

Online-Based L2 Writing Courses and Practicing Metacognitive Strategies: Teacher-Regulated or Individualized?

Maryam Shirvani

Faculty of Arts and Architecture, Central Tehran Branch, Islamic Azad University, Tehran, Iran

Reza Porkar

TEFL Department, North Tehran Branch, Islamic Azad University, Tehran, Iran

Abstract—Research findings show the usefulness of employing metacognitive strategies in writing classes. However, the approach toward teaching the strategies is not mainly addressed. The present study investigated the impact of two methods on metacognitive strategies in an online writing course. In doing so, 20 intermediate EFL learners ($n_1=n_2=10$) in two classes were randomly assigned to two treatment conditions. A sample of the IELTS test administered at the onset of the study verified the participants' homogeneity regarding English proficiency. In one group, Teacher-regulated Metacognitive Instruction (TRMI), the teacher taught metacognitive strategies during the different stages of writing tasks. In the second group, Individualized Metacognitive Practices (IMP), the teacher did not teach the metacognitive strategies and only had a facilitating role. The learners used a questionnaire (Zhang & Qin, 2018) to practice the strategies. After the treatment, the groups sat for a writing posttest and answered a metacognitive strategies questionnaire. The independent samples t-test revealed that the IMP outperformed the TRMI in argumentative essay writing. The frequency count obtained from the respondents' answers to the questionnaire showed that IMP used more strategies in the three levels of planning, monitoring, and evaluating. The study has implications for EFL/ESL teachers and scholars interested in reflective practices.

Index Terms—essay writing, explicit teaching, individualized practices, metacognitive strategies, online writing

I. INTRODUCTION

Metacognitive strategies, also called self-directed learning skills or regulatory skills, refer to executive processes that govern and direct thought processes during planning, monitoring, and evaluation (Briggs et al., 2012). Oxford (2016) defines metacognitive strategies as the tactics which lead learners to self-directed and responsible learning. Several studies have emphasized the use of metacognitive strategies in second/foreign language learning. Such studies indicate that employing the strategies leads to self-regulation, empowers individuals to plan, sequence, and monitor their learning and perform more successfully in language tasks (Al-jarrah et al., 2018; Cer, 2019; Fiani, 2020; Flavell, 2016; Polio, 2017; Yulianti, 2018).

Language learners have always found L2 writing demanding (Cer, 2019; Oxford, 2016). Metacognitive strategies play a vital role in writing since the skill requires learners to consciously employ various strategies (Rashtchi et al., 2019) and in different stages. Using strategies in the pre-writing phase would enable learners to think and find genuine ideas (Rashtchi & Beiki, 2015; Rashtchi & Porkar, 2020). In the while writing stage, learners need to use cognitive and metacognitive strategies to accomplish the task (Rashtchi, 2019; Rashtchi & Mohammadi, 2017). After writing task completion, learners need to evaluate and revise their work (Rashtchi & Ghandi, 2011). Thus, teaching metacognitive strategies can enable learners to overcome their challenges while writing a composition. As Schraw (1998) argues, metacognition is necessary for successful learning because it allows students to focus on their cognitive skills and helps teachers understand the obstacles learners encounter during the learning process. Metacognitive strategies help learners become aware of the processes they should follow for productive writing (Xiao, 2007). As Flavell (1979) argues, metacognition is the act of relying on thinking and monitoring while doing a task. Studying metacognitive strategies contributes to understanding how individuals think, pay attention, solve a problem, and communicate, facilitating self-instruction and self-regulation. Metacognition is learning to learn and refers to discovering how applying beneficial strategies will result in learning (Schraw et al., 2006). In line with Xiao (2007), the present study's authors assume that employing metacognitive strategies in writing classes can contribute to improving EFL learners' argumentative essay writing. Therefore, integrating metacognitive activities with writing can help EFL learners overcome the challenges of L2 writing.

II. LITERATURE REVIEW

Although metacognitive strategies are likely to be an indicator of success in different language skills (Aryanjam et al., 2020; Rashtchi & Khani, 2010), the literature has documented mixed success in learners' desire to monitor their studies (Entwistle & McCune, 2013), which could be due to different factors, such as finding strategies that help learners with diverse backgrounds. Another impediment might be the instructors' lack of knowledge of their learners' previous training and existing strategies (Teng, 2020), hindering fruitful learning. While teaching metacognitive strategies, learners' background knowledge needs to be prioritized and used for better results (Young & Fry, 2008).

