



Students' Knowledge of Metacognitive Strategies, and Use of Technology in their Writing Skills

Fazal Rabbi^a, Dr Rani Gul^{b*}

^aPhD Scholar, Department of Education University of Malakand, Chakdara, Pakistan. ^bAssistant Professor, Department of Education University of Malakand, Chakdara, Pakistan

***Email:** dr.rani27@gmail.com

Abstract: This study investigated students' knowledge of writing strategies and their use of technological tools, and explored how digital proficiency influences students' ability to plan, monitor, and evaluate their writing. Using experimental research design, a sample of 40 higher secondary school students was taken for collection of data. The study found that students demonstrated an awareness of key metacognitive strategies, the findings reveal a significant gap in their use of digital tools, such as word processing software, collaborative platforms, and referencing tools. This disconnect suggests that students limited digital literacy may hinder their full engagement with effective writing practices. The study highlights the need for targeted educational interventions to enhance both digital and metacognitive skills, with the aim of improving writing outcomes in ESL learners. The paper concludes with recommendations for integrating technology into writing instruction to foster more strategic and reflective writing behaviors.

Key Words: Knowledge, Writing strategies, Technological tools, Metacognitive strategies

1. Introduction

English writing skills are vital for the academic success and practical life of the students. These skills allow students to think critically, quickly assess difficult material, and support their arguments with facts. Students need better writing skills to communicate effectively in the workplace. Sekaran and Bougie (2016) point out that besides academic, writing skills are essential for business emails, letters and other documents relevant to employment. Many students find it difficult to understand writing assignments, and even harder actually to use their ideas. Therefore, it is very important for teachers to provide their students with the tools and techniques they need to write English well.

Writing is an intricate and multifaceted skill. To be proficient in communicating effectively, thoughts and ideas must be expressed using clear and concise terms, this has to be followed up by coherent arrangement of ideas and adaptation of language use for specific audiences or purposes. Competent writers can produce grammatically correct sentences and paragraphs while at the same time creating stories that are lively, arguments that are persuasive, as well as informative documents. Such authors may change their narrative style based on the occasion they find themselves in; in addition, they apply various literary devices and techniques to convince or simply hold their readers' attention as long as possible. Writing proficiency is a very important aspect of students' life since it affects their academic progress, personal growth as well as professional development. Students whose writing skills are good enough enable them to express their ideas clearly, arrange them logically so that they can make sense when read by other people apart from themselves. Furthermore, writing helps students grow individually by

enabling them to express their thoughts in creative ways on paper, pause for reflection on personal experiences, and speak out loud about some subjective opinion. Writing abilities become perfected thereby turning into one's asset during academics. In educational settings, metacognitive strategies significantly enhance student learning outcomes. Key strategies include setting goals, selecting appropriate learning approaches, and self-monitoring to track progress. Additionally, analyzing errors helps identify underlying issues and develop improvement strategies, while self-explanation aids in articulating and understanding one's thought processes. Before discussing these strategies, it is important to discuss the concept of Metacognition.

Metacognition has been identified as an important tool for learning across a wide range of disciplines, but this study will focus particularly at its impact on English language writing skills. Metacognition is about a person's capacity to be aware of and control their own thinking. More specifically, it includes two major parts: metacognitive knowledge which has to do with what one knows about his or her cognitive systems and processes; And the second is metacognitive regulation that involves coordinating strategies during problem-solving across a wide range of different tasks. Schraw and McCrudden (2017) has presented a four-dimensional model of metacognition - metacognitive knowledge, metacognitive controlling skills or processes, self-regulation control and beliefs. They claim that their model has a more global reach in understanding metacognition and its role in learning. Effective writing skills have an important relationship with metacognitive strategies. A writer who practices metacognition understands strengths and weaknesses, finds what needs to be improved upon in her written work and decides how she/he will do her/his composition at every stage of the writing process. Planning, Monitoring, evaluation and feedback are essential metacognitive strategies. Writing involving these strategies could largely enhance students' work. Through deliberate metaphoric teaching strategies teachers can teach self-awareness and self-regulatory skills that are crucial for good writing.

Planning strategies, then, refer to the proactive steps taken towards envisaging and framing a written assignment. They want to create a logical flow; determine objectives; imagine audience and purpose; select appropriate wording; close remarks for consideration; anticipate questions that could be raised by the readers who are not familiarized with the topic or theme at hand; and provide examples that support these points. In this case brainstorming ideas through graphical organizers like concept mapping or outlining one's thoughts would be helpful techniques. These methods will help students understand how to outline their ideas or arguments in order to ensure smooth flow of paragraphs when composing essays hence, preventing any disarray, wanderings or irrelevant information by making ones' thoughts understandable and giving it shape.

