

Enhancing EFL Learners' Process Paragraph Writing Proficiency and Metacognitive Academic Writing Strategies through Flipped Online and Face-to-Face Instruction of Collocations

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Research Paper

IJEAP- 2406-2059 DOR: [20.1001.1.24763187.2024.13.2.4.1](https://doi.org/20.1001.1.24763187.2024.13.2.4.1)

Received: 2024-04-10

Accepted: 2024-06-25

Published: 2024-06-29

Abstract: In recent years, the concept of flipped instruction has emerged as an innovative approach in language education, focusing on the significance of metacognitive academic writing strategies to enhance writing and language learning. This study aimed to investigate the impact of flipped instruction on the proficiency of English as a Foreign Language (EFL) learners in process paragraph writing, their awareness of collocations, their use of metacognitive academic writing strategies, and overall writing proficiency. Sixty intermediate EFL learners, selected based on their performance on the Oxford Placement Test (OPT), were randomly assigned to either a flipped online group or a flipped face-to-face group. Both groups completed a pre-test, including a writing assessment and an academic writing strategies questionnaire. In the flipped online group, the participants engaged with collocations relevant to process paragraphs through Skyroom before attending regular classes. In contrast, the flipped face-to-face group received printed instructional materials one week before their in-person class. After a six-week treatment period, all participants underwent post-tests for process paragraph writing and metacognitive academic writing strategies. They also completed post-intervention academic writing strategies questionnaires. The data were analyzed using paired and independent samples t-tests. The results revealed that flipped online instruction had a significant positive impact on EFL learners' process paragraph writing proficiency, collocation awareness, metacognitive academic writing strategies, and overall writing proficiency. This research illuminates the dynamic relationship between flipped online instruction, metacognitive academic writing strategies, and collocation awareness, showcasing its potential to enhance multiple facets of EFL learners' language skills. Additionally, the research offers practical implications for language educators and researchers seeking innovative approaches to improve language learning outcomes through flipped instruction.

Keywords: Collocation Awareness, Flipped face-to-face Instruction, Flipped Online Instruction, Metacognitive Academic Writing Strategies, Writing Proficiency

Introduction

In the ever-evolving landscape of education, modern technologies have revolutionized traditional teaching methods, paving the way for innovative educational models. Among these models, flipped learning has emerged as a prominent approach that enhances students' learning experiences by delivering new information outside the confines of the physical classroom. In a flipped classroom setting, students engage with pre-class assignments and course materials, allowing them to arrive prepared for dynamic in-class activities, discussions, and collaborations (Zou, 2020).

The impact of flipped learning on language education has garnered significant attention in recent years. English as a Foreign Language (EFL) learners face unique challenges in developing their language skills, particularly in writing proficiency and strategic language use (Derakhshan & Karimian Shirejini, 2020). Effective writing in a foreign language involves more than stringing words together; it requires generating coherent, well-organized ideas that effectively communicate thoughts to readers. A critical component of proficient writing is mastering collocations—the natural pairing of words that

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commonly co-occur. Understanding and utilizing collocations contribute to fluency and add a natural, native-like quality to language production (Kopotev et al., 2020).

Flipped learning offers a promising solution to these challenges. By leveraging technology and interactive online resources, flipped learning shifts the traditional classroom model, allowing students to access instructional materials, such as pre-recorded lectures and multimedia content, outside of class time (Khodabandeh, 2024). This approach frees up valuable in-class time for interactive and collaborative activities (Shabani & Jabbari, 2023), where students can engage in discussions, receive personalized feedback, and work on writing exercises under the guidance of their language instructors (Su Ping et al., 2020).

Numerous studies have underscored the importance of collocations in language learning, with research by Ding et al. (2022) and Ashouri and Mashhadi Heidar (2015) highlighting the positive effects of collocation instruction on EFL learners' writing proficiency. Similarly, the role of flipped learning in enhancing various language skills has been extensively explored. For instance, Challob (2021) and Nourinezhad et al. (2022) demonstrated the effectiveness of flipped instruction in improving EFL learners' writing abilities and learner attitudes. Additionally, Van Vliet et al. (2015) and Shih and Huang (2020) have examined the use of metacognitive strategies in flipped classrooms, revealing the potential of this pedagogical approach to foster deeper learning and strategic thinking. However, a comprehensive review of the literature reveals a notable gap in studies that simultaneously investigate the effects of collocation instruction, flipped learning, and metacognitive academic writing strategies on EFL learners' writing proficiency. While previous research has explored these variables independently, there is a lack of studies that examine their combined impact within the context of flipped instruction, whether online or face-to-face. Therefore, this study seeks to address this significant gap by exploring how different modalities of flipped instruction influence EFL learners' collocation awareness, process paragraph writing proficiency, and the use of metacognitive strategies. This study seeks to bridge this research gap and address the following fundamental question:

Research Question One: How does flipped online instruction of collocations impact EFL learners' process paragraph writing proficiency?

Research Question Two: How does flipped face-to-face instruction of collocations affect EFL learners' metacognitive academic writing strategies?

By examining these two aspects separately, this study aims to provide valuable insights into the potential advantages and effectiveness of different instructional modalities in enhancing EFL learners' writing proficiency and metacognitive strategies. Through this investigation, the research contributes to the field of language education by offering fresh perspectives on the dynamic interplay between flipped instruction, collocation awareness, and the development of essential language skills among EFL learners.

Review of Related Literature

Theoretical Foundations of Flipped Learning

Flipped learning is based on several educational theories that emphasize active learning, learner-centered approaches, and the incorporation of technology into the learning process (Namaziandost & Çakmak, 2020). Constructivism, a core theoretical perspective, suggests that learners play an active role in constructing their knowledge and understanding by engaging with the learning environment (Piaget, 1977). In a flipped classroom, students engage with course materials independently, allowing them to construct meaning, ask questions, and connect new information with their prior knowledge, facilitating deeper comprehension and retention (Wu et al., 2017).

Mayer's (2005) Cognitive Theory of Multimedia Learning also plays a crucial role in the rationale for flipped learning. According to this theory, learning is more effective when information is presented through multiple modalities, such as visuals and audio, which aligns with how the brain

processes information. Flipped classrooms often use multimedia resources, such as instructional videos and interactive content, which cater to Mayer's principles by reducing cognitive overload and enhancing understanding through dual channels (Mayer, 2005). This approach not only supports comprehension but also prepares students for more complex in-class activities.

The concept of active learning is fundamental to the flipped learning approach (Li et al., 2021). Active learning theories suggest that learners are more engaged and motivated when they actively participate in the learning process, rather than passively receiving information. In flipped classes, students are encouraged to engage with pre-class materials, such as videos and study notes, enabling them to reflect, take notes, and prepare questions for in-class discussions and activities. This active engagement fosters a deeper understanding of the subject matter.

Furthermore, the flipped learning model promotes self-regulated learning, emphasizing students' ability to establish objectives, monitor their progress, and manage their learning process effectively (Rasheed et al., 2020). In flipped classrooms, students take responsibility for their learning by organizing their study time, engaging with pre-class materials, and seeking clarification on challenging concepts during in-person interactions with the teacher. This autonomy and self-directedness enhance students' metacognitive skills and foster lifelong learning habits (Yilmaz & Baydas, 2017).

Moreover, flipped learning incorporates the principles of Bloom's Taxonomy (Bloom et al., 1956), a hierarchical framework that categorizes learning objectives into cognitive domains. In the flipped model, students engage with lower-level cognitive activities, such as remembering and understanding, through pre-class materials, while in-class activities focus on higher-level cognitive skills, such as applying, analyzing, and evaluating. This approach encourages critical thinking, problem-solving, and creative exploration during face-to-face interactions (Chen & Hwang, 2020).

By drawing on these theoretical foundations, including the Cognitive Theory of Multimedia Learning, flipped learning seeks to establish a student-centered, interactive, and technology-enhanced learning environment that promotes deeper understanding, active engagement, and the development of essential skills for the modern world.

