



The Use of Metadiscourse Markers in Mobile-Assisted Flipped Learning in L2 Writing

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The current study aims to investigate L2 students' writing performance in mobile-assisted flipped learning. The participants were 45 first-year university students in Seoul, Korea. They were enrolled in a 2-credit English course that met once a week for two hours. During one semester, the mobile-assisted flipped learning was implemented, and four-integrated language skills with focus on writing were taught. The participants' average seat time and scores were recorded in the mobile application to measure their participation. In total, 45 complete sets of second and the sixth assignments were collected and analyzed both quantitatively and qualitatively. For the quantitative results, two raters evaluated using ACTFL Proficiency Guidelines 2012. For the detailed text analysis including metadiscourse comparisons by participation level – high, moderate, low – were conducted using an online text analysis tool, *Text Inspector*. Major findings of the study shows that mobile-assisted flipped learning has a significantly positive impact on L2 writing, and it was found that students' participation levels in mobile-assisted flipped learning was positively related with the number of metadiscourse markers used. Based on the findings, suggestions and implications are provided.

Keywords: EFL, flipped learning, metadiscourse markers, mobile-assisted language learning, L2 writing

Introduction

Linguistic resources are often used to comment on the ongoing text. According to Zhang (2019), they are referred to as metadiscourse or discourse about discourse. An example of this can be '*This article is going to talk about ...*' or '*Can you tell me ...*'. Craig (2008) also defined metadiscourse as talk about discussion or discourse. The prefix, *meta*, came from a Greek word meaning with, across, or after. The common term, *discourse*, means the pragmatic use of a language. It indicates the pragmatic use of a language to comment on discourse itself, shifting the focus of attention from ongoing communication to discourse in a frame or context designed to influence the meaning and the practical conduct of communication (Craig, 2008). In terms of metadiscourse markers, Hyland (2004) described them as many different kinds of linguistic features which can relate a text to its context. According to Bax (2012), students can better understand the text and also become more effective learners by studying the metadiscourse markers.

Previous scholars have claimed that students' performance can be improved when they produce a language with an awareness of metadiscourse (Cheng & Steffensen, 1996; Intraprawat & Steffensen,



1995). As an effective technique for improving writing, the appropriate use of metadiscourse markers makes the text more considerate and reader friendly (Hyland, 2004). Li (2003) also asserted that speakers can better express the speaker's intention with the use of discourse markers. He added that they are crucial in the process of utterance generation and understanding, which can lead to smooth communication. Pérez-Llantada (2003), in particular, reported the positive effects of metadiscourse techniques on English as a foreign language (EFL) students' communication skills, suggesting that students can be successful communicators with the use of metadiscourse strategies. From this point of view, it seems beneficial for EFL students to learn how to deal with metadiscourse markers to improve their language output.

Meanwhile, in the Korean EFL context, the adoption of the flipped approach has been emphasized with the development of technology (Kim & Yoon, 2021). According to Stockwell (2010), the flipped approach is closely related to EFL instruction. In particular, as most students have at least one mobile device (Webb & Doman, 2016), mobile-assisted language learning (MALL) has been adopted in flipped classrooms where technology is used for outside-the-classroom learning, and the flipped model is one of the most commonly used instructional designs in EFL settings nowadays (Ekmekci, 2017). In flipped learning environments, students can watch videos or listen to podcasts created by their teachers anytime and anywhere (Herrald & Schiller, 2013). As a branch of MALL (Webb & Doman, 2016), the flipped classroom has become a common practice at the college level.

Many studies have been carried out to engage more EFL students in the flipped classroom (Hamdan et al., 2013; Han, 2015; Hung, 2015; Sung, 2015; Soliman, 2016; Stockwell, 2013). Nonetheless, the empirical evidence in support of flipped learning is still lacking and only few materials are available in the EFL classroom (Yoon & Kim, 2020). There is little research supporting the incorporation of the flipped model in the EFL classroom (Mehring, 2016). Not many sources are available regarding the flipped approach that EFL teachers can turn to for hints or concrete lessons for using (Cockrum, 2014). Particularly in Korean EFL settings, more research is needed regarding the flipping of English classes, especially at a college level (Sung, 2015). Considering the lack of research on flipped learning in Korean EFL contexts, its effectiveness and practicality should be examined more carefully.

Taking all this into consideration, the current study aims to confirm the effects of the flipped model on EFL writing. Considering that the flipped environments help the students to actively engage in learning and practice their language output (Hamdan et al., 2013), it is necessary to investigate whether flipped learning is actually effective for written language production. Moreover, given that flipped learning is a branch of MALL and shares its educational benefits (Webb & Doman, 2016), this study aims to explore the effectiveness of flipped learning on L2 writing through mobile devices.

Specifically, the current study deals with the use of metadiscourse markers with regards to its positive relationship with the students' writing performance. Although studies have confirmed that students can improve their language output through the use of these markers (Cheng & Steffensen, 1996; Gholami et al., 2014; Hyland, 1998; Intraprawat & Steffensen, 1995; 2004; Martinez, 2004; Simin & Tavangar, 2009), little attention has been paid to research on the use of discourse markers by EFL students (Ying, 2007). Dastjerdi and Shirzad (2010) also pointed out that metadiscourse is rarely taught in EFL settings, and it seems vital that EFL students receive appropriate instruction in metadiscourse.

Given that Korean students especially have difficulty in producing English as a foreign language (Kim, 2016), an awareness of metadiscourse seems necessary for Korean EFL students to improve their language production. To sum up, the present study investigates the impact of mobile-assisted flipped learning on Korean EFL students' language production, focusing on their use of metadiscourse markers. Research questions for the study are formulated as follows:

- a. What are the effects of mobile assisted flipped learning on L2 writing performance?
- b. To what extent does amount of participation in mobile-assisted flipped learning have impact on the use of metadiscourse markers in L2 writing?

Literature Review

Mobile Assisted Language Learning in Flipped Classrooms

With the development of online learning environments, the increasing amounts of tertiary instruction have been delivered online. In particular, the development of the Internet has facilitated computer-assisted language learning (CALL). According to Webb and Doman (2016), language learning has been promoted and accepted all over the world with CALL programs. As computers are not the only device students use for their language learning, the newer terms including mobile-assisted language learning (MALL) have also been a popular topic of interest in foreign languageteaching and learning (Kim, 2018).

Mobile technology has been increasingly popular for the past decades and now plays a role as social staples. Compared to PCs, mobile devices, such as mobile phones, smartphones, tablet PCs, Personal Digital Assistants, etc., are small, lightweight, handheld, and portable. In addition, with internet access, they function like computers. Currently, we are headed for a world where mobile learning is in trend for language learning. According to Webb and Doman (2016), one method for utilizing MALL that is becoming a common practice in college level is flipping the language classroom.

