, “interesting”, and “special” in students’ feedback. They expressed special appreciation for the offline collaborative argumentation task in that the task exposed them to different perspectives and helped them develop a more comprehensive understanding of the issue. Yanni, for example, noted in the interview:

*Sometimes even for the seemingly obvious opinion, people might have different interpretations. And we could communicate with each other to break our established ways of thinking.*

Moreover, students could learn from each other in the process and develop a more intimate relationship, which would in turn enhance their group consciousness. Sheldon explained what he had learned from group discussions.

*Sometimes, I have to admit, other students’ reasoning logic was better than mine. We can learn from each other, and this will also promote our relationship within a group.*

Nevertheless, one student experienced stress during the activities. Cecelia mentioned that the whole class

was fast-paced and mentally taxing. They had to write down the outline on the blackboard as soon as they finished discussion, and sometimes they did not have time to solve the problems they found in their argumentation.

Additionally, the participants offered their suggestions for improving the blended design. A major suggestion was to emphasize the importance of collaborative writing products. While students' contributions and text complexity changes of the writing products were calculated, students were not as motivated to participate in the online collaborative writing task as expected. Yanni mentioned that they might just forget to revise their writing without a reminder from the group leader. Moreover, Lily, Sheldon, and Conan observed that the collaborative writing results would not have much influence on their final score. Furthermore, two students hoped that the teacher could offer more instruction on argumentation.

## Discussion

### Perceived Benefits of Blended Learning Design for Argumentative Writing

Our results showed that the blended learning design was conducive to improving both students' argumentation and language use in argumentative writing. Specifically, offline collaborative argumentation was beneficial to solving students' problems with argumentation. First, students had to negotiate various ideas with each other to gradually reach an agreement. Such a negotiation process provided students with great opportunities to understand more about the way they stated their claim, selected evidence, and made connections between their examples and conclusions. This is in accordance with the findings of Reznitskaya et al. (2001). Second, the offline collaborative argumentation enabled students to learn from each other. For example, Lily was good at finding evidence, Sheldon excelled in finding rebuttal points, and Conan was adept at summarizing their claim clearly. They could draw on each other's strengths to compensate for their own weaknesses, which would finally foster their argumentation ability in general.

Online collaborative writing enabled students to polish their language in argumentative writing and improve their language ability in the process. First, students tended to focus on revising language problems in online writing because they did not want to revise too much or disrespect the original work of the first writer. Kuteeva (2011) also reported that students in Wiki-based writing focused more on grammatical and structural issues. In addition, rounds of revisions gradually enhanced students' language use. This is consistent with the findings of Sarré, Grosbois, and Brudermann (2019) that corrective feedback can promote learners' internalization of input into intake and accurate production. Finally, the use of *we* and *our* in lieu of *the* or *this* reflected their group awareness in the blended learning process, which has been acknowledged to be beneficial to the coherence of collaborative writing (Li & Zhu, 2017). To this end, the current blended learning design has great potential for addressing both the problem of argumentation and language in ESL learners' argumentative writing.

### Perceived Challenges for the Current Design and Implications for Future Research

The learners reported two main challenges related to the blended design for argumentative writing. For offline collaborative argumentation, the challenge was the limited time for discussion. Students might propose distinct ideas due to different understandings of the article, which posed a great challenge for them to reach an agreement on their claim. As a result, they seldom had enough time to search for supporting evidence from more reliable sources or conduct more detailed analysis of the reasoning. After class, they rarely had opportunities for discussion. So, students did not make many revisions related to argumentation in their collaborative writing. In addition, while some students suggested that teachers should offer more instruction on argumentation, it has been found very challenging for teachers to organize classroom argumentation (see Newell, Beach, Smith, & Van Der Heide, 2011). In this connection, Cho and MacArthur (2011) suggest that reviewing peer writing and giving feedback is more helpful than receiving feedback from an instructor.