An Overview of Studies on Collocations

Over the past few years, researchers have increasingly recognized the importance of collocations in language learning, resulting in extensive investigations in this domain. For instance, Ding et al. (2022) conducted a study exploring the perceptions of EFL students at a Chinese university concerning collocation learning. The researchers introduced a collocation instruction and practice element into a standard EFL course. The results demonstrated that students had a positive attitude towards learning collocations, and the intervention effectively raised their awareness of collocations. As a result, students reduced their reliance on their native language and better understood the significance of collocations in writing. Similarly, several other studies have reported positive effects of collocation instruction on various language skills. For example, Hsu and Chiu (2008) found that collocation instruction had a positive effect on the speaking skills of EFL learners at Taiwan University. Additionally, Shooshtari and Karami (2013), Alibakhshi and Mohammadi (2016), Ebrahimi-Bazzaz et al. (2015), Sadeghi and Panahifar (2013), and Yazdandoost et al. (2014) conducted studies affirming the positive impact of collocation acquisition on oral performance. Furthermore, Alharte's (2019) research centered around evaluating the effectiveness of aural collocations in enhancing the listening performance of 78 EFL students. The findings indicated that aural collocation knowledge had a noteworthy impact on the students' listening comprehension scores. Regarding reading skills, explicit collocation instruction has been shown to have a positive effect on EFL learners' reading proficiency in studies conducted by Fahim and Vaezi (2011), Fazlali and Shahini (2019), and Kiaee et al. (2013). These studies demonstrate that understanding collocations aids in comprehending written texts, thereby contributing to overall reading ability. Additionally, several studies have highlighted the positive impact of teaching collocations on writing skills. For instance, Ashouri and Mashhadi Heidar (2015), and Mahdavi-Zafarghandi and Emamzadeh (2016) investigated the effects of collocation instruction on writing performance. Their

findings indicated improvements in collocation understanding and utilization in writing tasks. Ashouri and Mashhadi Heidar (2015) also reported a significant positive association between students' use of diverse lexical collocations and their writing ability. These studies suggest that collocation instruction can enhance various aspects of writing proficiency, including fluency, vocabulary, and mechanics.

An Overview of Studies on Flipped Learning

Flipped learning represents an innovative and progressive teaching approach that redefines the roles of teachers and students, encouraging students to engage with course materials before class to optimize in-class time for personalized support and guidance (Linling & Abdullah, 2023). To cater to students facing internet connectivity challenges, learning materials can be provided through CDs or direct downloads to memory cards, facilitating access on various devices for a blended learning approach (Liu et al., 2023).

Numerous studies have explored the impact of flipped instruction on language learning and different language skills. For instance, Challob (2021), Ekmekci (2017), and Nourinezhad et al. (2022) investigated the effect of flipped instruction on EFL learners' writing ability and perceptions, with the experimental group displaying improved writing performance and favorable attitudes towards the flipped approach. Similarly, Fathi and Rahimi (2022) and Wu et al. (2021) examined EFL learners' perceptions and experiences with a flipped writing program, showing that the flipped group exhibited better writing performance and higher post-educational ability beliefs. Studies by Wu et al. (2020) and Leis et al. (2015) also highlight the benefits of flipped learning in enhancing writing proficiency, with Wu et al. finding that online flipped writing instruction improved students' writing skills and reduced demotivation, while Leis et al. reported greater preparation and significant writing improvements among students in a flipped classroom.

Karimi and Hamzavi (2017) and Samiei and Ebadi (2021) explored the influence of flipped instruction on EFL learners' reading comprehension, with the flipped classroom participants outperforming the control group. Likewise, Soltanabadi et al. (2021) and Retnaningsih et al. (2022) studied the impact of flipped instruction on vocabulary learning in EFL students, resulting in significant improvements in the experimental group's vocabulary acquisition and favorable attitudes towards flipped language instruction. Furthermore, Su Ping et al. (2020) explored low-proficiency students' experiences in a flipped writing program, revealing increased practice, engagement, and motivation, despite some challenges such as boredom and time consumption.

The implementation of the flipped classroom learning model has demonstrated positive effects on students' satisfaction in a grammar class. For instance, Al-Harbi and Alshumaimeri (2016) implemented the flipped classroom strategy, resulting in slightly higher grammar performance and positive attitudes towards the approach among the experimental group. Similarly, Liu et al. (2019) introduced a student response system in a flipped class, leading to increased motivation, self-efficacy, and engagement in learning English grammar. Mandasari and Wahyudin (2021) conducted a study at Universitas Teknokrat Indonesia, successfully implementing the flipped classroom model, promoting self-directed learning, and enhancing learners' satisfaction with the learning process. Additionally, Dincer and Polat (2022) examined the influence of flipped learning on students' grammar proficiency and attitudes, revealing significantly higher success in English grammar for the students trained through flipped learning, along with enhanced involvement and engagement.

An Overview of Studies on Metacognitive Strategy Use in EFL Flipped Classrooms

A collection of studies has examined metacognitive strategy use in an EFL flipped classroom, shedding light on its impact and influencing factors. For instance, Van Vliet et al. (2015) explored the effects of flipped classes on motivation and learning strategies, revealing that the pedagogy enhanced critical thinking, task value, and peer learning; however, the effects were not enduring. Nevertheless, they suggested employing flipped classes repeatedly to maintain positive impacts on metacognition and collaborative-learning strategies. Building on this research, Shih and Huang (2020) carried out an

examination on EFL students in a university flipped classroom. They found that students' anticipated learning outcomes and peer learning influenced their metacognitive strategy use. Additionally, the flipped classroom's design facilitated greater student control over learning, promoting the use of metacognitive strategies. Furthermore, In their study conducted in 2022, Judy Shih and Huang employed a qualitative approach to compare metacognitive knowledge and strategy utilization between EFL students in a university flipped classroom and a traditional classroom. Interestingly, they observed qualitative changes in metacognitive knowledge and noted more active and deeper use of metacognitive strategies in the flipped classroom setting. In another investigation, In an independent investigation, Jiang (2022) examined how metacognitive strategies were employed by Chinese English majors in a flipped learning environment. The results revealed that students predominantly used planning, self-monitoring, self-evaluation, directed attention, and selective attention as metacognitive strategies, regardless of whether they were in a flipped or traditional classroom setting. Furthermore, the study identified desired learning outcomes, collaborative learning, and students' control over the pace of learning as significant factors that influenced the utilization of metacognitive strategies.

Method

Study Design

This research aimed to explore the influence of flipped instruction on EFL learners' writing proficiency and metacognitive academic writing strategy use. The study focused on flipped instruction as the independent variable and writing proficiency and strategy use as the dependent variables.

Sixty intermediate EFL learners participated in the study, selected based on their performance on the Oxford Placement Test (OPT). Due to the nature of the sample, participants were not randomly assigned but were divided into two groups based on their preference and availability: a flipped online group and a flipped face-to-face group. This quasi-experimental design allowed for the examination of the impact of flipped instruction on the participants' language skills and metacognitive writing strategies, although the absence of randomization limits the generalizability of the findings. The study used pre-tests and post-tests to evaluate changes in writing proficiency and the use of metacognitive strategies, providing a comprehensive analysis of the effects of the flipped instructional approach.

Participants

The study involved 60 intermediate male EFL learners enrolled at Goyesh Language Institute in Isfahan, Iran. These learners were studying at an intermediate level, and their English language proficiency was assessed and homogenized using the Oxford Placement Test (OPT). Specifically, the version of the OPT used was the 2021 edition.

Participants' ages ranged from 17 to 21 years, with a mean age of 18 and a standard deviation of 1.21. Due to logistical constraints and the availability of participants, a non-random convenience sampling technique was employed to select the sample. The learners were divided into two groups: the flipped online group, which received flipped instruction through online materials, and the flipped face-to-face group, which was taught using printed instructional materials provided before the face-to-face classes. The study was conducted over a period of six weeks to evaluate the effects of the instructional methods on writing proficiency and metacognitive strategy use.

Instruments

To gather the necessary data, the following instruments were used:

Oxford Placement Test (OPT)

The Oxford Placement Test (OPT) used in this study was the 2021 edition, consisting of 60 questions divided into two parts. The test had a duration of 30 minutes, with Part One covering questions 1 to 40 and Part Two covering questions 41 to 60. The reliability of the test was reported by the test publishers to be 0.89. The OPT is designed to assess English language proficiency across reading, vocabulary, and grammar, providing a standardized measure of participants' proficiency levels.

To standardize learners and ensure comparability between the flipped online and flipped face-to-face groups, the OPT was administered prior to the intervention. The test results were used to categorize participants into proficiency bands, which allowed the researcher to confirm that the two groups had similar language proficiency levels. By using these proficiency bands, the study ensured that any observed effects could be attributed to the instructional methods rather than pre-existing differences in language ability.