In flipped learning, technology is used for outside-the-classroom learning, and students are required to watch videos or listen to podcasts created by their teacher before class (Herrald & Schiller, 2013). Scholars have insisted that the flipped model shares the educational benefits of MALL including portability, individuality, immediacy, and social interactivity (de la Fuente, 2014). MALL also has potential for providing students with rich, real time, conversational, and collaborative experiences outside the classroom (Kukulska-Hulme & Shield, 2008), and flipped learning also offers these benefits.

In the past few years, many advocates of flipped learning have highlighted its strengths by promoting its practice as worthwhile, useful, and preferable to the traditional lecture-only classes (Papadopoulos et al., 2010; Sung, 2015), and as one of the best instructional models using technology (Hamdan et al., 2013). The advancement in technology has allowed the extensive use of flipped classrooms, and it is gaining popularity among scholars and educators from different fields all around the world, especially in L2 instruction (Ekmekci, 2017; Kukulska-Hulme, 2009; Stockwell, 2010; Yoon & Kim, 2020). According to Kim and Yoon (2021), the adoption of the flipped learning has widely been emphasized in EFL fields.

In EFL classrooms, flipped learning can shift classrooms from a teacher-centered to a student-centered ones (Kim & Yoon, 2021; Yoon & Kim, 2020). As students learn through pre-recorded videos or podcasts provided by their teacher before class, students can study at their own pace as they rewind, fast-forward, and play the contents. This provides them with a unique experience with learning flexibility and autonomy. They have choices regarding the time, place, and learning modes that are suitable for their individual preferences and requirements. Webb and Doman (2016) added that flipped learning enables students to receive both intensive and extensive language input working at their own pace. It also allows individualized instruction as teachers can reach each student in class (Soliman, 2016). Students can deepen their understanding of the language and use it more effectively and correctly with instant feedback from their teacher. They can also practice their target language by interacting with peers (Mehring 2016). Furthermore, Kim and Yoon (2021) emphasized that EFL students have opportunities to produce the language in collaborative learning environments in flipped settings. This allows the students participate more actively in L2 production activities (Hamdan et al., 2013); Consequently, the students can enhance their learning performance (Hung, 2015) and produce better outcomes (Moravec et al., 2010; Yoon & Kim, 2020).

It should be noted, however, there have been some skepticisms in relation to flipped classroom in that many flipped classrooms are still teacher-centered and unidirectional (Bishop & Verleger, 2013). Also, although many studies have reported increases in students' achievement in the flipped learning environments (Moravec et al., 2010; Strayer, 2012; Yoon & Kim, 2020), there are others that have shown no significant difference between the learning outcomes from the flipped and the nonflipped classes (Findlay-Thompson & Mombourquette, 2014; Morin et al., 2013). Not to mention that there is a lack in

empirical evidence in support of flipped learning, and few materials are available for EFL learning (Cockrum, 2014; Mehring, 2016; Yoon & Kim, 2020).

Additionally, there has been an ongoing debate on the debate on the effectiveness of MALL (Kim, 2018). Kukulska-Hulme and Shield (2008) doubted the sufficiency of empirical evidence proving the effects of mobile technology on language learning. Fallahkhair et al. (2007) also noted that the same learning outcomes can be attained through other learning materials such as textbooks, desktop computers, or even TV. In other words, more benefits of MALL to education system need be explored (Dağdelen et al., 2020). Given that flipped learning is a branch of MALL (Webb & Doman, 2016), more studies are needed to elicit empirical evidence for its practical use and effectiveness in EFL classrooms. Therefore, it is necessary to explore the effects of mobile-assisted flipped learning on EFL students.

Metadiscourse Markers

Metadiscourse markers refer to linguistic features in a text. Known as transitions, they show the aspects of text organization (Bax et al., 2019). Words and phrases such as ‘first’ and ‘with regard to’ are the typical examples which can add extra information to the text. These markers show how ideas are connected to each other in the text and help the readers to learn which direction the text is flowing in. More importantly, they express the writers’ opinion and present their degree of certainty. In academic contexts, these markers reveal the ways the writers project themselves into the discourse to signal their attitudes or commitments, and ultimately help the writer to connect with the readers (Hyland, 1998). According to Hyland (2004), the metadiscourse markers indicate the writer’s stance not only toward the text’s content but also toward the readers. For readers, these markers help them connect, organize, and interpret material of a particular discourse community.

Previous studies have proved the positive effects of metadiscourse markers on students’ language development. Understanding metadiscourse markers allows students to infer intended meanings, to share pragmatic presuppositions, to understand discourse texture and intertextuality, and to interpret the ideological and institutional ties underlying the text (Pérez-Llantada, 2003). The students can have clarity on important details such as what the writers were trying to say, what their opinion on the topic was, what their argument was, and what the factual content of the text was (Bax, 2012). In this regard, the students can facilitate text comprehension by improving content recall and decreasing reading time (Ying, 2007). Moreover, if the students understand language use (e.g., the use of metadiscourse markers) more deeply, they can also use their knowledge to improve the quality of their own writing. In particular, the use of metadiscourse markers can help foreign language students to express themselves better in their target language. By understanding what a writer has written, the students potentially improve their linguistic performance (Bax, 2012). Thus, metadiscourse is an effective technique for improving the foreign language students’ writing, making their texts more considerate and reader friendly (Hyland, 1998).

Martinez (2004) investigated the use of discourse markers and found a significant relationship between the students’ linguistic performance and the number of discourse markers. A significant relationship was also witnessed between highly rated and poorly rated performance in the frequency use of discourse markers. Specifically, those who used a larger number of elaborative, contrastive, and topic relating discourse markers received a higher score. He also discovered that students used various discourse markers with some specific types used more frequently compared to others. Elaborative markers were the most frequently employed, followed by contrastive markers. Elaborative markers also affected students’ performance quality the most closely. Intaraprawat and Steffensen (1995) investigated EFL students’ use of metadiscourse features and found that good essays included significantly higher numbers of as well as a greater variety of metadiscourse markers than did the poor essays. Furthermore, in their study, the good essays contained more correct metadiscourse compared to their counterparts. Likewise, Simin and Tavangar (2009) reported that the more proficient students used the more metadiscourse markers. It also appeared that metadiscourse instruction positively affected the correct use of metadiscourse markers.

Gholami et al. (2014) also conducted a study to investigate the misuses of metadiscourse markers of intermediate EFL students. The results indicated that the students' misuses of metadiscourse markers were due to their overuse of these markers. Punctuation, interlingua, and intralingua errors also caused their misuses of the markers. More importantly, their language proficiency had a positive relationship with the uses of the metadiscourse markers and essays quality. Based on these results, the authors suggested that students' errors should be analyzed in class not only by the teachers but also by the students. The students can be asked the reasons why they have made the errors by discussing them. Additionally, the students must be taught punctuation rules deductively. The authors also recommended to compare the markers in two languages (students' native language and target language) to make the differences clearer. In this case, the familiarity with students' native language will help the teacher to detect and analyze such errors. In addition, the authors noted that intralingua errors indicate the students' improvement in language learning. That is, errors are reflections of the students' improvement in linguistic competence in their target language. Therefore, the authors claimed that teachers in EFL settings should attract their students' attention to the metadiscourse markers.