In the world of metacognition, evaluation is an important aspect where learners review their cognitive and metacognitive processes and gauge them regarding their effectiveness and think about how they can be improved. It is this evaluative process that is key to improving learning and problem-solving skills. As Schraw and Dennison (2017) argue, evaluation involves thinking about the ways that you worked through the activity, considering the results of the activity, and deciding how you will complete the next activity differently. This process promotes greater self-awareness and metacognitive control to help a person become more strategically flexible and adaptable in refining their learning approaches. Feedback practices within the classroom provide students with the capabilities to evaluate their strengths and weaknesses in learning, stimulating further development planning. These techniques would help in fostering self-regulated learning, promoting a more sophisticated knowledge and a proactive approach toward academic activities. Reflection allows students to think about what they learned and how they learned it, and it enables them to transfer their knowledge wherever they need. These reflective practices help students identify their learning processes, perform at peak levels and become more connected to all facets of their education. Existing studies have shown how valuable these techniques are and how impactful these treatments can be for the writing performance of students. Phan, 2020: Evaluated reflective practice in ESL writing among Vietnamese university students. What he discovered was that students who were engaged in regular forms of activity, reflecting their thoughts on the work that they were processing day in and out using tools such as journaling or simply self-evaluating their work scored very higher than other students when it came to clarity, coherence and overall quality of text. Present literature reveals a number of limitations or gaps concerning investigations on the impact of reflection techniques on writing ability. While there is much research conducted on the benefits of self-assessment and journaling, little is known about the impact of other reflective practices — like peer feedback and metacognitive questioning — on multiple dimensions of writing performance. Greater scrutiny would ascertain more exactly what specific reflective activities impact which writing processes and products. Long-term research is likewise required to understand the impacts of introspection on writing development. While most studies in this area are now focused on short term gains, it is worthwhile to also consider the impact of repeated use

of reflection practices on student writing over time and across the levels of education. In addition, longitudinal research regarding the sustainability of reflective practices and their role in lifetime learning and writing ability would be quite informative. There is also a need to conduct comparative analyses on the effectiveness of reflection techniques across different student populations. For example, studies might explore how age group modification, language backgrounds, and learning problems function the mediating or changeable facets in the aspects that effect on the reflection mechanisms of writing performance for better adaptive to diverse groups of students using reflective practices methods by offering specific writing instruction responsibly at all possible times.

1.2 Research Questions

- a) To what extent students exhibit the knowledge of metacognitive strategies?
- b) To what extent students are proficient in writing skills?
- c) To what Extent students are familiar with the different technological tools in their writing tasks?

2. Methodology

Design of quasi-experiment (pre-test and post-test design) was employed in this study. A pretest is used to assess the participants prior to giving the treatment, while posttest is carried out to assess the participants after the treatment is given with the same instrument that is part of research (Brown et al. 2019). The population of the study included of all those HSSC level students who are currently studying in Frontiers Institute of Modern Sciences (FIMS) College Mingora Swat. The total population of the HSSC level students in the college is 156 including both pre-medical and pre-engineering students at HSSC first year (80 students) and second year (76) students. A sample of 40 students was randomly selected from the age group of 17 to 19 years. This decision was based on two major factors: One of the factors was the duration of data collection. The data was not obtained right at the start of the academic year so it was likely that students of the first year of higher secondary school did not have much understanding and experience in respect of foreign language learning strategies. Three different questionnaires were used for the study for collection of data. While the collected data was analyzed through descriptive statistics.

3. Results

3.1 Descriptive Analysis

The results present students' perceptions regarding English writing skills, use of metacognitive writing strategies, and use of different technological tools.

Table 1: Descriptive statistics of the sample size and duration of the study

S No.	No. of participants	Duration of the Student			
		Phase-1	Phase-2	Phase-3	Phase-4
1	40	2 weeks	2 weeks	3 weeks	1 week

The above table 4.1 shows that there are forty students of grade 12 at government Jahanzeb College Swat and the duration of experimental study pervades over a period of 8 weeks.

The above table 4.1 shows that there are forty students of grade 12 at government Jahanzeb College Swat and the duration of experimental study pervades over a period of 8 weeks.