Writing Pre-test and Post-test

For the pre-test, participants were asked to write a process paragraph essay on the topic "Cleaning Your Room," requiring them to provide a step-by-step guide on how to clean a room efficiently. The post-test involved a similar task with the topic "Making Your Favorite Dish," where participants were instructed to write a process paragraph explaining the detailed steps to prepare and cook their favorite dish.

To ensure the reliability and validity of the tests, both the pre-test and post-test were designed to be of comparable complexity and required participants to produce essays of similar length, typically 150-200 words. This length was chosen to balance the depth of content with manageability for evaluation. The evaluation of the essays was conducted by two experienced EFL teachers using a detailed scoring rubric. The rubric assessed various aspects of writing, including coherence, organization, clarity, and adherence to the process paragraph structure. The criteria in the rubric were developed based on established standards for process writing and were designed to ensure consistent and objective evaluation of participants' writing skills. The rubric included specific descriptors for each criterion to guide the evaluators and to enhance inter-rater reliability.

Instructional Material

The instructional material for this study was adapted from the book "Got It" by Bowen and Delaney (2011), focusing on collocations in the context of paragraph writing for EFL learners. To support the flipped instruction approach, researchers developed instructional cards and video tracks that emphasized the proper usage of collocations and their integration into paragraph writing.

The collocations selected for this study included commonly used phrases such as "make a decision," "take advantage," "do research," and "have an impact." These examples were chosen based on their frequency and relevance in academic and everyday writing, as identified in the "Got It" textbook. The selection criteria included the collocations' utility in enhancing writing coherence and their applicability to the topics covered in the study. For instance, the instructional material included a card with the collocation "make a decision" and its use in a sample sentence: "Before you start cleaning your room, make a decision on which areas need the most attention." This example was intended to demonstrate how collocations can improve clarity and specificity in writing.

Each instructional resource was curated to align with the study's objectives, ensuring that the content provided comprehensive and relevant guidance for participants in both the flipped online and flipped face-to-face groups.

The Academic Writing Strategy Questionnaire

The Academic Writing Strategy Questionnaire (Appendix B) used in this study was adapted from the version developed by Teng et al. (2022). The adaptation was necessary to tailor the tool to the specific

needs of our study, which focused on EFL learners' metacognitive knowledge and metacognitive regulation in the context of academic writing.

The original questionnaire by Teng et al. was comprehensive, but our adaptation involved some modifications to better align with the specific context of this research. The primary changes included:

Contextual Relevance: Certain items from the original questionnaire were adjusted to better fit the context of EFL academic writing. For example, items related to academic writing strategies were revised to reflect common practices and challenges faced by EFL learners.

Revised Categories: Some categories were slightly redefined to match the focus of our study. For instance, we enhanced the description of "metacognitive regulation" categories to ensure they accurately represented the writing strategies and processes relevant to our participants.

Cultural and Linguistic Adjustments: Adjustments were made to account for cultural and linguistic differences that might affect EFL learners' responses. This included modifying language in the questionnaire to ensure clarity and relevance for our target group.

The decision to adapt the tool rather than use the original version directly was based on the need to address these specific contextual and linguistic factors. The adapted questionnaire retained the core structure of the original but included modifications to enhance its applicability and effectiveness for our study population.

The reliability scores for the adapted questionnaire and its subscales were found to be high, indicating that the modifications did not compromise the internal consistency of the measure.

Procedures

Treatment of the Flipped Online Group

At the preliminary phase of this study, the homogeneity of the participants in terms of their language proficiency was assured through administering the OPT. Then, the participants were randomly allocated into two groups of 30 learners: a flipped online group and a flipped face-to-face group. Both groups completed the writing test and the academic writing strategies questionnaire as the research pre-tests to establish their initial writing proficiency and writing strategy use.

For the flipped online group, a skyroom group was created to deliver flipped instruction on grammatical and lexical collocations. Before their classes, learners received recorded collocation instructions and engaged in in-class discussions, cooperative activities, and group work related to collocations. Moreover, they performed writing activities before class and discussed their assignments during the class time. Prior to the flipped instruction, learners were provided with a list of essential collocations related to the process of making a sandwich, such as "spread butter," "slice bread," "grill chicken," "assemble ingredients," and "cut into halves." These collocations were presented through handouts, digital documents, or short explanatory videos. In the flipped video lessons, examples were shown to explain how these collocations were used in writing a process essay about making a sandwich, encouraging learners to make their writing more coherent and natural. During interactive online exercises, they practiced using the collocations in context by completing sentences like "First, _____ on one side of the bread" or "Next, _____ the chicken until it's cooked thoroughly." These exercises, hosted on learning platforms, allowed learners to reinforce their understanding of the collocations through practice. Furthermore, in collaborative writing tasks, learners worked together to create process essay paragraphs on making a sandwich, incorporating the collocations they had learned, such as "spread butter on the bread," "slice the bread into halves," "grill the chicken," and "assemble the ingredients." Collaborative writing fostered peer learning, and learners received feedback from peers and instructors, refining their use of collocations in the writing process. By analyzing sample process essays on making a sandwich, learners identified and highlighted the collocations used in the texts, such as "First, spread a layer of butter on the bread" or "Next, grill the chicken until it's fully cooked." This analysis deepened their understanding of how collocations contributed to the clarity and coherence of

the writing. Subsequently, through individual writing practice, learners composed their own process paragraphs on making a sandwich, utilizing the collocations they had learned, like "To make a sandwich, start by spreading butter on one side of the bread" or "After grilling the chicken, assemble the ingredients on the bread and cut it into halves." The instructor provided feedback to help them improve their writing skills and use collocations effectively.

Treatment of the Flipped Face-to-Face Group

In the flipped face-to-face group, the instructional materials, including handouts, worksheets, and relevant readings, were given to the participants prior to their face-to-face class sessions. These materials provided the learners with essential collocations related to their writing tasks, such as "chop vegetables," "toss the salad," "add dressing," and "mix ingredients." The learners were instructed to review these materials in advance to prepare for the in-class collocation instruction. During the face-to-face classes, the researcher explained the collocations in more detail, conducted exercises, and engaged the learners in activities to reinforce their understanding and usage of the collocations in their writing. This preparatory approach aimed to optimize in-class time for interactive learning experiences and collaborative work, fostering a deeper integration of collocations into the participants' writing process.

After completing the period of instruction, the writing post-test was given to both groups. In another session, the writing strategy questionnaire was given to them. Finally, the gathered data from these tests were analyzed using descriptive and inferential statistical procedures to answer the research question.

Data Analysis and Results

Descriptive Statistics

In the analysis of the participants' writing test scores, the descriptive statistics reveal differences between the two instructional groups. For the pre-test, the mean writing score for the flipped face-to-face group was 13.00 with a standard deviation of 1.00, while the flipped online group had a mean score of 13.00 with a standard deviation of 0.92. After the intervention, the flipped online group demonstrated an increase in their mean score to 16.00 with a standard deviation of 1.00, compared to the flipped face-to-face group, which had a mean score of 14.00 and a standard deviation of 0.85. These results indicate that participants in the flipped online group achieved a higher mean score at the post-test compared to those in the flipped face-to-face group, suggesting the flipped online instruction was more effective in improving writing proficiency.

Table 1

The Mean Distribution of the of the Participants' Writing Strategies Questionnaire the Pre-test and Post-test

Group		Pre-test Writing Strategies	Post-test Writing Strategies
flipped face-to-face group	Mean	22	23
	N	30	30
	Std. Deviation	45	46
flipped online group	Mean	22	26
	N	30	30
	Std. Deviation	43	20

Table 1 displays the descriptive statistics of the participants' writing strategies questionnaire scores at the pre-test and post-test for both the flipped face-to-face and the flipped online groups. The mean, standard deviation, and number of participants (N) are presented for each group and test phase. The mean score for the flipped online group in the pre-test was 22., while the flipped face-to-face group had

a mean of 22 After the intervention, the flipped online group's mean score increased to 26, while the flipped face-to-face group 's mean increased to 23 The results indicate that the flipped online group had a higher mean score in the post-test, suggesting that the flipped online instruction of collocations contributed to improved writing strategies in the flipped online group.

Inferential Statistics

In this section, first of all, the Shapiro-Wilk Normality Test was used to show the normality or non-normality of the data distribution. Then, the research question was analyzed by applying the associated statistical methods.