The literature on applying metacognitive strategies in writing shows that the issue has been explored from different aspects. For example, Wang and Han (2017) found that the participants were labeled excellent or poor due to the types of metacognitive strategies they used in writing tasks. The study suggested that teaching metacognitive strategies would improve the writing skills of poor learners. Fiani (2020) and Qin and Zhang (2018), in their studies, concluded that proficient learners made use of metacognitive strategies more often compared to those who lacked sufficient proficiency.

Regarding online courses, the implementation of metacognitive strategies has been growing in significance since more online-based classes are held worldwide due to the COVID-19 pandemic. As a result, the importance of equipping learners with metacognitive strategies has risen rapidly. The strategies can help learners control their learning. Moreover, most studies have investigated metacognitive strategies in traditional learning contexts, and there are insufficient investigations regarding the use of such strategies in online-based writing courses.

Although teaching metacognitive strategies, including planning, monitoring, and evaluating, has been emphasized by different scholars (e.g., Alamri, 2019; Al-jarrah et al., 2018; Al Moqbali et al., 2020; Cer, 2019; Paris & Winograd, 1990), it is not clear whether teachers' assistance in drawing learners' attention to metacognitive strategies is necessary for improving learners' writing ability. Thus, the researchers intended to examine whether teachers' explicit instruction of metacognitive strategies or learners' individualized focus on such strategies could result in more significant results in writing argumentative essays. Consequently, the present quasi-experimental study with a non-equivalent control group pretest-posttest design (Rashtchi & Birjandi, 2018) addressed the following research questions:

RQ1: Do teacher-regulated metacognitive strategy use and individualized metacognitive strategy use have different impacts on EFL learners' argumentative essay writing?

RQ2: What is the frequency of metacognitive strategies used in the Teacher-regulated Metacognitive Instruction and the Individualized Metacognitive Practices groups?

III. METHODOLOGY

A. Participants

Twenty EFL learners (8 males and 12 females) with the age range of 19 to 22 participated in the study. They were university students in TEFL or Translation Studies who had taken a private writing course and had formed two online classes (each class with ten learners). The researchers randomly assigned the groups to two treatment conditions: the Teacher-regulated Metacognitive Instruction group (TRMI) practiced metacognitive strategies under the teacher's instruction and supervision. The Individualized Metacognitive Practices group (IMP) employed strategies based on self-reflection without the teacher's explicit instruction. At the onset of the study, the participants took a free online IELTS practice test (available at <https://takeielts.britishcouncil.org/take-ielts/prepare/free-ielts-practice-tests>). The results indicated that they were at B2 (5-5.5) English language proficiency level.

B. Instruments

The first instrument used for data collection was a writing pretest on a topic selected from the IELTS test task two: *"Some people say that individuals should change jobs during their working life often while others believe that doing the same job has advantages to individuals, companies, and society. Discuss both views and give your opinion."* The same topic was employed in the posttest. Besides, a writing rubric (Appendix) was used to score the participants' writings before and after the treatment. The rubric was based on the IELTS writing band descriptors (public version) and tapped task achievement, grammatical range and accuracy, lexical resources, and cohesion and coherence.

Two raters scored the participants' papers before and after the treatment. The inter-rater reliability using Pearson product-moment correlation coefficient showed that the two raters were consistent in their scorings. The inter-rater reliability indices for the writing pretest and posttest were .85 and .89, respectively.

Another instrument was the Questionnaire on Language Learners' Metacognitive Writing Strategies in Multimedia Environments (Zhang & Qin, 2018). The questionnaire has two sections. The first section addresses the respondents' demographic information, which the researchers modified to fit the respondents' nationality (Iranian). The second section comprises 23 items on a six-point Likert scale from "Strongly Disagree=1" to "Strongly Agree=6" and focuses on a "three-factor metacognitive structure," including advanced planning before writing, elaborate monitoring during writing, and prompt evaluating after writing" (Zhang & Qin, 2018, p. 169). The questionnaire, designed for EFL learners, is a valid and reliable instrument (available online, see References for the URL). However, the questionnaire was piloted for reliability through administration to 30 learners with similar characteristics to the participants. Cronbach's alpha confirmed that it was reliable regarding its components: planning (.79), monitoring (.80), and evaluating (.85).

C. Materials

The coursebook was *Practical writer with readings* (Bailey & Powell, 2008). The book helped the teacher instruct learners on writing different types of essays, mechanics of writing, and grammar.

D. Procedure

The study took 12 sessions, each session 90 minutes, in six weeks. Each week, one session was allocated to students' argumentative writing and metacognitive practices (Sundays) and one session to teach grammar, mechanics, and coherence in writing (Tuesdays). The first and last sessions were devoted to writing pretest and posttest to enable the researchers to ensure that the learners were homogenous regarding their writing skills.