Ying (2007) also compared the use of discourse markers of students in different settings, and found differences in their use between native speakers and Chinese nonnative speakers and between native speakers and Japanese nonnative speakers. He learned that Chinese and Japanese EFL students used less discourse markers than native speakers did. In addition, the misuse of metadiscourse markers was frequently witnessed in the essays written by nonnative speakers. However, there was no obvious difference between the Chinese and Japanese nonnative speakers. Xu (2001) revealed interesting findings regarding metadiscourse use and EFL university students. The author found that the students in their final two years (junior and senior) used more formally complex and precise interactive metadiscourse than those in their first two years (freshmen and sophomore). He also found that they employed fewer attitude markers and fewer validity markers.

Metadiscourse awareness affects students' language performance (Dastjerdi & Shirzad, 2010). That is, the students' performance can be improved when they produce a language with an awareness of metadiscourse (Cheng & Steffensen, 1996; Intraprawat & Steffensen, 1995). Therefore, it seems vital that students receive appropriate instruction regarding the use of metadiscourse markers. It can be said that students need to learn how to deal with metadiscourse markers to improve their language output. Nonetheless, metadiscourse is rarely taught (Dastjerdi & Shirzad, 2010), and little attention has been paid to research on the use of discourse markers by EFL students (Ying, 2007). Given that Korean EFL students have difficulty in producing their target language (Kim, 2016), an awareness of metadiscourse might help them to improve their language production. In this regards, the current study focuses on how to increase Korean EFL students' awareness of metadiscourse and help them to use the metadiscourse markers more appropriately.

Methodology

Participants

The participants for the study were 45 first-year students enrolled in 2-credit Effective Communication course in an A university in Seoul, Korea. The course was offered to freshmen as a graduation requirement, and met once a week for two hours. During the semester, four integrated language skills with focus on writing were addressed. The course was taught by one of the researchers who is a native speaker and has 21 years of EFL teaching experience. Based on the level placement test based on TOEIC administered in prior to the registration, the participants were in intermediate level. The average seat time and scores were recorded in the mobile application. For mobile learning activities, the average of weekly seat time for all the participants were 175 minutes per week for mobile learning activities and their

average score was 89%, and for weekly test, the average seat time was 40 minutes with average score of 81%.

For the in-depth text analysis for metadiscourse markers were three students chosen based on the amount of mobile activity completion and test scores. The amount of total mobile participation were categorized as 90-110 being high, 70-90 being moderate, and 50-70 representing low. Those who participated in less than 49 activities were not considered for text analysis. From those with total scores above 80%, participants were chosen to each represent high, moderate, low participation, and the details are provided in Table 1 pseudonomously. Hanna was chosen to represent high participation with activity completion of 95 and total score of 97%, Miyoung was moderate with 78 incidents of completion and score of 94% , and Lannie had activity completion of 60 and total score of 81%, which was low.

TABLE 1
Participants for the Text Analysis

	Items	Practice	Test	Total	Participation Level
Hanna	Activity Completion	85 / 100	10 / 10	95 / 110	High
	Total Score	99 %	85%	97 %	
	Total Seat Time	327 min	30 min	357 min	
Miyoung	Activity Completion	68 / 100	10 / 10	78 / 110	Moderate
	Total Score	96%	83%	94 %	
	Total Seat Time	176 min	28 min	205 min	
Lannie	Activity Completion	50 / 100	10 / 10	60 / 110	Low
	Total Score	82%	75%	81 %	
	Total Seat Time	254 min	50 min	305 min	

Procedure

The procedures for instruction in this study included offline instruction and online instruction. The textbook used for the study was Smartchoice 2, 3rd edition (Wilson & Healy, 2016) with an accompanying mobile application called On the Move. On the Move provided practice activities, tests, and a BBS (Bulletin Board System) for writing for each unit. Online instruction on vocabulary, reading, and listening took place via instructional videos and contents from On the Move. The participants were to watch the video and carryout individual learning activities through the mobile app in prior to face-to-face class. A quick review was provided by the instructor in the beginning of the class, then the students engaged in task-based speaking activities in pairs or groups followed by presentation and feedback. In-class activities included individual work, pair and small group tasks, discussion, and presentation. After the face-to-face class, the students submitted bi-weekly writing assignments on the topics from the textbooks on the BBS in On the Move. A total of 6 individual writing assignments on the topics from the textbooks were given on weeks 1, 3, 5, 7, 9, and 11. The topics are listed in Table 2.

TABLE 2
Topics for the Writing Assignments

Assignment #	Weeks	Topics	Writing topics
T1	1	Introduction	My personality
T2	3	Past experince	Previous vacation
T3	5	Entertainment	Movie review
T4	7	Culture	Describe a wedding in your country
T5	9	Accients	Talk about an intresting past experience
T6	11	Shopping	Recommend a shopping place

Data Collection

For the study, both quantitative and qualitative methods were used to investigate L2 students' writing performance in mobile flipped learning. For the quantitative analysis, the students' second and last

writing assignments were evaluated to investigate their improvement in writing performance. The second assignment was used instead of first one because not all students were able to turn in the first assignment. The reason for this is that they did not have the textbook with online code to create an ID yet, so they were not able to use the mobile application until the second week.

In total, 45 complete sets of second assignment and the sixth assignment were evaluated using ACTFL Proficiency Guidelines 2012—Writing (ACTFL, 2012). The raters were a native speaker professor in the English language department and a non-native speaker professor in English education field, both with more than 15 years of teaching experience. The inter-rater reliability was .97, showing high reliability between the raters.

For the qualitative analysis, students' mobile participation was logged through the application and the data were analyzed descriptively. It was used to categorize them into levels of participation and to select the participants for text analysis. The text analysis was conducted for the second and sixth writing assignments of the three selected participants – Hanna, Miyoung, and Lannie – to each represent high, moderate, low participation, respectively.

Data Analysis

This study employed an online text analysis tool *Text Inspector* (<https://textinspector.com/>). According to Rysová et al. (2019), this tool a well-known text evaluation tools for English designed to evaluate non-native speakers' writing, providing a statistical analysis of the text by calculating the number of words, syllables, sentences, average text length, relative frequency, and metadiscourse markers. In *Text Inspector*, a software called Analyst check every example of coding in the context and to alter or exclude it from the analysis in case of misclassification of an item (Bax et al., 2019). Hence, for the current study, the texts were analyzed for sentence count, average sentence length, word count, lexical diversity, lexical density, and metadiscourse markers. Regarding lexical diversity, the Measure of Textual Lexical Diversity (MTLD) was used to calculate the mean length of word strings that maintain a criterion level of variation. For metadiscourse markers, their types and counts were investigated based on thirteen categories of metadiscourse markers identified by Bax et al. (2019) and Hyland (2004) which are announce goal, code gloss, endophoric, hedge, logical connective, relational marker, attitude marker, emphatic, label stage, person marker, sequencing, and topic shift.