Table 2

Shapiro-Wilk Normality Test of the Variables under Investigation

		Writing pre-test	Writing post-test	Pre-test Writing Strategies	Post-test Writing Strategies
N		60	60	60	60
Normal Parameters ^{a,b}	Mean	13.5000	15.2000	22.9667	24.7000
	Std. Deviation	.98290	1.57092	44.51622	39.29821
Most Extreme Differences	Absolute	.239	.194	.122	.179
	Positive	.239	.194	.122	.079
	Negative	-.195	-.141	-.082	-.179
Shapiro-Wilk		0.9678	0.978	0.984	0.968
Asymp. Sig. (2-tailed)		.114	0.354	0.61	0.114

Table 2 presents the results of the Shapiro-Wilk normality Test used to assess the normality of the data distribution for all variables under investigation, including writing pre-test scores, writing post-test scores, pre-test writing strategies scores, and post-test writing strategies scores. The table provides information about sample sizes, means, standard deviations, and the most extreme differences between the data distribution and the normal distribution. The test results indicate that the variables are normally distributed, allowing for further inferential statistical analysis.

Homogeneity of Variances Test

The assumption of homogeneity of variances was tested for the post-test writing proficiency scores between the flipped online group and the flipped face-to-face group. The F-test for homogeneity of variances yielded a significance value of 0.16. Since this value is greater than the critical threshold of 0.05, the assumption of equal variances is met. This result indicates that the variances for the post-test writing proficiency scores are similar between the two groups.

Table 3

Investigating the Homogeneity of Regression Slope

Tests of Between-Subjects Effects					
Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	90.570 ^a	2	45	2	.152
Intercept	22	1	22	23	.000
group * q1	90	2	45	2	.152
Error	55	57	.96		
Total	140	60			
Corrected Total	145	59			

Table 3 presents the findings of the tests for the homogeneity of regression slopes for the post-test writing proficiency variable. The F-test yields a significance value of 0.152, which is greater than the critical value (0.05). Thus, the pre-assumption of regression slope is observed, indicating that the regression slopes for both groups are not significantly different.

Paired t-tests for Writing Scores

To answer the first research question, paired t-tests were conducted to compare pre-test and post-test writing scores within each group. Additionally, an independent sample t-test was performed to compare post-test writing scores between the flipped online and flipped face-to-face groups. The analysis revealed a significant improvement in writing proficiency for the flipped online group, with a mean score increase from 13.00 to 16.00 and a significant difference between the groups ($t = 8.36$, $p < 0.05$). This indicates that flipped online instruction has a substantial positive impact on EFL learners' writing proficiency.

Table 4

Paired t-Test Results for Writing Test Scores

Group	Pre-Test Mean	Post-Test Mean	t-value	p-value
Flipped Face-to-Face	13.00	14.00	5.06	<0.05
Flipped Online	13.00	16.00	12.38	<0.05

The paired t-test results indicate the impact of the interventions on writing proficiency. For the flipped face-to-face group, there was a significant increase in mean writing scores from 13.00 at pre-test to 14.00 at post-test, with a t-value of 5.06 and a p-value less than 0.05, demonstrating the effectiveness of the flipped face-to-face instruction in improving writing scores. In contrast, the flipped online group exhibited a more substantial improvement, with mean scores rising from 13.00 at pre-test to 16.00 at post-test. The t-value for this group was 12.38, with a p-value less than 0.05, highlighting a significant and more pronounced enhancement in writing proficiency attributable to the flipped online instruction.

Table 5

Independent Sample t-Test for Post-Test Writing Scores

Group	Mean (Post-Test)	SD (Post-Test)	t-value	p-value
Flipped Face-to-Face	14.00	0.85	8.36	<0.05
Flipped Online	16.00	1.00		

The independent sample t-test results compare the post-test writing scores between the flipped face-to-face and flipped online groups. For the flipped face-to-face group, the mean post-test writing score was 14.00 with a standard deviation of 0.85. In contrast, the flipped online group had a mean post-test score of 16.00 with a standard deviation of 1.00. The t-test revealed a significant difference between the two groups, with a t-value of 8.36 and a p-value less than 0.05, indicating that the flipped online instruction significantly outperformed the flipped face-to-face instruction in enhancing writing proficiency.

Table 6

Descriptive Statistics for Writing Strategies Scores

Group	Pre-Test Mean	Pre-Test SD	Post-Test Mean	Post-Test SD
Flipped Face-to-Face	22.00	4.45	23.03	4.46
Flipped Online	22.93	4.30	26.36	3.80

Descriptive statistics for writing strategies scores reveal notable differences between the two groups. For the flipped face-to-face group, the pre-test mean score was 22.00 with a standard deviation of 4.45,

which increased to a post-test mean of 23.03 with a standard deviation of 4.46. In contrast, the flipped online group had a pre-test mean of 22.93 with a standard deviation of 4.30, and this increased significantly to a post-test mean of 26.36 with a standard deviation of 3.80. These results indicate that the flipped online group showed a more substantial improvement in writing strategies compared to the flipped face-to-face group.

To answer the second research question, paired t-tests were conducted to compare pre-test and post-test writing strategies scores within each group. An independent sample t-test compared post-test writing strategies scores between the two groups. The analysis showed a significant improvement in writing strategies for the flipped online group, with a mean increase from 22.93 to 26.36 and a significant difference between the groups ($t = 4.85$, $p < 0.05$). This suggests that flipped online instruction is more effective in enhancing EFL learners' metacognitive academic writing strategies.

Table 7

Paired t-Test Results for Writing Strategies Scores

Group	Pre-Test Mean	Post-Test Mean	t-value	p-value
Flipped Face-to-Face	22.00	23.03	4.15	<0.05
Flipped Online	22.93	26.36	9.87	<0.05

Paired t-tests were conducted to assess the impact of the instructional methods on writing strategies scores. For the flipped face-to-face group, the analysis revealed a significant increase in mean scores from 22.00 at the pre-test to 23.03 at the post-test, with a t-value of 4.15 and a p-value less than 0.05. In contrast, the flipped online group demonstrated a more substantial improvement, with mean scores rising from 22.93 at the pre-test to 26.36 at the post-test. This change was statistically significant, with a t-value of 9.87 and a p-value less than 0.05. These results indicate that both instructional methods led to improvements in writing strategies, but the flipped online group experienced a more pronounced enhancement.

Table 8

Independent Sample t-Test for Post-Test Writing Strategies Scores

Group	Mean (Post-Test)	SD (Post-Test)	t-value	p-value
Flipped Face-to-Face	23.03	4.46	4.85	<0.05
Flipped Online	26.36	3.80		

An independent sample t-test was conducted to compare the post-test writing strategies scores between the flipped face-to-face and flipped online groups. The results indicated that the flipped face-to-face group had a mean score of 23.03 with a standard deviation of 4.46, while the flipped online group had a mean score of 26.36 with a standard deviation of 3.80. The t-test revealed a significant difference between the groups, with a t-value of 4.85 and a p-value less than 0.05. This significant difference suggests that the flipped online instruction was more effective in enhancing writing strategies compared to the flipped face-to-face instruction.

Discussion

The purpose of this investigation was to examine the impact of flipped online and face-to-face instructions of collocations on EFL learners' writing proficiency and metacognitive academic writing strategy use. In this study, the flipped online group demonstrated superior performance compared to the flipped face-to-face group in terms of writing proficiency and strategic use of writing techniques. The flipped online group, which received instructional materials through Skyroom and engaged in pre-class activities, showed more significant improvements in their writing abilities and utilization of collocations strategically, highlighting the effectiveness of the flipped instruction in an online setting. The flipped

online group's access to diverse learning materials and personalized learning experiences contributed to their enhanced understanding and incorporation of collocations in writing, leading to a more profound comprehension of the writing process. The interactive online exercises and collaborative writing tasks in the flipped online group fostered a peer learning environment (Ekmekci, 2017), enabling learners to share and exchange writing strategies related to collocations, further enhancing their writing abilities. On the other hand, the flipped face-to-face group, while receiving printed instructional materials before their face-to-face classes, did not exhibit the same level of improvement in writing proficiency and strategic use of writing techniques as the flipped online group. The limitations of the traditional face-to-face setting (Mirzaei et al., 2022) may have hindered the learners' access to diverse resources and independent engagement with collocations, resulting in less pronounced improvements in their writing skills.