The study platform was Adobe Connect because of its freedom to share videos, group learners, and use the board. However, WhatsApp was also used to communicate before and after class. The participants used e-mails to send their assignments.

During the treatment, the participants wrote five argumentative essays. The essays were corrected and returned to the participants in the successive session. Table 1 shows the topics:

TABLE 1
THE TOPICS WRITTEN BY THE PARTICIPANTS DURING THE TREATMENT

Sessions	Activities	
1	Pretest	Some people say that individuals should change jobs during their working life often, while others believe that doing the same job has advantages for individuals, companies, and society. Discuss both views and give your opinion.
3	Classroom writing	In the future, more people will choose to go on holiday in their own country and not travel abroad. Do you agree or disagree?
5	Classroom writing	In many countries, paying for things using mobile phone apps is becoming common. Does this development have more advantages or more disadvantages?
7	Classroom writing	Many manufactured foods and drink products contain high levels of sugar, which causes many health problems. Sugary products should be made more expensive to encourage people to consume less sugar. Do you agree or disagree?
9	Classroom writing	Nowadays, many people complain that they have difficulties getting enough sleep. What problems can lack of sleep cause? What can be done about lack of sleep?
11	Classroom writing	Nowadays, more and more younger people need to compete with older people for the same jobs. What problems does this cause? What would you suggest as a solution?
12	Posttest	Some people say that individuals should change jobs during their working life often, while others believe that doing the same job has advantages for individuals, companies, and society. Discuss both views and give your opinion.

E. Teacher-regulated Metacognitive Instruction (TRMI) Group

The participants in the TRMI group wrote under the teacher's supervision and instruction. As the first step in the online writing session, the teacher helped the learners plan before writing by encouraging them to think about the topic and write down their ideas. She asked the participants to arrange their ideas in the order they wanted them to appear in their compositions. During writing, the teacher asked the learners first to jot ideas down without trying to write correctly regarding grammar and mechanics. It was important to put ideas together coherently and develop an argumentative essay. The teacher explained the benefits of outlining and asked them to prepare outlines before writing their essays. After the first draft, they were suggested to correct their papers grammatically, change the choice of words, revise, and edit. The participants were free to use online or other sources while writing. After the while writing stage, they were expected to read their essays and evaluate their writings based on the rubric (Appendix).

F. Individualized Metacognitive Instruction (IMP) Group

First, the participants received the Questionnaire on Language Learners' Metacognitive Writing Strategies in Multimedia Environments (Zhang & Qin, 2018) before writing. The teacher asked them to go through the questionnaire's items. The first session of writing session was confusing. However, the teacher invited the learners to reflect on the questionnaire items, think about them, and write based on what they perceived from the items. The teacher answered their questions and was ready to help, but she did not give instructions on planning, monitoring, and evaluating stages, as she did in the TRMI group. The emphasis in this class was on individualized thinking and writing with the help of the questionnaire. They were free to use online sources and could interact with their classmates.

G. Posttest

The participants wrote on the same topic of the pretest, as shown in Table 1. Both groups answered the Questionnaire on Language Learners' Metacognitive Writing Strategies in Multimedia Environments. The questionnaire was administered online through google to give the opportunity to the TRMI to have enough time to think about the items and take their time while answering. The participants had two days to answer the questionnaire and send it to the teacher. This decision could help the researchers control the effect of constant exposure of the IMP group to the tool.

The essays were scored based on the rubric. Two raters scored the papers, and after computing the inter-rater reliability ($r=.89$), the mean of the two scorings was considered the final score of each learner.

IV. RESULTS

Independent samples t-test was used to compare the participants' essays before and after the treatment. Table 2 shows the descriptive statistics of the writing pretest. The skewness ratios for TRMI ($M=12.2$, $SD=.63$) and IMP ($M=11.7$, $SD=.67$) were .19 and .63, respectively (obtained from dividing the statistic by standard error). The ratios fell within the range of ± 1.96 , indicating the normality of the distribution of the scores in the groups. Thus, the researchers could run parametric tests.

TABLE 2
DESCRIPTIVE STATISTICS, WRITING PRETEST

	N	Min.	Max.	Mean	SD	Statistic	Skewness Std. Error
TRMI	10	11.00	13.00	12.2000	.63246	-.132	.687
IMP	10	11.00	13.00	11.7000	.67495	.434	.687

An independent samples t-test was run to compare the means of the groups. As shown in Table 3, the results of Levene's test ($F=.255$, $p>.05$) indicate that the homogeneity of the variances is assumed. The results of the t-test for comparing means: $t(18)=1.7$, $p>.05$ (two-tailed) show no statistically significant difference between the groups before the treatment.