Results and Discussions

The study used both quantitative and qualitative methods to investigate Korean university students' English writing performance in mobile flipped learning. After the texts were collected and analyzed, the findings pertaining to students' writing performance were presented in separate sections. First, the quantitative findings on students' writing performance comparing the second and sixth assignments were reported. Second, the qualitative findings on the detailed text analysis including metadiscourse markers were presented and summarized. Comparisons by participation level – high, moderate, low – were represented for each category.

Quantitative Findings – Effectiveness on Writing Performance

The participants' scores from 45 completed sets of second and sixth writing assignments were analyzed for the effectiveness of mobile flipped learning on Korean university students' English writing performance. The students' writing performance was evaluated by the two raters using ACTFL Proficiency Guidelines 2012 — Writing (ACTFL, 2012). Table 3 shows descriptive statistics and the results of the paired-samples *t*-test between the second and sixth writing assignments.

TABLE 3
Scores of T2 and T6

	Mean	Std	<i>t</i>	df	sig.
T2	5.00	.6909	44.270	44	.000
T6	6.52	.9883			

As can be seen from Table 3, the findings of the paired-samples *t*-test show that the participants had an improvement in general writing ability. It was found that there was a statistically significant difference between the two writing assignments ($t = 44.270, p = .000$). The students' mean score of the second assignment was 5.00 ($SD = 0.69$) while that of the sixth was 6.52 ($SD = 0.99$). This confirms the positive effects of mobile flipped learning on Korean university students' writing performance.

The findings of the present study corroborate the previous studies showing the positive effects of mobile-assisted language learning on EFL writing. For example, in their empirical study, Estarki and Bazayr (2016) reported that MALL played a positive role in promoting L2 students' writing skills. After conducting a comparative study, Malekzadeh and Najmi (2015) also revealed its superior effects on EFL writing compared to pencil-and-paper. Likewise, Kim (2018) claimed that MALL can develop writing skills of Korean EFL students including vocabulary, mechanics, and language use.

According to Webb and Doman (2016), flipped learning is a branch of MALL, sharing its educational benefits. Previous findings have found that flipped environments help students actively engage in learning and practice their L2 writing (Hamdan et al., 2013). In the same line, the findings of the study confirmed the effectiveness of flipped learning on L2 writing through mobile devices. It can be said that the current study proved the educational value of MALL in L2 writing.

Qualitative Findings – Text Analysis

To investigate the L2 texts produced by the students based on participation, students were grouped into three groups based on their amount of participation, and one student with scores of at least 80% was selected for each group. The selected students were pseudonymously labeled Hanna, Miyoung, and Lannie to represent each high, moderate, and low participation group in respective order. Text analysis on their second and sixth writing assignments were conducted which are labeled as T2 and T6.

TABLE 4
Result of Text Analysis

	Hanna		Miyoung		Lannie	
	T2	T6	T2	T6	T2	T6
Sentence count	7	22	6	25	8	22
Avg Sentence length	9.29	11.64	8.25	9.64	6.75	9.86
Word count	62	245	66	233	54	207
Lexical diversity	78.87	68.81	58.09	72.35	54.74	67.84
Lexical density	43.75	52.71	46.97	55.89	57.41	60.1

As seen in Table 4, sentence count has increased from T2 and T6 for all three selected participants as well as word count regardless of their participation levels. It shows that the students are writing longer texts as the study progressed. In addition, average sentence length increased for all of them from T2 to T6.

It is clearly seen that as the study progressed, the students' writing increased in total quantity, and it consisted of longer sentences than the beginning of the study. For lexical diversity, Hanna's result shows that there was a decrease of 10.06 from T2 to T6; however, Miyoung had an increase of 14.26, and Lannie also increased 13.1. It appears that Hanna displayed high lexical diversity to begin with in T2, but Miyoung and Lannie's starting point was much lower with 58.09 and 54.75. Escalation of Miyoung and Lannie's lexical diversity may have been brought about by having more room for improvement. Lastly, lexical density was also found to show an increasing trend from T2 to T6 across the board.

Based on the results, it seems that using mobile application in the flipped classroom for L2 writing has positive impacts on students' writing production, especially in quantity of text production. As the study progressed, their word count increased, and they wrote more and longer sentences. Lexical density also increased in mobile-assisted flipped learning settings. It was found that L2 students can benefit from flipped learning in MALL environments.

There has been little research supporting the incorporation of the flipped approach in L2 learning (Mehring, 2016). Particularly in Korea, the empirical evidence supporting flipped learning is still lacking and only few materials are available (Yoon & Kim, 2020). Thus, more research is necessary regarding the flipping of English classes, especially at a college level (Sung, 2015). Taking all this into consideration, the current investigated impact of mobile-assisted flipped learning on L2 writing. In this regards, this study sheds light on the effectiveness and practicality of flipped learning in MALL environments.

Qualitative Findings – Changes in the Use of Metadiscourse Markers by Participants

Details of the metadiscourse markers for Hanna in high participation group are presented in Table 5. The percentage of occurrence and specific words used for metadiscourse marker categories are listed as well as the number of their occurrences. For unlisted, the specific words are not listed here.

TABLE 5
Metadiscourse Markers for Hanna

T2			T6		
Category	%	Words	Category	%	Words
Emphatic	3.12	never (1) should (1)	Attitude marker	2.06	even (1) have to (2) prefer (2)
Hedge	1.56	would (1)	Code gloss	0.41	that is (1) know (2)
Logical connective	4.69	and (2) but (1)	Emphatic	1.65	of course (1) should (1)
Person marker	4.69	I (3)	Endophoric	0.41	see (1)
Relational marker	4.69	you (3)	Hedge	0.41	sometimes (1)
			Logical connective	6.17	and (10) because (1) but (2) so (2)
			Person marker	12.35	I (24) me (1) my (5)
Total	18.75	12	Total	23.46	59
Unlisted	81.25	-	Unlisted	76.54	-

It can be seen that the use of metadiscourse markers increased from T2 to T6 by 4.71% for the texts in whole, and number of markers increased by 47, and the variety of metadiscourse marker categories also increased from 5 to 7. Among the categories of metadiscourse markers, emphatic, hedge, logical

connective and person marker were found in both texts, and it can be observed that the variety of words for these categories increased as well with exception of hedge. For example, two difference emphatic markers were used twice in T2 but in T6, three different words were used four times as emphatic markers. For person marker, 'I' was used three times in T2, and 'I', 'me', and 'my' were found 24 times, once, and five times in T6, respectively. Diverse use of logical connective markers also observed. In T2, 'and' and 'but' were used, but in T6, the use of logical connective markers increased to 'and', 'because', 'but', and 'so', showing more diversity.