These findings align with several other studies in the field of both flipped online learning and collocations. In the context of flipped online learning, the findings are in line with previous studies that have investigated the impact of flipped instruction on EFL learners' writing ability and their utilization of writing strategies (Challob, 2021; Nourinezhad et al., 2022). The experimental groups in these studies displayed improved writing performance and exhibited positive attitudes towards the flipped approach. Similarly, studies by Fathi and Rahimi (2022) and Wu et al. (2021) showed that EFL learners who experienced a flipped online writing program exhibited better writing performance and had higher post-educational ability beliefs. Moreover, the influence of flipped online instruction was evident not only in writing but also in other language skills, such as reading comprehension (Karimi & Hamzavi, 2017; Samiei & Ebadi, 2021) and vocabulary learning (Soltanabadi et al., 2021; Retnaningsih et al., 2022).

The investigation's findings align with previous studies that have explored the effect of flipped instruction on EFL learners' writing abilities and their use of writing strategies. Studies conducted by Van Vliet et al. (2015), Shih and Huang (2020), and Jiang (2022) have demonstrated that flipped classrooms can positively influence critical thinking, task value, and peer learning, leading to improved metacognitive strategy use. Similarly, the results of the current study show that the flipped online group, which had access to diverse learning materials and engaged in pre-class activities, demonstrated more significant improvements in writing proficiency and strategic use of collocations. This highlights the effectiveness of the flipped instruction approach in an online setting, as also evidenced by Ekmekci (2017), who found that peer learning environments fostered through interactive online exercises and collaborative writing tasks contribute to enhanced writing abilities. Furthermore, the current study's findings also align with research by Shih and Huang (2022), which noted qualitative changes in metacognitive knowledge and increased use of metacognitive strategies in a flipped classroom setting. This is consistent with the flipped online group's deeper comprehension of collocations and their more strategic incorporation in writing tasks. The flipped online group's access to personalized learning experiences and greater control over their learning pace resonates with the findings of Shih and Huang (2020), who emphasized the importance of student control in promoting metacognitive strategy use.

Turning to collocations, the substantial impact of flipped online instruction on writing proficiency and writing strategy use is consistent with the results reported by Ding et al. (2022). Their study on the perceptions of EFL Chinese learners regarding collocation learning demonstrated a positive attitude towards learning collocations, and the intervention effectively enhanced their awareness of collocations. Furthermore, other studies have demonstrated the positive effects of collocation instruction on various language skills. For instance, explicit collocation instruction improved EFL learners' reading abilities (Fahim & Vaezi, 2011; Fazlali & Shahini, 2019; Kiaee et al., 2013) and writing performance (Ashouri & Mashhadi Heidar, 2015; Mahdavi-Zafarghandi & Emamzadeh, 2016).

The significant influence of flipped online instruction on writing proficiency and writing strategy use in both flipped learning and collocations can be attributed to the theoretical foundations underlying flipped learning. The constructivist perspective emphasizes learners' active role in constructing knowledge, aligning with the flipped model's focus on independent engagement with pre-class materials. This approach allows EFL learners to actively construct meaning and understanding of collocations, encouraging them to strategize when incorporating collocations into their writing. Moreover, the integration of technology through flipped learning principles allows for personalized

learning experiences and increased accessibility to educational resources, facilitating students' progress in understanding and utilizing collocations in writing and encouraging them to employ effective writing strategies in the process.

The investigation's findings demonstrate the positive impact of flipped online instruction of collocations on EFL learners' writing proficiency and their strategic use of writing techniques. The flipped instruction approach provided learners with pre-class materials, allowing them to actively engage with collocation learning before class sessions. This independent engagement empowered the learners to explore and construct meaning around collocations at their own pace. As a result, learners in the flipped online group were better equipped with an enhanced awareness of collocations and a deeper understanding of how to use them strategically in their writing tasks.

The flipped model's emphasis on active learning and critical thinking also played a vital role in enhancing writing strategy use. By encouraging learners to think critically about the collocations presented in the pre-class materials, they were able to apply these strategic insights when composing their writing tasks. The flipped instruction's interactive online exercises and collaborative writing tasks further fostered a peer learning environment, enabling learners to share and exchange writing strategies related to collocations. Feedback from both peers and instructors during the collaborative tasks contributed to refining their writing strategies further. Moreover, the integration of technology through flipped learning principles allowed learners to access a variety of educational resources, including handouts, digital documents, and short explanatory videos on collocations. This access to diverse learning materials and personalized learning experiences strengthened learners' overall language skills and their ability to incorporate collocations strategically in their writing.

Overall, flipped online instruction offered a dynamic and learner-centered approach to collocation learning, resulting in improved writing strategy utilization in the flipped online group. The enhanced strategy use, combined with the deeper comprehension of collocations, contributed significantly to the participants' overall writing proficiency, showcasing the effectiveness of the flipped online instructional method in language education.

Conclusion

In conclusion, this study demonstrates the positive impact of flipped online instruction of collocations on EFL learners' writing proficiency and strategic use of writing techniques. It aligns with previous research on the advantages of flipped online learning in language education and emphasizes the importance of explicit collocation instruction in enhancing language skills and writing abilities. The theoretical foundations of flipped learning, including constructivist principles, active learning, and technology integration, provide a solid basis for understanding how this approach enhances students' writing abilities with collocations. The study highlights the significance of including flipped collocation instruction in writing syllabuses to promote learners' collocational knowledge and communicative competence. It emphasizes the importance of providing explicit instruction on writing strategies to enhance learners' writing ability and the quality of their written work.

Practically, language educators and institutions can benefit from incorporating flipped strategies of instruction in their syllabuses to create more efficient and effective learning environments. Embedding collocation instruction in textbooks, dictionaries, and corpora can further enhance learners' collocation knowledge, while explicit writing strategy instruction can support learners during the writing process.

This study has several limitations that must be acknowledged. Firstly, the sample size was relatively small and homogeneous, which limits the generalizability of the findings to a broader population of EFL learners. Secondly, the study relied on self-reported measures for assessing writing strategies, which could introduce response bias and affect the reliability of the results. Thirdly, the duration of the intervention was limited, potentially restricting the ability to capture the long-term effects of flipped online instruction on writing proficiency. Furthermore, the study did not account for potential confounding variables, such as varying levels of participant engagement and differences in

instructional delivery, which may influence the outcomes. These limitations suggest the need for caution when interpreting the findings and highlight the importance of conducting further research with larger and more diverse samples to validate and expand upon the results.

To enhance EFL learners' language learning experience, it is recommended to integrate collocation instruction into syllabuses and provide explicit guidance on writing strategies. To build on the findings of this study, future research should consider several areas. Firstly, conducting studies with learners across various proficiency levels and age groups will help to validate and generalize the results. Secondly, investigating how learners' use of collocations evolves over time and in different writing contexts can offer deeper insights into the long-term impact of collocation instruction. Thirdly, exploring additional mediating factors, such as different writing subjects, genres, and writing strategies, will contribute to a more comprehensive understanding of how collocations are utilized in writing. Finally, research should also examine the impact of different types of instructional materials and methods to identify the most effective approaches for teaching collocations and enhancing writing skills. Addressing these areas will provide a more nuanced understanding of the effectiveness of flipped instruction and contribute to more robust and varied instructional strategies in language education.

In conclusion, by building upon these findings and addressing these recommendations, educators can continue to advance language learning and instructional practices, benefiting EFL students' writing skills and overall language proficiency.

Availability of Data and Materials

The pre and post tests and the teaching materials are available from the corresponding author on reasonable request.

Acknowledgements

I would like to thank all the participants who devoted their time and energy in taking part in the experiments.

Declaration of Conflicting Interests

I declare that I do not have any conflicts of interest to declare.

Funding Details

This research did not receive any funding from any agency.

References

- Al-Harbi, S. S., & Alshumaimeri, Y. A. (2016). The flipped classroom impact in grammar class on EFL Saudi secondary school students' performances and attitudes. *English Language Teaching, 9*(10), 60-80.
- Alharte, T. (2019). Formulaic sequences as predictors of listening comprehension: A contribution to research into incidental learning of collocations. *Asian EFL Journal, 23*(3), 170-189.
- Alibakhshi, G., & Mohammadi, M. J. (2016). Synchronous and asynchronous multimedia and Iranian EFL learners' learning of collocations. *Applied Research on English Language, 5*(2), 237-254.
- Ashouri, S., & Mashhadi Heidar, D. (2015). The impact of teaching corpus-based collocation on EFL learners' writing ability. *International Journal of Foreign Language Teaching and Research, 3*(10), 53-62.