TABLE 3
INDEPENDENT SAMPLES T-TEST, WRITING PRETEST

	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference Lower Upper	
Equal variances assumed	.255	.620	1.709	18	.105	.5000	.29250	-1.1452	1.1452

Table 4 shows the descriptive statistics of the groups after the treatment. The skewness ratios for TRMI ($M=15.4$, $SD=.7$) and IMP ($M=17.7$, $SD=.67$) fall within ± 1.96 (1.13 and .63, respectively). Therefore, the distribution of the scores is normal, and it is legitimate to run parametric tests.

TABLE 4
DESCRIPTIVE STATISTICS, WRITING POSTTEST

	N	Min.	Max.	Mean	SD	Statistic	Skewness Std. Error
TRMI	10	14.00	16.00	15.4000	.69921	-.780	.687
IMP	10	17.00	19.00	17.7000	.67495	.434	.687

Table 5 shows the results of the independent samples t-test after the treatment. Levene's test ($F=.955$, $p>.05$) indicates that the homogeneity of the variances is assumed. The results of the t-test for comparing means: $t(18)=7.48$, $p<.001$ (two-tailed) show a statistically significant difference between the groups after the treatment. The magnitude of the differences in the means (mean difference 2.30, 95% CI: -2.9 to -1.6) was large. Therefore, a statistically significant difference between the groups was confirmed.

TABLE 5
INDEPENDENT SAMPLES T-TEST, WRITING POSTTEST

	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference Lower Upper	
Equal variances assumed	.082	.778	-7.484	18	.000	-2.30000	.30732	-2.94565	1.65435

The effect size (η^2) equals 0.29, which indicates a large effect size (Cohen, 1988, pp. 284-187, 0.01=small effect, 0.06= moderate effect, 0.14= large effect.). In other words, 29% of the variance in vocabulary knowledge (dependent variable) is explained by the independent variable (metacognitive strategies).

Frequency of Metacognitive Strategies in Online Writing Course

Table 6 indicates the frequency of planning strategies in TRMI and IMP groups. The first item is the most agreed item between the two groups. However, item 4, another most agreed-upon item by IMP, shows that this group was more concerned about grammatical correctness than the TRMI. Item 3 was the least agreed-upon item for TRMI, probably because of the teacher's control of the classroom procedures. The participants' answers to item 7 show that both groups used online materials and were aware of the value of brainstorming for generating ideas.

TABLE 6
THE FREQUENCY OF USE FOR PLANNING STRATEGIES

Strategies: Advanced planning before writing	Strongly Agree to Slightly Agree	Strongly Agree to Slightly Agree	Strongly Disagree to Slightly Disagree	Strongly Disagree to Slightly Disagree
Before I started writing in the multimedia environment,	TRMI frequency	IMP frequency	TRMI frequency	IMP frequency
1. I had a plan in my mind for how I was going to structure each paragraph in my essay.	7	10	3	-
2. I made an outline, including a list of the key points of view that I want to include in my essay.	8	9	2	1
3. I planned what language features I was going to use in my essay with reference to the writing topic.	7	9	3	1
4. I thought about the goal I wanted to achieve in my writing (e.g., using a new word or a new sentence structure I have learned, avoiding a mistake I had made before, getting a high score, etc.).	6	10	4	-
5. I thought about how much time I should spend on each part of the essay.	3	5	7	5
6. I collected relevant materials based on the writing topic, doing some reading preparation.	5	7	5	3
7. I planned the use of online materials, aiming at the efficient use of network resources.	9	10	1	0

Table 7 indicates the frequency of monitoring strategies in TRMI and IMP groups. The IMP group was more involved in reflection than TRMI, as shown in the frequency of the items that required thinking (items 11, 14, 18, 19). It can be assumed that reflection can be cultivated among learners and can lead to using metacognitive strategies associated with the monitoring dimension in online writing classes.