It was observed that Hanna was able to use more number of metadiscourse markers in T6 as well as more categories of markers than T2. The metadiscourse markers that were found in one text only were relational from T2, and code gloss and endophoric from T6. However, in general, it can be seen that the quantity and variety of metadiscourse markers increased from the beginning of the study to the end of the study.

The metadiscourse markers by categories for Miyoung in moderate participation group are presented in Table 6. According to the data, the total use of metadiscourse markers in the whole text increased 1.03% from T2 to T6. The number of markers increase by 24 and the categories also increased from two to four.

For Miyoung, logical connective and person maker are used for both texts. The number of occurrence increased as the study progressed, showing that logical connective markers were used four times in T2 and 19 times in T6. In T2, four different words were each used once, whereas T6 shows more variety as well as number of occurrences, with five different words and the most frequently occurring word 'and' was used eight times. Likewise, person makers were found six times in T2, and nine times in T6. The specific words remained the same for both texts, displaying no variety across the texts.

TABLE 6
Metadiscourse Markers for Miyoung

T2			T6		
Category	%	Words	Category	%	Words
Logical connective	6.06	also (1) and (1) because (1) yet (1)	Logical connective	7.88	also (2) and (8) because (2) or (3) so (4)
Person marker	9.09	I (4) my (2)	Person marker	3.73	I (7) my (2) you (6)
			Relational marker	2.90	your (1)
			Sequencing	1.24	first (1) second (1) third (1)
			Topic shift	0.41	well (1)
Total	15.15	10	Total	16.18	34
Unlisted	84.85	-	Unlisted	83.82	-

It should be noted that in T2, only two categories of metadiscourse markers were found, but in T6, markers in five different categories were found, showing more diversity. In T6, relational markers, topic shift, and sequencing were used as well. The difference in metadiscourse markers for each texts may be due to the topic of the texts, but regardless, it can be seen that the quantity and diversity of the markers increased in T6 in comparison to T2.

According to Table 7 for Lannie in low participation group, there was a decrease of metadiscourse markers by 1.77% from T2 to T6; however, it should be noted that the percentage of metadiscourse marker are relative to the whole text. In T2, Lannie wrote 8 sentences comprised of 54 words whereas in T6, she wrote 22 sentences comprised of 207 words. Considering the sheer quantity of text produced, T6 was 3.83 times more than T2. Bearing that in mind, the number of total occurrences for metadiscourse markers needs to be observed. In T2, a total of 10 metadiscourse markers were used, on the other hand, 33 were used for T6, showing a clear increase of quantity.

TABLE 7

Metadiscourse markers for Lannie

Text 2			Text 6		
Category	%	Words	Category	%	Words
Endophoric	1.85	see (1)	Attitude marker	1.44	have to (2) important (1)
Logical connective	5.56	also (1) and (1) so (1)	Code gloss	.96	called (1) that is (1)
Person marker	9.26	I (5)	Hedge	.48	mostly (1)
Relational marker	1.85	you (1)	Logical connective	5.74	also (2) and (7) so (3)
			Person marker	3.83	I (5) my (2) we (1)
			Relational marker	2.87	you (3) your (3)
			Sequencing	.96	next (2)
			Topic shift	.48	well (1)
Total	18.52	10	Total	16.75	33
Unlisted	81.48	-	Unlisted	83.25	-

The metadiscourse markers commonly found for both texts were logical connective, person marker, and relational marker. The occurrence of logical connective markers were 3 and 12 for T2 and T6, respectively, showing a dramatic increase in their usage in T6, and relational marker was found in both T2 and T6, each once and six times. Person maker was used five times for T2 and eight times for T6, also showing that Lannie used more of them in T6 than the other. However, it needs to be noted that the actual markers used were ‘also’, ‘and’, and ‘so’ for both texts, which did not show increase in variation. Taking into account that Lannie is in an intermediate level English course, writing ability in L2 may have had an impact on the limited marker choices in writing.

As mentioned previously in Table 4, the quantitative findings of the study show a significant improvement between the second and sixth writing assignments after engaging in mobile flipped learning. The findings of the current study also confirm the positive effects of mobile flipped learning on Korean university students’ use of metadiscourse markers. It was found that all the three students were able to use more categories of discourse markers in T6 than T2. Hanna and Miyoung, except Lannie, used more number of metadiscourse markers in T6 than T2.

In general, it can be said that the quantity and variety of metadiscourse markers increased from the beginning to the end of the study. Considering a positive relationship between metadiscourse markers and language development, the findings of the study support previous findings. According to the previous studies, if students understand the use of metadiscourse markers more deeply, they can facilitate their text comprehension skills, which leads to improvement in the quality of their own writing (Bax, 2012; Pérez-Llantada, 2003; Ying, 2007). In particular, the use of metadiscourse markers helps L2 students to improve their writing performance. Hyland (1998) claimed that metadiscourse plays an important role in improving the L2 students’ writing, and using them can increase the quality of the students’ texts.

Specifically, Martinez (2004) found a significant relationship between the number of discourse markers and the linguistic performance. In his study, highly rated performance was related to the more frequent use of discourse markers while poorly rated performance showed the less frequent use of discourse markers. Intaraprawat and Steffensen (1995) also discovered that the good essays included a higher number of metadiscourse markers with a greater variety than did the poor essays. Accordingly, Simin and Tavangar (2009) revealed that the more proficient students used the more metadiscourse markers. In this regards, Gholami et al. (2014) claimed that L2 teachers should attract their students’ attention to the metadiscourse markers. It seems vital to increase L2 students’ awareness of metadiscourse to better use the metadiscourse markers.

Students’ academic performance can be improved when they produce a language with an awareness of

metadiscourse (Cheng & Steffensen, 1996; Intraprawat & Steffensen, 1995). Since metadiscourse awareness affects students' language performance (Dastjerdi & Shirzad, 2010), L2 students should receive appropriate instruction regarding the use of metadiscourse markers. They need to learn how to deal with metadiscourse markers to improve their language output. Given that metadiscourse is rarely taught (Dastjerdi & Shirzad, 2010) and little attention has been paid to the use of discourse markers by L2 students (Ying, 2007), the findings of the study provide insight into the importance of metadiscourse markers in L2 writing.