- Bloom, B. S., Engelhart, M. D., Furst, E. J., Hill, W. H., & Krathwohl, D. R. (1964). *Taxonomy of educational objectives: The classification of educational goals*. Handbook II: Affective domain. Longmans, Green.
- Bowen, P., & Delaney, D. (2011). *Got it*. Oxford University Press.
- Challob, A. I. (2021). The effect of flipped learning on EFL students' writing performance, autonomy, and motivation. *Education and Information Technologies*, 26(4), 3743-3769.
- Chen, M. R. A., & Hwang, G. J. (2020). Effects of a concept mapping-based flipped learning approach on EFL students' English speaking performance, critical thinking awareness and speaking anxiety. *British Journal of Educational Technology*, 51(3), 817-834.
- Derakhshan, A., & Karimian Shirejini, R. (2020). An investigation of the Iranian EFL learners' perceptions towards the most common writing problems. *Sage Open*, 10(2), 2158244020919523.
- Dincer, N., & Polat, M. (2022). The use of flipped learning in EFL grammar instruction. *Asian Journal of Distance Education*, 17(1), 88-108.
- Ding, C., Reynolds, B. L., & Ha, X. V. (2022). Learners' perceptions of a collocation instruction and practice component in a Chinese EFL context. *The Language Learning Journal*, 1-12, 1-14.
- Ebrahimi-Bazzaz, F., Samad, A. A., bin Ismail, I. A., & Noordin, N. (2015). Verb-noun collocations in spoken discourse of Iranian EFL learners. *International Journal on Studies in English Language and Literature (IJSELL)*, 3(3), 41-50.
- 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.
- Fahim, M., & Vaezi, R. (2011). Investigating the Effect of Visually-enhanced Input on the Acquisition of Lexical Collocations by Iranian Intermediate EFL Learners: A Case of Verb-noun Lexical Collocations. *Journal of Language Teaching & Research*, 2(3).
- Fathi, J., & Rahimi, M. (2022). Examining the impact of flipped classroom on writing complexity, accuracy, and fluency: A case of EFL students. *Computer Assisted Language Learning*, 35(7), 1668-1706.
- Fazlali, B., & Shahini, A. (2019). The Effect of Input Enhancement and Consciousness-Raising Techniques on the Acquisition of Lexical and Grammatical Collocation of Iranian EFL Learners. *TESL-EJ*, 24(2), n2.
- Hsu, J. Y., & Chiu, C. Y. (2008). Lexical collocations and their relation to speaking proficiency of college EFL learners in Taiwan. *Asian EFL Journal*, 10(1), 181-204.
- Jiang, J. (2022). Chinese University Students' Metacognitive Strategy Use in Language Acquisition: A Flipped Learning Perspective. *International Journal of Mobile and Blended Learning (IJMBL)*, 14(1), 1-16.
- Judy Shih, H. C., & Huang, S. H. C. (2022). EFL learners' metacognitive development in flipped learning: A comparative study. *Interactive Learning Environments*, 30(8), 1448-1460.
- Karimi, M., & Hamzavi, R. (2017). The effect of flipped model of instruction on EFL learners' reading comprehension: Learners' attitudes in focus. *Advances in Language and Literary Studies*, 8(1), 95-103.
- Kiaee, S. S. S., Moghaddam, N., & Hosseini, E. (2013). The effect of teaching collocations on enhancing Iranian EFL learners' reading comprehension. *Journal of advances in English language teaching*, 1(1), 1-11.

- Khodabandeh, F. (2024). Examining the influence of flipped, face to face and blended instruction on intermediate EFL introverted and extroverted learners' pronunciation ability. *Journal of Foreign Language Research*, 14(1), 89-114. doi: 10.22059/jflr.2024.372872.1103
- Khonamri, F., Ahmadi, F., Pavlikova, M., & Petrikovicova, L. (2020). The Effect of Awareness Raising and Explicit Collocation Instruction on Writing Fluency of EFL Learners. *European Journal of Contemporary Education*, 9(4), 786-806.
- Kopotev, M., Kisselev, O., & Polinsky, M. (2020). Collocations and near-native competence: Lexical strategies of heritage speakers of Russian. *International Journal of Bilingualism*, 1367006920921594.
- Leis, A., Cooke, S., & Tohei, A. (2015). The effects of flipped classrooms on English composition writing in an EFL environment. *International Journal of Computer-Assisted Language Learning and Teaching*, 5(4), 37-51. <https://doi.org/10.4018/IJCALLT.2015100103>
- Li, R., Lund, A., & Nordsteien, A. (2021). The link between flipped and active learning: A scoping review. *Teaching in Higher Education*, 1-35.
- Li, S., He, J., Tao, Y., & Liu, X. (2022). The effects of flipped classroom approach in EFL teaching: Can we strategically use the flipped method to acquire communicative competence?. *Language Teaching Research*, 13621688221081575.
- Linling, Z., & Abdullah, R. (2023). The Impact of COVID-19 Pandemic on Flipped Classroom for EFL Courses: A Systematic Literature Review. *SAGE open*, 13(1), 21582440221148149.
- Liu, C., Sands-Meyer, S., & Audran, J. (2019). The effectiveness of the student response system (SRS) in English grammar learning in a flipped English as a foreign language (EFL) class. *Interactive Learning Environments*, 27(8), 1178-1191.
- Liu, F., Wang, X., & Izadpanah, S. (2023). The Comparison of the Efficiency of the Lecture Method and Flipped Classroom Instruction Method on EFL Students' Academic Passion and Responsibility. *SAGE Open*, 13(2), 21582440231174355.
- Mahdavi-Zafarghandi, A., & Emamzadeh, S. (2016). The effect of teaching lexical collocations on Iranian EFL learners' writing ability: focusing on the appropriate use of collocations. *Journal of Applied Linguistics and Language Research*, 3(5), 107-117.
- Mandasari, B., & Wahyudin, A. Y. (2021). Flipped classroom learning model: implementation and its impact on EFL learners' satisfaction on grammar class. *Ethical Lingua: Journal of Language Teaching and Literature*, 8(1), 150-158.
- Matsuno, K. (2017). Processing collocations: Do native speakers and second language learners simultaneously access prefabricated patterns and each single word?. *Journal of the European Second Language Association*, 1(1).
- Mayer, R. E. (2005). Cognitive theory of multimedia learning. *The Cambridge handbook of multimedia learning*, 41(1), 31-48.
- Mirzaei, A., Shafiee Rad, H., & Rahimi, E. (2022). Integrating ARCS motivational model and flipped teaching in L2 classrooms: A case of EFL expository writing. *Computer Assisted Language Learning*, 1-30.
- Namazandost, E., & Çakmak, F. (2020). An account of EFL learners' self-efficacy and gender in the Flipped Classroom Model. *Education and Information Technologies*, 25(5), 4041-4055.
- Nourinezhad, S., Hadipourfard, E., & Bavali, M. (2022). The Effect of Flipped Learning on English Writing Performance and Self-Efficacy of Iranian Medical Students. *Journal of Language Horizons*, 6(1), 161-182. doi: 10.22051/ghor.2021.34132.1409
- Piaget, J. (1977). *The development of thought: Equilibration of cognitive structures.* (Trans A. Rosin). Viking.