TABLE 7
THE FREQUENCY OF USE FOR MONITORING STRATEGIES

Strategies: Elaborate monitoring during writing,	Strongly Agree to Slightly Agree	Strongly Agree to Slightly Agree	Strongly Disagree to Slightly Disagree	Strongly Disagree to Slightly Disagree
When I was writing in the multimedia environment,	TRMI frequency	IMP frequency	TRMI frequency	IMP frequency
8. I tried to focus my attention on choosing appropriate words and phrases.	7	8	3	2
9. I tried to think about whether the arguments followed the instruction of the essay.	6	9	4	1
10. I tried to mark the places in the composition with different colors that I thought required revision. I wouldn't revise them until I had completed my writing because I wouldn't like to break into my thoughts.	7	7	3	3
11. I tried to think about how much time I had remaining, adjusting my time arrangements to ensure completion of the writing task.	8	10	2	-
12. I tried to think about how to connect different parts of my essay.	7	10	3	-
13. I tried to think about whether I was using the correct grammar (e.g., tenses, prepositions, etc.).	8	6	2	4
14. I tried to think about whether I was using appropriate punctuation as well as the letter case.	9	10	1	0
15. I tried to modify the mistakes, following the prompts on the computer screen.	9	3	1	7
16. I tried to think about how many arguments I should have in the essay.	6	9	4	1
17. I tried to seek help from an online dictionary if I did not know how to express my own opinions.	10	10	-	-
18. I tried to think about what parts my essay should have.	7	10	-	3
19. I tried to monitor my writing actively, focusing my attention on the current writing task to avoid being distracted by other irrelevant information.	7	10	3	-

Table 8 illustrates the frequency of evaluating strategies in the study groups. The frequency of the respondents' answers shows that the IMP group had a better performance in using evaluating strategies, which signifies the superiority of individualized reflection on metacognitive strategies without the teacher's scaffolding.

TABLE 8
THE FREQUENCY OF USE FOR EVALUATING STRATEGIES

Strategies: Prompt evaluation after writing	Strongly Agree to Slightly Agree	Strongly Agree to Slightly Agree	Strongly Disagree to Slightly Disagree	Strongly Disagree to Slightly Disagree
After I finished writing in the multimedia environment,	TRMI frequency	IMP frequency	TRMI frequency	IMP frequency
20. I reread my essay and made sure that the language of my essay was clear.	7	10	3	-
21. I reread my essay and made sure that the organization was easy to follow.	7	10	3	-
22. I reread my essay and made sure that I had covered the content fully before I submitted it to my teacher.	7	10	3	-
23. I thought back to how I write and what I might do differently next time to improve my English writing.	-	10	10	-

V. DISCUSSION

The answer to the first research question obtained from comparing the means of TRMI and IMP showed that IMP outperformed TRMI in writing. Therefore, the individual focus was more effective for employing metacognitive strategies than receiving teachers' explicit instruction. This finding implies that teachers should encourage learners to focus and reflect on planning, monitoring, and evaluating during writing. The study highlights the role of teachers as facilitators who are ready to help learners when required. Explicit teaching of metacognitive strategies does not necessarily lead to their use by the learners. Individualized metacognitive strategies enhance learners' attention and allow them to engage in reflective practices (Sabah & Rashtchi, 2016). Learners' reflection and focus on metacognitive strategies without teachers' help causes mental involvement and contributes to conscious awareness to follow different stages in writing. Such practices help them overcome some of the challenges learners usually encounter while writing, such as generating ideas and finding appropriate words and structures. Besides, such focus helps them learn about their level of language proficiency, recognize their deficiencies, and thus use different online sources for text construction (Rashtchi & Khosroabadi, 2009). The present study aligns with Alamri (2019) that prior instruction is not necessary for using metacognitive strategies.

Another reason for the outperformance of the IMP group can be online courses. Learners in such classes might rely on themselves due to the lack of face-to-face interactions and feel more responsible for their learning. Accordingly, they may try to use strategies that help them in writing. The present study also finds support from Fitrianti and Susanti (2021), who concluded that learners use metacognitive strategies in online writing classes.

For answering the second research question, the researchers counted the frequency of the strategies used by the participants in each group. As the results showed, the IMP group used more planning strategies before getting started. The researchers assume that since the learners did not receive the teacher's explicit instruction, they tried to plan and follow a line of thought to write.

The frequency of the monitoring strategies also showed that the IMP group used them more than the TRMI. Individualized learning caused more cognitive involvement and boosted consciousness to focus on grammar and vocabulary needed for accurate writing (Rashtchi & Aghajanzadeh, 2008). Likewise, the IMP group used more strategies regarding evaluation strategies. Reflection on the questionnaire could increase their self-observation and self-evaluation due to not receiving the teacher's explicit instruction. Jozetajareh and Rashtchi (2019) argue that self-evaluation arises from self-correction and leads to more reflection. Researchers of the present study believe that encouraging students to reflect and write cultivates their learning responsibility and leads to autonomous learning.

VI. CONCLUSION

The present study revealed that learners who used metacognitive strategies in an online writing course without teachers' instruction of such strategies were more successful. Individualized learning cultivated conscious attention to planning, monitoring, and evaluating compositions. Consequently, learner autonomy was encouraged, and learners could use beneficial strategies more frequently.