Qualitative Findings – Differences in the Use of Metadiscourse Markers by Levels of Participation

Based on identified metadiscourse markers, the number of occurrences observed by levels of participation are presented below. Unlisted were excluded from the graphs. In Figure 1, metadiscourse markers found in T2 by participation levels are presented. It can be seen that Hanna with the high level of participation used five different categories of markers, totalling in 12, where as Miyoung with the moderate level of participation used 10 in two categories. Lannie with the low level of participation also used 10 but they were dispersed throughout four categories. As stated before, the categories of discourse markers found for all three were logical connective and person markers, which were the most often used for all three participants.

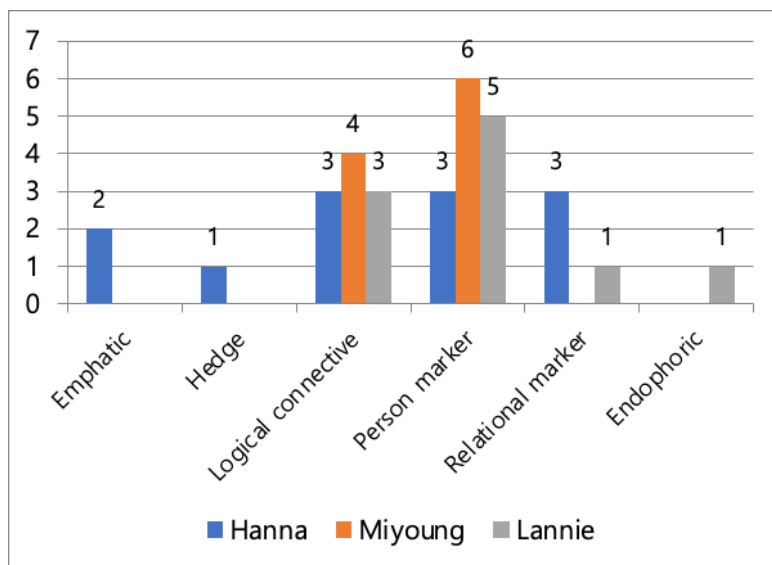


Figure 1. Metadiscourse markers found in T2.

As can be seen from Figure # above, there was no clear difference among the three students in terms of the quantity of metadiscourse markers. Although the student with the high level of participation used more metadiscourse markers ($n = 12$) than those with the moderate and low levels of participation ($n = 10$), there was a slight difference. Furthermore, there was no differences between the students with the moderate and low levels of participation. Regarding the variety of the metadiscourse markers, there was little difference found among the students. However, it did not seem remarkable considering that the student with the high level of participation used five different categories while the student with the low level of participation used four categories. Interestingly, the student with moderate level of participation used only two different categories of metadiscourse markers. In total, it cannot be said that the quantity and the variety of metadiscourse markers differ by levels of participation at the beginning of the study.

On the other hand, notable differences were observed in T6. Figure 2 presents metadiscourse markers found in T6 by participation levels. For Hanna in high participation group, her use of metadiscourse

markers increased to 59 occurrences in seven categories. Miyoung, representing moderate participation, used 34 metadiscourse markers in five categories, and Lannie in low participation group used 33 in eight categories. Differences in preferred use of metadiscourse markers are also found. While logical connective and person marker were used most frequently by all three participants, it can be seen that both Hanna and Lannie's show diverse use of metadiscourse markers, but Hanna distinctively used metadiscourse markers that the other two did not use, which were code gloss, endophoric, and hedge. Contrastively, she did not use relational marker, sequencing, and topic shift while Miyoung and Lannie did. Nevertheless, comparing to T2, the quantity and diversity of metadiscourse markers increased for all three participants.

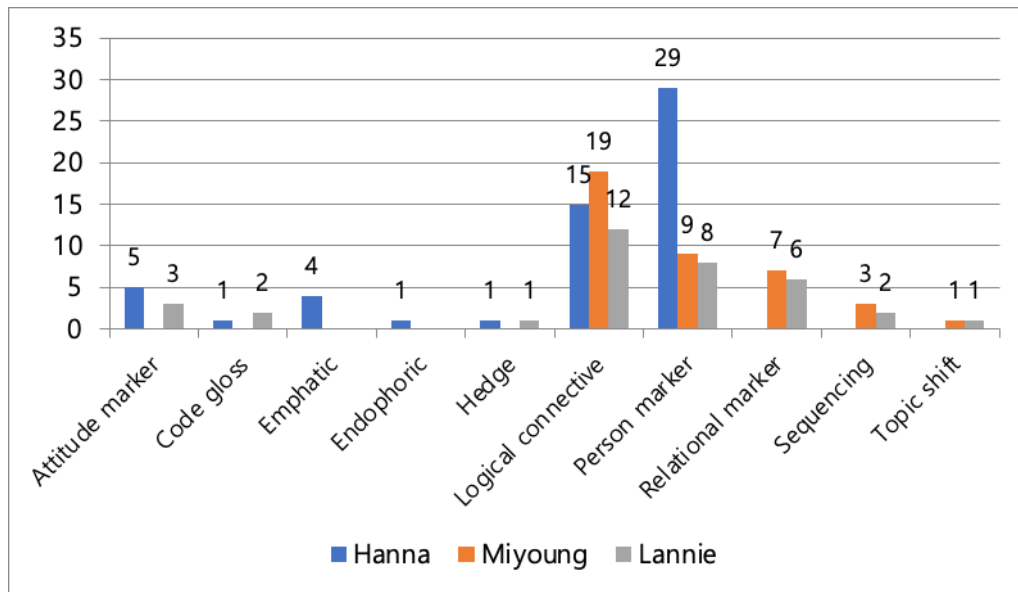


Figure 2. Metadiscourse markers found in T6.

There was a clear difference among the three students in terms of the quantity of metadiscourse markers. Hanna used more metadiscourse markers ($n = 59$) than those with the moderate and low levels of participation ($n = 34$ and 33 , respectively). Although Miyoung used one more metadiscourse markers than Lannie in low participation group, it was a slight difference. To summarize, it can be said that the quantity of metadiscourse markers differ by levels of participation.

Regarding the variety of the metadiscourse markers, there was a little difference found among the students at different levels of participation. However, it did not seem remarkable considering that the student with the high level of participation used seven different categories while the student with the low level of participation used eight categories. Interestingly, the student with moderate level of participation used only five different categories of metadiscourse markers. To sum up, it cannot be said that students' level of participation differently affect the variety of metadiscourse markers.

In MALL settings, students can control of what they learn with less pre-defined learning delivered to them (Kukulska-Hulme & Shield, 2008). According to Kukulska-Hulme et al. (2007), the students "take the lead and engage in activities that are motivated by their personal needs and circumstances of use" (p. 53). It was found that the students' learning became self-paced, individual, and responsible. This might help the participants in the current study to participate more actively in their learning process. The findings are also in line with Hamdan et al. (2013) asserting that flipped learning environments lead EFL students to more actively participate in language learning activities. According to Hung (2015), this enhances the students' learning performance. Consequently, they can produce better outcomes (Moravec et al., 2010).