- Rasheed, R. A., Kamsin, A., Abdullah, N. A., Kakudi, H. A., Ali, A. S., Musa, A., & Yahaya, A. S. (2020). Self regulated learning in flipped classrooms: A systematic literature review. *International Journal of Information and Education Technology*, 10(11), 848-853.
- Retnaningsih, W., Nugroho, A., Van, D. T. H., & Al Amin, N. H. (2022). Booming the Vocabulary Acquisition by Using Flipped Classroom on EFL Learners' PPA (Performance, Perception and Acceptance). *VELES (Voices of English Language Education Society)*, 6(2), 325-339.
- Sadeghi, K., & Panahifar, F. (2013). The relationship between collocational knowledge, speaking proficiency, and the use of collocation in Iranian EFL learners' oral performance. *Teaching English Language*, 7(1), 1-31.
- Samiei, F., & Ebadi, S. (2021). Exploring EFL learners' inferential reading comprehension skills through a flipped classroom. *Research and Practice in Technology Enhanced Learning*, 16(1), 12.
- Shabani, K., & Jabbari, A. (2023). Differential effects of interaction-embedded vs interaction-reduced modes of fully online flipped instruction on EFL learners' speaking. *Computer Assisted Language Learning*, 1-27.
- Shih, H. C. J., & Huang, S. H. C. (2020). College students' metacognitive strategy use in an EFL flipped classroom. *Computer Assisted Language Learning*, 33(7), 755-784.
- Shooshtari, Z. G., & Karami, N. (2013). Lexical collocation instruction and its impact on Iranian non-academic EFL learners' speaking ability. *Journal of Language Teaching and Research*, 4(4), 767.
- Soltanabadi, M. I., Izadpanah, S., & Namaziandost, E. (2021). The effect of flipped classroom on Iranian adolescents: Elementary EFL learners' vocabulary recall and retention. *Education Research International*, 2021, 1-9.
- Su Ping, R. L., Verezub, E., Adi Badiozaman, I. F. B., & Chen, W. S. (2020). Tracing EFL students' flipped classroom journey in a writing class: Lessons from Malaysia. *Innovations in Education and Teaching International*, 57(3), 305-316.
- Teng, M. F., Qin, C., & Wang, C. (2022). Validation of metacognitive academic writing strategies and the predictive effects on academic writing performance in a foreign language context. *Metacognition and Learning*, 17(1), 167-190.
- Van Vliet, E. A., Winnips, J. C., & Brouwer, N. (2015). Flipped-class pedagogy enhances student metacognition and collaborative-learning strategies in higher education but effect does not persist. *CBE—Life Sciences Education*, 14(3), ar26.
- Wu, W. C. V., Hsieh, J. S. C., & Yang, J. C. (2017). Creating an online learning community in a flipped classroom to enhance EFL learners' oral proficiency. *Journal of Educational Technology & Society*, 20(2), 142-157.
- Wu, W. C. V., Hsieh, J. C., & Yang, J. C. (2021). Effects of flipped reading-writing constructivist instruction on EFL learners' writing performance and intercultural sensitivity. *The Asia-Pacific Education Researcher*, 1-17.
- Wu, W. C. V., Yang, J. C., Hsieh, J. S. C., & Yamamoto, T. (2020). Free from demotivation in EFL writing: The use of online flipped writing instruction. *Computer Assisted Language Learning*, 33(4), 353-387. <https://doi.org/10.1080/09588221.2019.1577899>
- Yazdandoost, Z., AmalSaleh, E., & Kafipour, R. (2014). The relationship among collocation knowledge and listening, speaking, reading and writing proficiency of Iranian EFL learners. *Language, Individual & Society*, 8, 408-419.

Yilmaz, R. M., & Baydas, O. (2017). An examination of undergraduates' metacognitive strategies in pre-class asynchronous activity in a flipped classroom. *Educational Technology Research and Development*, 65, 1547-1567.

Zou, D. (2020). Gamified flipped EFL classroom for primary education: Student and teacher perceptions. *Journal of Computers in Education*, 7(2), 213-228.

Appendix

Appendix A: Oxford Placement Test

Oxford University Press and University of Cambridge Local Examinations Syndicate

Name: Date: Gender: Educational Level

Version 1

This test is divided into two parts

Part One (Question 1-40) - All students

Part Two (Question 41-60) - Do not start this part unless told to do so by your test supervisor

Time: 30 minutes

Part 1

Questions 1 – 5

Where can you see these notices? For questions 1 to 5, mark one letter A, B or C on your Answer Sheet

:1

**Please leave your room
key at Reception**

A: in a shop B in a hotel C in a taxi

:2

**Foreign money
changed here**

A: in a library B in a bank C in a police station

:3

**Afternoon show begins at
2 PM**

A: outside a theatre B outside a supermarket C outside a restaurant

:4

**CLOSED FOR
HOLIDAYS**
Lessons start again on the 8
the January

A at a travel agent's B at a music school C at a restaurant

:5

:Price per night
a tent £10
a person £5

A at a cinema B in a hotel C on a camp-site

Questions 6 – 10

In this section you must choose the word which best fits each space in the text below. • For questions 6 to 10, mark **one** letter **A, B** or **C** on your Answer Sheet

Scotland

Scotland is the north part of the island of Great Britain. The Atlantic Ocean is on the west and the North Sea on the east. Some people (6) Scotland speak a different language called Gaelic. There are (7) five million people in Scotland, and Edinburgh is (8) most famous city. Scotland has many mountains; the highest one is called 'Ben Nevis'. In the south of Scotland, there are a lot of sheep. A long time ago, there (9) many forests, but now there are only a (10) Scotland is only a small country, but it is quite beautiful

- | | | |
|---------|-----------|-----------|
| A on | B in | C at 6 |
| A about | B between | C among 7 |
| A his | B your | C its 8 |
| A is | B were | C was 9 |
| A few | B little | C lot 10 |

Questions 11 – 20

In this section you must choose the word which best fits each space in the texts. • For questions 11 to 20, mark **one** letter **A, B, C** or **D** on your Answer Sheet

Alice Guy Blaché

Alice Guy Blaché was the first female film director. She first became involved in cinema whilst working for the Gaumont Film Company in the late 1890s. This was a period of great change in the cinema and Alice was the first to use many new inventions, (11) sound and colour. In 1907 Alice (12) to New York where she started her own film company. She was (13) successful, but, when Hollywood became the centre of the film world, the best days of the independent New York film companies were (14) When Alice died in 1968, hardly

anybody (15) her name

- | | | | |
|--------------|-------------|---------------|------------------|
| A bringing | B including | C containing | D supporting 11 |
| A moved | B ran | C entered | D transported 12 |
| A next | B once | C immediately | D recently 13 |
| A after | B down | C behind | D over 14 |
| A remembered | B realised | C reminded | D repeated 15 |

?UFOs – do they exist

UFO is short for 'unidentified flying object'. UFOs are popularly known as flying saucers that is often the (17) they are reported to be. The (18) (16) "flying saucers" were seen in 1947 by an American pilot, but experts who studied his claim decided it had been a trick of the light. Even people experienced at watching the sky, (19) as pilots, report seeing UFOs. In 1978 a pilot reported a collection of UFOs off the coast of New Zealand. A television (20) went up with the pilot and filmed the UFOs. Scientists studying this phenomenon later discovered that in this case they were simply lights on boats out fishing

- | | | | |
|-------------|-------------|------------|----------------|
| A because | B therefore | C although | D so 16 |
| A look | B shape | C size | D type 17 |
| A last | B next | C first | D oldest 18 |
| A like | B that | C so | D such 19 |
| A cameraman | B director | C actor | D announcer 20 |

Questions 21 – 40

In this section you must choose the word or phrase which best completes each sentence. • For questions 21 to 40, mark **one** letter **A, B, C** or **D** on your Answer Sheet

- .The teacher encouraged her students to an English pen-friend **21**
 A should write B write C wrote D to write
- .They spent a lot of time at the pictures in the museum **22**
 A looking B for looking C to look D to looking
- .Shirley enjoys science lessons, but all her experiments seem to wrong **23**
 A turn B come C end D go
- .from Michael, all the group arrived on time **24**
- A Except B Other C Besides D Apart
 .She her neighbour's children for the broken window **25**
 A accused B complained C blamed D denied
- .As I had missed the history lesson, my friend went the homework with me **26**
 A by B after C over D on
- .Whether she's a good actress or not is a of opinion **27**
 A matter B subject C point D case
- .The decorated roof of the ancient palace was up by four thin columns **28**
 A built B carried C held D supported
- ?Would it you if we came on Thursday **29**
- A agree B suit C like D fit
 .This form be handed in until the end of the week **30**
 A doesn't need B doesn't have C needn't D hasn't got
- .If you make a mistake when you are writing, just it out with your pen **31**
 A cross B clear C do D wipe
- .Although our opinions on many things, we're good friends **32**
 A differ B oppose C disagree D divide
- .This product must be eaten two days of purchase **33**
 A by B before C within D under
- .The newspaper report contained important information **34**
 A many B another C an D a lot of
- ?Have you considered to London **35**
 A move B to move C to be moving D moving
- It can be a good idea for people who lead an active life to increase their of vitamins **36**
 A upturn B input C upkeep D intake
- .I thought there was a of jealousy in his reaction to my good fortune **37**
 A piece B part C shadow D touch
- ?Why didn't you that you were feeling ill **38**
 A advise B mention C remark D tell