However, this study was limited since it did not include the participants' journal writings or think-aloud protocols to clarify their challenges in writing tasks and employing metacognitive strategies. Further studies can focus on such aspects. The participants' personality characteristics could also have affected the results, which this study did not take into consideration. The researchers suggest investigating the impact of different error-correction strategies on using metacognitive strategies. The study has implications for EFL and ESL teachers who teach writing classes, particularly during the pandemic. Moreover, researchers interested in reflective practices can gain insights from this study.

APPENDIX. WRITING RUBRIC



UNIVERSITY of CAMBRIDGE
ESOL Examinations

IELTS TASK 2 Writing band descriptors (public version)

Band	Task Achievement	Coherence and Cohesion	Lexical Resource	Grammatical Range and Accuracy
9	<ul style="list-style-type: none"> fully addresses all parts of the task presents a fully developed position in answer to the question with relevant, fully extended and well supported ideas 	<ul style="list-style-type: none"> uses cohesion in such a way that it attracts no attention skillfully manages paragraphing 	<ul style="list-style-type: none"> uses a wide range of vocabulary with very natural and sophisticated control of lexical features; rare minor errors occur only as 'slips' 	<ul style="list-style-type: none"> uses a wide range of structures with full flexibility and accuracy; rare minor errors occur only as 'slips'
8	<ul style="list-style-type: none"> sufficiently addresses all parts of the task presents a well-developed response to the question with relevant, extended and supported ideas 	<ul style="list-style-type: none"> sequences information and ideas logically manages all aspects of cohesion well uses paragraphing sufficiently and appropriately 	<ul style="list-style-type: none"> uses a wide range of vocabulary fluently and flexibly to convey precise meanings skillfully uses uncommon lexical items but there may be occasional inaccuracies in word choice and collocation produces rare errors in spelling and/or word formation 	<ul style="list-style-type: none"> uses a wide range of structures the majority of sentences are error-free makes only very occasional errors or inappropriacies
7	<ul style="list-style-type: none"> addresses all parts of the task presents a clear position throughout the response presents, extends and supports main ideas, but there may be a tendency to overgeneralise and/or supporting ideas may lack focus 	<ul style="list-style-type: none"> logically organises information and ideas; there is clear progression throughout uses a range of cohesive devices appropriately although there may be some under-use presents a clear central topic within each paragraph 	<ul style="list-style-type: none"> uses a sufficient range of vocabulary to allow some flexibility and precision uses less common lexical items with some awareness of style and collocation may produce occasional errors in word choice, spelling and/or word formation 	<ul style="list-style-type: none"> uses a variety of complex structures produces frequent error-free sentences has good control of grammar and punctuation but may make a few errors
6	<ul style="list-style-type: none"> addresses all parts of the task although some parts may be more fully covered than others presents a relevant position although the conclusions may become unclear or repetitive presents relevant main ideas but some may be inadequately developed/unclear 	<ul style="list-style-type: none"> arranges information and ideas coherently and there is a clear overall progression uses cohesive devices effectively, but cohesion within and/or between sentences may be faulty or mechanical may not always use referencing clearly or appropriately uses paragraphing, but not always logically 	<ul style="list-style-type: none"> uses an adequate range of vocabulary for the task attempts to use less common vocabulary but with some inaccuracy makes some errors in spelling and/or word formation, but they do not impede communication 	<ul style="list-style-type: none"> uses a mix of simple and complex sentence forms makes some errors in grammar and punctuation but they rarely reduce communication

ACKNOWLEDGMENTS

The authors wish to thank the students who agreed to participate in the present study.