The findings of the current study confirm that the more the students participated in mobile-assisted flipped learning, the more metadiscourse markers they used. However, the student with a higher level of

participation did not use a greater variety of metadiscourse markers than those with a lower level. Considering the positive relationship between students' participation levels and language outcomes, the results of the study support the previous studies suggesting that MALL or flipped learning environments play a beneficial role in increasing students' participation (Hamdan et al., 2013; Kukulska-Hulme et al., 2007), which can lead to improvement in linguistic achievement (Hung, 2015; Moravec et al., 2010). Furthermore, scholars have shown the positive relationship between the language performance the number of discourse markers (Intaraprawat & Steffensen, 1995; Martinez, 2004; Simin & Tavangar, 2009). In this regards, the findings of this study proved that the level of students' participation has an impact on the number of metadiscourse markers, which can be related to the improvement of L2 writing.

According to Intaraprawat and Steffensen (1995), students' writing performance is related to a variety of metadiscourse markers. Given the positive effects of students' participation level on language performance (Hung, 2015; Moravec et al., 2010), the more various metadiscourse markers should have been used by the student with a high level of participation, Hanna, compared to the students with a low level of participation, Lannie. However, the current study failed to show that the more the students participate in mobile-assisted flipped learning, the more various metadiscourse markers they use. In the present study, the student representing low participation used more various metadiscourse markers than the student in the high participation group. Considering this, the further research is necessary to determine the relationship between students' participation levels and a variety of metadiscourse markers.

Conclusion

As the flipped environments help students to practice their output by actively engaging in language learning activities (Hamdan et al., 2013), the present study investigates the effects of mobile-assisted flipped learning on Korean EFL students' language production, focusing on their use of metadiscourse markers. According to Bax (2012), students can better understand the text and also become more effective learners by studying the metadiscourse markers. In particular, Pérez-Llantada (2003) reported the positive effects of metadiscourse techniques on L2 language skills. In this regards, it seems beneficial for L2 students to learn how to deal with metadiscourse markers to improve their language output.

Considering that little attention has been paid to the L2 students' use of metadiscourse markers (Ying, 2007), the current study investigates the use of metadiscourse markers by Korean university students of English language. Particularly, this study examined the effects of mobile assisted flipped learning on L2 writing performance using the quantitative methods. From the qualitative point of view, the study also explored to what extent mobile assisted flipped learning affect the use of metadiscourse markers in L2 writing and investigated whether its effects on the use of metadiscourse markers differed by levels of participation. A total of 45 complete sets of the second and sixth writing assignments were evaluated using ACTFL Proficiency Guidelines 2012. For the text analysis of the selected participants to each represent high, moderate, low participation, this study employed an online text analysis tool *Text Inspector*.

Major findings of the study are as follows: There is a positive relationship between mobile-assisted flipped learning and Korean university students' writing performance. This corroborates the previous studies showing the positive effects of mobile-assisted language learning on EFL writing (Estarki & Bazyar, 2016; Kim, 2018; Malekzadeh & Najmi, 2015). The findings of the current study also confirm the positive effects of mobile flipped learning on Korean university students' use of metadiscourse markers. In general, the quantity and variety of metadiscourse markers increased from the beginning to the end of the study. Considering a positive relationship between metadiscourse markers and language development, the findings of the study support previous findings (Bax, 2012; Hyland, 1998; Pérez-Llantada, 2003; Ying, 2007).

It is also found that the more the students participated in mobile-assisted flipped learning, the more metadiscourse markers they used. In this regards, the findings of this study proves that the level of students' participation has an impact on the number of metadiscourse markers, which can be related to the

improvement of L2 writing (Hamdan et al., 2013; Hung, 2015; Intaraprawat & Steffensen, 1995; Kukulska-Hulme et al., 2007; Martinez, 2004; Moravec et al., 2010; Simin & Tavangar, 2009).

However, the student with a higher level of participation did not use a greater variety of metadiscourse markers than those with a lower level. To sum up, it cannot be said that students' level of participation differently affect the variety of metadiscourse markers. Considering the previous studies showing the positive effects of levels of participation on language performance (Hung, 2015; Moravec et al., 2010) and the positive relationship between the language performance and a variety of metadiscourse markers (Intaraprawat & Steffensen, 1995), the further research is necessary to determine whether the students' participation levels affect their use of various metadiscourse markers.

Dastjerdi and Shirzad (2010) noted that metadiscourse is rarely taught in L2 settings, and it seems essential that L2 students receive appropriate instruction in metadiscourse. Considering that little attention has been paid to the metadiscourse markers (Ying, 2007) and more research is required regarding the effectiveness and practicality of flipped learning (Sung, 2015), the findings of the study shed light on the effectiveness of mobile-assisted flipped learning regarding L2 students' use of metadiscourse markers. Given the positive effects of students' awareness of metadiscourse and their use of metadiscourse markers on language performance (Cheng & Steffensen, 1996; Intaraprawat & Steffensen, 1995), the current study offers an insight into how to increase Korean EFL students' awareness of metadiscourse and help them to use the metadiscourse markers more appropriately, and that mobile-assisted flipped learning shows potential for providing L2 students with chances to use metadiscourse markers to improve their language output.