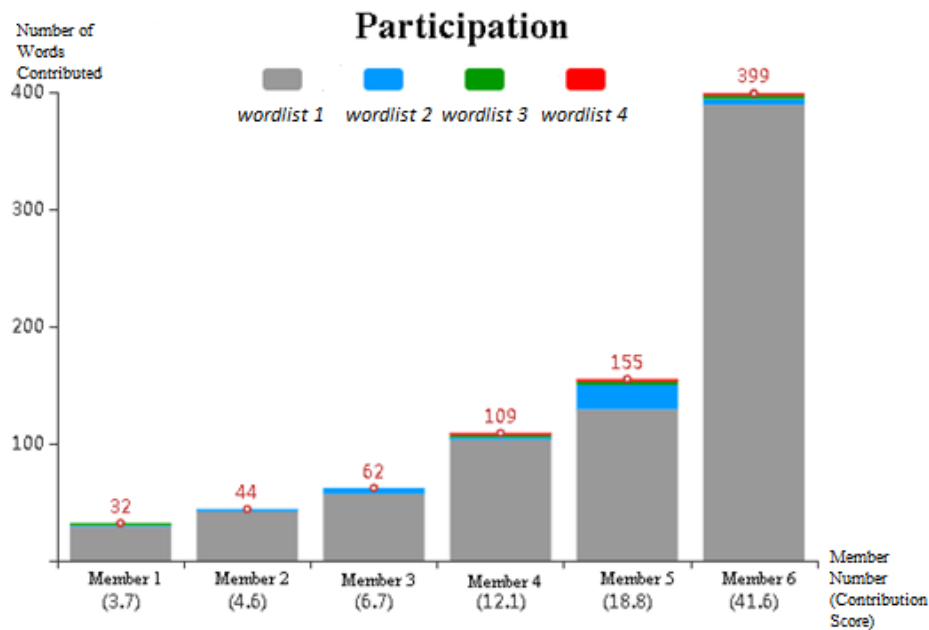


Figure 2. Participation Index for Case 1

Another challenge concerned online collaborative writing. The number of contributions made within a group was neither large nor equal (see Figure 2.). One explanation for this might be related to students' lukewarm attitude toward the course and the homework. Although contribution indexes were designed to motivate students within each group to make more and equal contributions to the writing, it turned out to be neglected by the students. Students occasionally forgot to edit—as shown in Figure 2, one student did not revise the writing in Case 1. They were also reluctant to revise carefully for fear that they had to do another round of revision. Another reason might be that they did not want to revise the content provided by other students, as doing so means showing disrespect to others' work. Consequently, the first drafter always contributed far more words than the other group members (see Figure 2). These patterns of contributions indicated that the students' co-ownership of their collaborative writing was still weak. Such lack of equality and mutuality in the revision process is detrimental to the writing quality (Li & Zhu, 2017).

Both the benefits and challenges found in the blended learning design for argumentative writing can yield insights into the design principles for argumentative writing instruction, as summarized below:

- First, in the selection of teaching materials, topics used for argumentation should be chosen based on pedagogical goals and students' interests, and texts with an explicit claim are preferred.
- Second, for the teaching method, a pre-writing discussion should provide opportunities for students to fully construct arguments; students should also be provided with enough time to revise the discussion results.
- Third, as for the students' concerns about revising others' work, teachers could assign different roles in collaborative writing, such as drafter, source user, language reviser, and content reviser to suggest students to focus more on the revision of argumentation.
- Fourth, regarding the feedback on collaborative writing, teachers might offer explicit instruction to solve learners' problems in argumentation. However, a more optimal option might be encouraging peer evaluations (Cho & MacArthur, 2011). Additionally, rewards for students' contributions to online collaborative writing can be considered to encourage the equality and mutuality of contributions within a group (Li & Zhu, 2017).



## Conclusion

The current study demonstrated that the blended learning design is conducive to improving ESL learners' argumentative writing by offering learners substantial opportunities to construct in-depth arguments in offline discussion and enabling the internalization of accurate language use through online collaborative writing. This study is an exploration of a possible pedagogical design for argumentative writing. Our findings suggest that future designs of argumentative writing instruction adopt a blended learning approach in order to deal with the problems of argumentation and language faced by students. However, the current study is only an exploration of the blended design, and the number of participants is relatively small. Future studies can further expand the research on argumentative writing. For example, research could involve more participants of diverse English language proficiency levels and education backgrounds to examine the affordances of blended learning design in more contexts. Future attempts could also investigate factors that may influence their collaboration in collaborative argumentation activities.

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## Appendix A. Argument Components and Codes

Argument Components	Code	Description	Example
Claim	Author's Claim	Discussion of the central arguable statement in the reading.	I think that his view is that false news spreads faster, and this should be blamed on people.
	Own Claim	Selection of an arguable statement of their own related to the reading.	Our opinion is that people are to blame, because it is the media, it is people that manipulated this event.

Evidence	Textual Evidence	Information provided by the reading text to support a claim.	The author said the non-mainstream ideas were to influence. Those people believe that global warming influence representatives of countries. However, this idea was proved wrong. Representatives were not influenced by global warming.
	Evidence Selection	The process of determining an evidence to support the claim.	We can think of an example like he has done something, but he was wronged by the news reports, then...
	Evidence Details	Elaboration of the selected evidence.	At first, according to the news reports, it was the female driver who drove in the reverse direction crashed into the bus. However, when the truth came to light, every media changed their statement immediately...
Reasoning	Reason Analysis	Analysis of the reasons that can be used to justify the claim or connections between the evidence and the conclusion.	In fact, the main reason is that fake news is more attractive, so the influence is more extensive.
	Reasoning Process	Discussion of how they present their argumentation to the audience.	I think the claim mentioned by Lily could be included in the reasoning part. Then we will have one major reason, and several minor reasons.

## Appendix B. Language Revisions and Codes

Codes	Description	Example
Word Choice	Substitution of one word or phrase with another or addition of one word or phrase without changing the original meaning.	However <u>Nevertheless</u> , according to...
Sentence Structure	Reorganization of sentence structure without changing the original meaning.	...We also should not be too subjective, and <u>avoid being too subjective</u> ...

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Cohesive Devices	Addition or change of linking words or sentences to improve the coherence of the essay.	...without a correct warrant. <u>However, to</u> To all people's surprise, the true reason...
Grammar	Revision of grammatical mistakes in the text.	As is conspicuous <u>conspicuously</u> showed in this essay...
Minor Addition or Deletion	Addition or deletion of words or phrases that only changes the emotional intensity of the expression rather than meaning.	...we <u>surprisingly</u> find that...

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