REFERENCES

- [1] Alamri, B. (2019). Exploring metacognitive strategies employed by ESL writers: Uses and awareness. *International Journal of English Linguistics*, 9(1), 159-168. <https://doi.org/10.5539/ijel.v9n1p159>
- [2] Al-jarrah, T. M., Mansor, N., Rashid, R. A., Ibrahim, B., & Al-Jarrah, J. M. (2018). EFL students' attitude toward using metacognitive strategies in writing. *English Language Teaching*, 11(10), 162-171. <https://doi.org/10.5539/elt.v11n10p162>
- [3] Al Moqbali, I. S., Al Humaidi, S., Al Mekhlafi, A., & Hilal, M. A. (2020). Metacognitive writing strategies used by Omani grade twelve students. *International Journal of Learning, Teaching and Educational Research*, 19(8), 214-232. <https://doi.org/https://doi.org/10.26803/ijlter.19.8.12>
- [4] Aryanjam, L., Rashtchi, M., & Maftoon, P. (2021). Boosting reading achievement by employing learner autonomy curriculum: Effects of strategy instruction. *Iranian Journal of English for Academic Purposes*, 10 (3), 51- 70.
- [5] Bailey, J., & Powell, P. (2008). *The practical writers with readings* (7th edition). Thomson Higher Education.
- [6] Briggs, A. R., Clark, J., & Hall, I. (2012). Building bridges: Understanding student transition to university. *Quality in Higher Education*, 18(1), 3-21. <https://doi.org/10.1080/13538322.2011.614468>
- [7] Cer, E. (2019). The instruction of writing strategies: The effect of the metacognitive strategy on the writing skills of pupils in secondary education. *SAGE Open*, 9(2), 1-17. <https://doi.org/10.1177/2158244019842681>
- [8] Cohen, J. W. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Lawrence Erlbaum.
- [9] Entwistle, N., & McCune, V. (2013). The disposition to understand for oneself at university: Integrating learning processes with motivation and metacognition. *British Journal of Educational Psychology*, 83(2), 267-279. <https://doi.org/10.1111/bjep.12010>
- [10] Fiani, A. (2020). Students' perception toward the enactment of metacognitive instruction in an EFL writing class: lesson learned from a private university in Indonesia. *Research and Innovation in Language Learning*, 3(3), 220-233. <http://dx.doi.org/10.33603/riill.v3i3.4105>
- [11] Fitrianti, N. A., & Arik Susanti, A. (2021). EFL students' metacognitive strategies in online-based learning: In relation to their writing quality. *PARAMASASTRA*, 8 (1), 1-19.
- [12] Flavell, J. H. (1979). Metacognition and cognitive monitoring: A new area of cognitive-developmental inquiry. *American Psychologist*, 34(10), 906-911. <https://doi.org/10.1037/0003-066X.34.10.906>
- [13] Flavell, J. H. (2016). Development of children's knowledge about the mind. In R. J. Sternberg, S. T. Fiske, & D. J. Foss (Eds.), *Scientists making a difference: One hundred eminent behavioral and brain scientists talk about their most important contributions* (pp. 198-201). Cambridge University Press.
- [14] JozeTajareh, M., & Rashtchi, M. (2019). The characteristics of reflective teacher and reflective teaching. *Roshd Foreign Language Teaching Journal*, 34(1), 7-13.