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References

- ACTFL. (2012). *ACTFL proficiency guidelines*. ACTFL.
- Bax, S. (2012). *Text Inspector. Online text analysis tool*. <https://textinspector.com/>
- Bax, S., Nakatsuhara, F., & Waller, D. (2019). Researching L2 writers' use of metadiscourse markers at intermediate and advanced levels. *System, 83*, 79-95.
- Cheng, X., & Steffensen, M. S. (1996). Metadiscourse: A technique for improving student writing. *Research in the Teaching of English, 30*(2), 149-181.
- Cockrum, T. (2014). *Flipping your English class*. Routledge.
- Craig, R. T. (2008). Metadiscourse. In W. Donsbach (Ed.), *International encyclopedia of communication* (pp. 3707-3709). Blackwell. <https://doi.org/10.1002/9781405186407.wbiecm078>
- Dastjerdi, V., & Shirzad, M. (2010). The impact of explicit instruction of metadiscourse markers on EFL learners' writing performance. *The Journal of Teaching Language Skills, 2* (2), 155-174.
- Dağdelen, K. O., Konca, M. Y., & Demiröz, H. (2020). The effect of mobile-assisted language learning (MALL) on EFL learners' collocation learning. *Journal of Language and Linguistic Studies, 16*(1), 489-509.
- de la Fuente, M. J. (2014). Learners' attention to input during focus on form listening tasks: The role of mobile technology in the second language classroom. *Computer Assisted Language Learning, 27*(3), 261-276.
- Ekmekci, E. (2017). The flipped writing classroom in Turkish EFL context: A comparative study on a new model. *Turkish Online Journal of Distance Education, 18*(2), 151-167.
- Fallahkhalil, S., Pemberton, L., & Griffiths, R. (2007). Development of a cross-platform ubiquitous language learning service via mobile phone and interactive television. *Journal of Computer Assisted Learning, 23*(4), 312-325.
- Findlay-Thompson, S., & Mombourquette, P. (2014). Evaluation of a flipped classroom in an undergraduate business course. *Business Education & Accreditation, 6*(1), 63-71.
- Gholami, J., Nejad, S. R., & Pour, J. L. (2014). Metadiscourse markers misuses: A study of EFL learners' argumentative essays. *Procedia - Social and Behavioral Sciences, 98*, 580-589.
- Han, Y. J. (2015). Successfully flipping the ESL classroom for learner autonomy. *NYS TESOL Journal, 2*(1), 98-109.
- Hamdan, N., McKnight, P., McKnight, K., & Arfstrom, K. M. (2013). *The flipped learning model: A white paper based on the literature review titled "A review of flipped learning."* Flipped Learning Network.
- Herrald, C. F., & Schiller, N. A. (2013). Case studies and the flipped classroom. *Journal of College Science Teaching, 42*(5), 62-66.
- Hung, H. (2015). Flipping the classroom for English language learners to foster active learning. *Computer Assisted Language Learning, 28*(1), 81-96.
- Hyland, K. (1998). Persuasion and context: The pragmatics of academic metadiscourse. *Journal of Pragmatics, 30*(4), 437-455.
- Hyland, K. (2004). Disciplinary interactions: Metadiscourse in L2 postgraduate writing. *Journal of Second Language Writing, 13*(2), 133-151.
- Intarparawat, P., & Steffensen, M. S. (1995). The use of meta-discourse in good and poor ESL essays. *Journal of Second Language Writing, 4*, 253-272.
- Kim, N. Y. (2016). Effects of voice chat on EFL learners' speaking ability according to proficiency levels. *Multimedia-Assisted Language Learning, 19*(4), 63-88.
- Kim, N. Y. (2018). CALL and MALL: Effects on foreign language writing and impacts on perceptions of language learning. *The Korean Journal of Applied Linguistics, 34*(1), 143-167.
- Kim, N. Y., & Yoon, S. Y. (2021). A comparative study on blended learning and flipped learning: EFL students' learner autonomy, independence, and attitudes. *Korean Journal of English Language and Linguistics, 21*, 171-188.

- Kukulska-Hulme, A., Traxler, J., & Pettit, J. (2007). Designed and user-generated activity in the mobile age. *Journal of Learning Design*, 2(1), 52-65.
- Kukulska-Hulme, A., & Shield, L. (2008). An overview of mobile assisted language learning: From content delivery to supported collaboration and interaction. *ReCALL*, 20(3), 271-289.
- Kukulska-Hulme, A. (2009). Will mobile learning change language learning? *ReCALL*, 21(2), 157-165.
- Li, Z.-W. (2003). Discourse Connectives as Indicators of Coherence Relations. *Shandong Foreign Languages Journal*, 1, 32-36
- Martínez, A. C. L. (2004). Discourse markers in the expository writing of Spanish university students. *Ibérica: Revista de la Asociación Europea de Lenguas para Fines Específicos (AELFE)*, 8, 63-80.
- Mehring, J. (2016). Present research on the flipped classroom and potential tools for the EFL classroom. *Computers in the Schools*, 33(1), 1-10.
- Moravec, M., Williams, A., Aguilar-Roca, N., & O'Dowd, D. K. (2010). Learn before lecture: A strategy that improves learning outcomes in a large introductory biology class. *CBE - Life Sciences Education*, 9(4), 473-481.
- Morin, B., & Kecskemety, K. M., & Harper, K. A., & Clingan, P. A. (2013, June), The inverted classroom in a first-year engineering course [Conference presentation]. *2013 ASEE Annual Conference & Exposition*. Atlanta, GA, USA. <https://doi.org/10.18260/1-2-22605>
- Papadopoulos, C., Santiago-Roman, A., & Portela, G. (2010). Work in progress - Developing and implementing an inverted classroom for engineering statics [Conference presentation]. *The 40th ASEE/IEEE Frontiers in Education Conference*. Alrlington, VA, USA.
- Pérez-Llantada, C. (2003). Communication skills in academic monologic discourse. Empirical and applied perspectives. *Circulo de Lingüística Aplicada a la Comunicación*, 3(15), 1-14.
- Simin, S., & Tavangar, M. (2009). Metadiscourse knowledge and use in Iranian EFL writing. *Asian EFL Journal*, 11(1), 230-255.
- Soliman, N. A. (2016). Teaching English for academic purposes via the flipped learning approach. *Procedia -Social and Behavioral Sciences*, 232, 122-129.
- Steffensen, M. S., & Cheng, X. (1996). Meta-discourse and text pragmatics: How students write after learning about meta-discourse. *ERIC Document Reproduction Service*, No. ED400709
- Stockwell, G. (2010). Using mobile phones for vocabulary activities: Examining the effect of platform. *Language Learning & Technology*, 14(2), 95-110.
- Strayer, J. F. (2012). How learning in an inverted classroom influences cooperation, innovation and task orientation. *Learning Environments Research*, 15, 171-193.
- Sung, K. (2015). A case study on a flipped classroom in an EFL content course. *Multimedia-Assisted Language Learning*, 18(2), 159-187.
- Rysová, K., Rysová, M., Novák, M., Mírovský, J., & Hajičová, E. (2019). EVALD - A pioneer application for automated essay scoring in Czech. *The Prague Bulletin of Mathematical Linguistics*, 113(1), 9-30.
- Webb, M., & Doman, E. (2016). Does the flipped classroom lead to increased gains on learning outcomes in ESL/EFL contexts? *CATESOL Journal*, 28(1), 39-67.
- Xu, H. M. (2001). *Metadiscourse: Across-cultural Perspective*. Southeast University Press.
- Ying, S. (2007). An analysis of discourse markers used by non-native English learners: Its implication for teaching English as a foreign language. *Intercultural Communication Studies*, 19, 51-83.
- Yoon, S. Y. (2016). Exploring learner perspectives on learner autonomy for blended learning in EFL conversation classes. *STEM Journal*, 17(1), 197-220.
- Yoon, S. Y., & Kim, N. Y. (2020). To flip or not to flip: A comparative study on flipped, blended, and conventional learning in EFL Korean context. *The Journal of Asia TEFL*, 17(4), 1363-1376. <http://dx.doi.org/10.18823/asiatefl.2020.17.4.13.1363>
- Zhang, M. (2019). Exploring personal metadiscourse markers across speech and writing using cluster analysis. *Journal of Quantitative Linguistics*, 26(4), 267-286.

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