..... James was not sure exactly where his best interests **39**

A stood **B** rested **C** lay **D** centred

.He's still getting the shock of losing his job **40**

A across **B** by **C** over **D** through

Part 2

Questions 41 – 50

In this section you must choose the word or phrase which best fits each space in the texts. For questions 41 to 50, mark one letter A, B, C or D on your Answer Sheet

The tallest buildings - SKYSCRAPERS

Nowadays, skyscrapers can be found in most major cities of the world. A building which was many **(41)** high was first called a skyscraper in the United States at the end of the 19th century, and New York has perhaps the **(42)** skyscraper of them all, the Empire State Building. The **(43)** beneath the streets of New York is rock enough to take the heaviest load without sinking, and is therefore well- **(44)** suited to bearing the **(45)** of tall buildings

A stages **B** steps **C** storeys **D** levels **41**
A first-rate **B** top-class **C** well-built **D** best-known **42**
A dirt **B** field **C** ground **D** soil **43**
A hard **B** stiff **C** forceful **D** powerful **44**
A weight **B** height **C** size **D** scale **45**

SCRABBLE

Scrabble is the world's most popular word game. For its origins, we have to go back to the 1930s in the USA, when Alfred Butts, an architect, found himself out of **(46)** He decided that there was a **(47)** for a board game based on words and **(48)** to design one. Eventually he made a **(49)** from it, in spite of the fact that his original **(50)** was only three cents a game

A earning **B** work **C** income **D** job **46**
A market **B** purchase **C** commerce **D** sale **47**
A took up **B** set out **C** made for **D** got round **48**
A wealth **B** fund **C** cash **D** fortune **49**
A receipt **B** benefit **C** profit **D** allowance **50**

Questions 51 – 60

In this section you must choose the word or phrase which best completes each sentence. For questions 51 to 60, mark **one** letter **A**, **B**, **C** or **D** on your Answer Sheet

.Roger's manager to make him stay late if he hadn't finished the work **51**

A insisted **B** warned **C** threatened **D** announced

By the time he has finished his week's work, John has hardly energy left for the **52** weekend

A any **B** much **C** no **D** same
.As the game to a close, disappointed spectators started to leave **53**
A led **B** neared **C** approached **D** drew

- .I don't remember the front door when I left home this morning **54**
- A** to lock **B** locking **C** locked **D** to have locked
- I to other people borrowing my books: they always forget to return **55**
.them
- A** disagree **B** avoid **C** dislike **D** object
- Andrew's attempts to get into the swimming team have not with much **56**
.success
- A** associated **B** concluded **C** joined **D** met
- Although Harry had obviously read the newspaper article carefully, he didn't seem to **57**
.have the main point
- A** grasped **B** clutched **C** clasped **D** gripped
- A lot of the views put forward in the documentary were open to **58**
- A** enquiry **B** query **C** question **D** wonder
- The new college for the needs of students with a variety of learning **59**
.backgrounds
- A** deals **B** supplies **C** furnishes **D** caters
- I find the times of English meals very strange – I'm not used dinner at **60**
.6pm
- A** to have **B** to having **C** having **D** have

Appendix B

The Academic Writing Strategy Questionnaire

- a) Please tick the appropriate information in items 1 to 5
- b) And provide the information requested in items 6 to 12
- c) The information you provide will not be passed on to anyone else.

1. Gender: Female Male

2. Age: 18-25 26-30 31-35 36-40 41-50 51 and above

3. Nationality:
4. Native language:
5. Qualification for which you are studying:
BA BSc MA MSc MED MPhil PhD Other

6. Subject area: _____
7. The year of study that you have just finished: _____
8. Is English your 1st, 2nd, 3rd or additional language? _____

(If English is your first language please go straight to the questions on the next page).

9. How long have you been studying English as a second/foreign language in a formal setting (school and university)? _____

A. PLANNING AND PREPARATION

Please tick the appropriate response [from 1 to 5].

	Before start writing in English, ...	never true 1	rarely true 2	sometimes true 3	usually true 4	always true 5
1	I make a timetable for the writing process.					
2	I read the requirements of the writing activity.					
3	I look at a model written by a proficient writer.					
4	I analyse the topic of the writing activity.					
5	I consider the purpose of the topic.					
6	I brainstorm to generate ideas.					
7	I write without a written plan.					
8	I plan out the organisation in advance.					
9	I plan out the organisation as I go.					
10	I make an outline in my native language. (if you are a non-native speaker of English)					
11	I make an outline in English.					
12	I depend on what I already know to find things to write.					
13	I think of the suitability of expressions I know.					
14	I consult references for more information about my topic.					
15	I think of the relevance of the ideas.					
16	I think of the ideas in my native language. (if you are a non-native speaker of English)					
17	I read my tutors' feedback on my previous writing and try to learn from my mistakes.					
18	I discuss my topic with my friends.					
19	I discuss my topic with my tutors.					
20	I ask my classmates about the strategies they use in their writing activity that may help me.					
21	I choose a relaxing environment when writing.					

a) Please note below any other strategies you use, before you start writing or to prepare yourself for writing, that are not covered here.

B. THE WRITING PROCESS

Please tick the appropriate response [from 1 to 5].

	When writing in English, ...	never true 1	rarely true 2	sometimes true 3	often true 4	always true 5
22	I write the introduction first.					
23	I leave the introduction to the end.					
24	I think only in English. (if you are a non-native speaker of English)					
25	I think of a sentence in my native language first and then translate it into English. (if you are a non-native speaker of English)					
26	I use some familiar expressions in order not to make mistakes.					
27	I use some examples to explain the meaning when I cannot find the exact expressions.					
28	I highlight sentences that I want to check later.					
29	I discuss various points of view in my writing.					
30	I stop writing when I do not know what to write.					
31	I periodically check whether I am keeping to my topic.					
32	I periodically check whether my writing is making sense to me.					
33	I stick to the organisation I chose initially.					
34	I change the organisation I chose initially.					
35	I confer with my tutors when I have writing problems.					
36	I confer with my classmates.					
37	I handwrite a draft copy first.					
38	I produce a first, rough draft by computer.					
39	I produce subsequent drafts.					
40	I use a dictionary to make sure of my wording and usage.					
41	I use a bilingual dictionary. (if you are a non-native speaker of English)					
42	I use a monolingual dictionary.					
43	I use electronic/online dictionaries.					
44	I consult a thesaurus to assist me with vocabulary.					
45	I use spell-checkers.					
46	I use grammar checkers.					

b) Please note below any other strategies you use, when you are writing, that are not covered here.

C. REVISION

Please tick the appropriate response [from 1 to 5].

	When editing, proof-reading and revising,..	never true 1	rarely true 2	sometimes true 3	often true 4	always true 5
47	I check whether I have written everything I wanted to say.					
48	I check whether the content is logical.					
49	I make changes in the content.					
50	I revise the draft to clarify the meaning.					
51	I check whether more examples are needed.					
52	I check whether more explanation is needed.					
53	I check whether the organisation of my writing is clear.					
54	I check whether there is any deviation from the main idea.					
55	I check my sentence structure.					
56	I check whether the sentences in the paragraph are connected.					
57	I connect shorter sentences into longer, complex sentences.					
58	I break down sentences that are too long into shorter, simpler ones.					
59	I check whether the main ideas are referred to in the conclusion.					
60	I check whether the citations used are appropriate to my argument.					
61	I check my punctuation.					
62	I check my spelling.					
63	I check whether I have used academic English conventions, e.g., formality and referencing.					
64	I read the text aloud to see if it sounds right.					
65	I edit the draft myself.					
66	I edit the draft collaboratively.					
67	I give the draft to a classmate for proofreading.					
68	I give my draft to a native speaker to check. (if you are a non-native speaker of English)					
69	I check whether it is easy for the reader to understand.					
70	I leave the text for a while and then read it again later.					
71	I prepare a final, polished draft.					
72	I check to make sure that I have met the requirements of the writing activity.					

c) Please note below any other strategies you use, when revising or editing, that are not covered here.

d) Please add below any other comments you may have:

If you would be prepared to be interviewed, please add your name and contact telephone number or email address:

Name:

Phone:

Email:

Thank you for your valuable help.