- [15] Oxford, R. L. (2016). *Teaching and researching language learning strategies*. Routledge.
- [16] Paris, S. G., & Winograd, P. (1990). How metacognition can promote academic learning and instruction. In B. F. Jones & L. Idol (Eds.), *Dimensions of thinking and cognitive instruction* (pp. 15–51). Lawrence Erlbaum.
- [17] Polio, C., & Friedman, D. A. (2017). *Understanding, evaluating, and conducting second language writing research*. Routledge.
- [18] Raoofi, S., Binandeh, M., & Rahmani, S. (2017). An Investigation into writing strategies and writing proficiency of university students. *Journal of Language Teaching and Research*, 8(1), 191-198. <https://doi.org/10.17507/jltr.0801.24>
- [19] Rashtchi, M. (2019). Scaffolding argumentative essay writing via reader-response approach: A case study. *Asian-Pacific Journal of Second and Foreign Language Education*, 4(12), 1-17. <https://doi.org/10.1186/s40862-019-0078-2>
- [20] Rashtchi, M., & Aghajanzadeh, M. (2008). Comparative critical reading strategy and writing achievement of Iranian EFL learners. *Journal of English Language Pedagogy and Practice*, 1(2), 117-130.
- [21] Rashtchi, M., & Khani, P. (2010). Improving Iranian EFL learners' oral proficiency through metacognitive strategies instruction. *Journal of English Language Studies*, 1(4), 137-156.
- [22] Rashtchi, M., & Ghandi, M. (2011). Writing revision strategies: Do they enhance writing ability? *Man and the Word (Zmogus ir Zodis)*, 13(3), 67-80.
- [23] Rashtchi, M., & Beiki, M. (2015). The effect of teacher-generated cooperative brainstorming versus learner-generated brainstorming on activating EFL learners' background knowledge in essay writing classes. *Indian Journal of Fundamental and Applied Life Sciences*, 5(S2), 1218-1227.
- [24] Rashtchi, M., & Birjandi, P. (2018). *Research methods a textbook for EFL learners*. Rahnama Press.
- [25] Rashtchi, M., & Mohammadi, M. A. (2017). Teaching lexical bundles to improve academic writing via tasks: Does the type of input matter? *Electronic Journal of Foreign Language Teaching*, 14(2), 201-219.
- [26] Rashtchi, M., Porkar, R., & Ghazi Mir Saeed, F. (2019). Product-based, process-based, and genre-based instructions in expository writing: Focusing on EFL learners' performance and strategy use. *European Journal of Education Studies*, 6(6), 115-136. <http://dx.doi.org/10.5281/zenodo.3427842>
- [27] Rashtchi, M., & Porkar, R. (2020). Brainstorming revisited: Does technology facilitate argumentative essay writing? *Language Teaching Research Quarterly*, 18, 40-52. <https://doi.org/10.32038/ltrq.2020.18.01>
- [28] Sabah, S., & Rashtchi, M. (2016). Critical thinking in personal narrative and reflective journal writings by in-service EFL teachers in Iran: Assessment of reflective writing. *Journal of Teaching Language Skills*, 35(3), 157-182. <https://doi.org/10.22099/jtls.2016.3900>
- [29] Schraw, G. (1998). Promoting general metacognitive awareness. *Instructional Science* 26 (1-2), 113-125. <https://doi.org/10.1023/A:1003044231033>
- [30] Schraw, G., Crippen, K., & Hartley, K. (2006). Promoting self-regulation in science education: Metacognition as part of a broader perspective on learning. *Research in Science Education* 36(1), 111-139. <https://doi.org/10.1007/s11165-005-3917-8>
- [31] Teng, M. F. (2020). Tertiary-level students' English writing performance and metacognitive awareness: A group metacognitive support perspective. *Scandinavian Journal of Educational Research*, 64 (4)551-568. <https://doi.org/10.1080/00313831.2019.1595712>
- [32] Wang, Z. & Han, F. (2017). Metacognitive knowledge and metacognitive control of writing strategy between high- and low-performing Chinese EFL writers. *Theory and Practice in Language Studies*, 7(7), 523-532. <http://dx.doi.org/10.17507/tpls.0707.04>
- [33] Xiao, Y. (2007). Applying metacognition in EFL writing instruction in China. *Reflections on English Language Teaching*, 6 (1), 19-33.
- [34] Young, A., & Fry, J. (2008). Metacognitive awareness and academic achievement in college students. *Journal of the Scholarship of Teaching and Learning*, 8(2), 1-10.
- [35] Yulianti, D. B. (2018). Learning strategies applied by the students in writing English text. *Journal on English as a Foreign Language*, 8(1), 19-38. <https://doi.org/10.23971/jevl.v8i1.583>
- [36] Zhang, L. J., & Qin, T. L. (2018). Validating a questionnaire on EFL writers' metacognitive awareness of writing strategies in multimedia environments. In Å. Haukås, C. Bjørke, & M. Dypedahl (Eds.). *Metacognition in language learning and teaching* (pp. 157-178). Routledge. Retrieved June 25, 2021, from <https://www.taylorfrancis.com/chapters/oa-edit/10.4324/9781351049146-9/validating-questionnaire-efl-writers-metacognitive-awareness-writing-strategies-multimedia-environments-lawrence-jun-zhang-tony-limin-qinavailable>



Maryam Shirvani was born in Iran in September 1992. She has her B.A. and M.A. degrees in architecture from Islamic Azad University, Central Tehran Branch, Iran.

Her enthusiasm for teaching English motivated her to participate in several teacher training courses and become an English teacher after graduation. She has been teaching English and has worked as an English teacher in several schools in Tehran for ten years. She has also served as the supervisor of secondary schools in Tehran, Iran, for five years.

She is currently teaching in private and online group classes. She is also a coordinator of online English classes. She has published two papers in the domain of language teaching. One is published in MEXTESOL Journal and the other in Theory and Practice in Language Studies. Her areas of interest include teaching language skills and sub-skills and English grammar to children and adults.



Reza Porkar was born in Iran in 1980. He got his B.A. and M A. degrees in TEFL from Islamic Azad University, North Tehran Branch. He is currently a Ph.D. candidate in TEFL at Islamic Azad University, North Tehran Branch. His Ph.D. dissertation on comparing the effects of augmented reality and virtual reality is at its final stages.

He has been teaching at the TEFL Department of Islamic Azad University, North Tehran Branch as a visiting lecturer since 2011. He teaches several courses, including English Speaking and Listening, Language Teaching Methodology, First Language Acquisition, and Second Language Learning. He has also taught English in different language schools for 12 years.

He has published several articles and books. His book on Theories of First Language Acquisition has been approved and used as a university coursebook. His areas of interest include English language teaching methodology, augmented reality, virtual reality in ESL/EFL settings, and theories of first language acquisition.