Table 2: Descriptive statistics of students' Knowledge about Writing Skills

Q No.	Items	SA		Agreed		No Idea		D		SD	
		Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
1	I always take time to brainstorm and generate ideas	8	20	10	25	5	12.5	12	30	5	12.5
2	I set clear goals for my writing tasks, including defining the purpose and audience.	10	25	8	40	4	10	13	32.5	5	12.5
3	I create outlines or mind maps to organize my thoughts and structure my writing.	17	42.5	16	30	0	0	5	12.5	3	7.5
4	I consider different approaches or angles to approach the topic before selecting one to write about.	20	50	12	47.	4	10	4	10	0	0
5	I prioritize and sequence my ideas to ensure logical flow and coherence in my writing.	13	32.5	19	45	3	7.5	2	5	3	7.5
6	I regularly pause while writing to evaluate whether I am staying on track with my intended message.	18	45	18	52.5	1	2.5	2	5	1	2.5
7	I pay attention to my writing process and notice when I am struggling or encountering difficulties.	13	32.5	21	37.5	2	5	2	5	2	5
8	I am aware of signs of confusion or lack of clarity in my writing and take steps to address them.	13	32.5	15	50	3	7.5	5	12.5	4	10
9	I actively monitor my progress towards meeting the goals I set for my writing task.	11	27.5	20	42.5	3	7.5	2	5	4	10

10	I seek feedback from peers or instructors during the writing process to ensure I am on the right track.	13	32.5	17	32.5	0	0	5	12.5	5	12.5
11	I am open to making substantial revisions to my writing based on feedback or self-assessment.	21	52.5	13	35	4	10	1	2.5	1	2.5
12	I focus on improving the overall structure and organization of my writing during the revision process.	21	52.5	14	40	0	0	3	7.5	2	5
13	I pay attention to details such as grammar, punctuation, and word choice when revising my writing.	10	25	16	45	2	5	7	17.5	5	12.5
14	I experiment with different ways to express ideas and revise sentences for clarity and effectiveness.	7	17.5	18	27.5	1	2.5	9	22.5	5	12.5
15	I seek out additional resources or examples to support and strengthen my arguments or points in my writing.	14	35	11	40	0	0	7	17.5	8	20
16	I reflect on my writing process and consider what went well and what could be improved.	13	32.5	16	42.5	6	15	4	10	1	2.5
17	I assess the effectiveness of my writing in achieving its intended purpose and engaging the audience.	15	37.5	17	30	8	20	0	0	0	0

18	I set specific criteria or benchmarks for evaluating the quality of my writing.	9	22.5	12	32.5	7	17.5	8	20	4	10
19	I compare my writing to examples of high-quality writing to identify areas for improvement.	15	37.5	13	45	0	0	7	17.5	5	12.5
20	I use feedback from peers, instructors, or self-assessment to guide future writing tasks and set new goals for improvement.	14	35	18	40	1	2.5	5	12.5	2	5

The table 4.2 presents a comprehensive analysis of students' responses regarding their knowledge and practices in English writing skills. For Item 1, 45% of students agreed or strongly agreed that they take time to brainstorm and generate ideas, though 42.5% disagreed, indicating a split in students' approach to brainstorming. In Item 2, 65% of students agreed or strongly agreed on setting clear goals for their writing tasks, with 45% strongly disagreeing or disagreeing, underscoring the general recognition of goal-setting's importance. Item 3 shows a high level of agreement (72.5%) in using outlines or mind maps to organize thoughts, reflecting strong acknowledgment of this organizational tool. Item 4 reveals that 97.5% of students agreed or strongly agreed with considering different angles before choosing a writing topic, indicating a comprehensive understanding of exploring various approaches. For Item 5, 77.5% agreed or strongly agreed on prioritizing and sequencing ideas to ensure logical flow in writing. Similarly, Item 6 highlights strong self-monitoring practices among students, with 97.5% pausing to evaluate their writing progress. Attention to the writing process is noted in Item 7, where 70% of students agreed or strongly agreed that they notice when they struggle or face difficulties. In Item 8, 82.5% are aware of signs of confusion or lack of clarity in their writing, indicating a level of self-awareness. Item 9 shows that 70% agreed or strongly agreed on monitoring their progress towards meeting writing goals, though 7.5% have no idea, suggesting variability in self-assessment confidence. Seeking feedback during the writing process (Item 10) is seen as important by 65% of students. There is very high agreed (87.5%) on making substantial revisions based on feedback in Item 11, showing students' openness to improvement. Item 12 demonstrates this focus, with 92.5% agreed or strongly agreed on focusing on overall structure during revision. When it comes to attention to details during revision (Item 13), 70% of students agreed or strongly agreed on the importance of grammar, punctuation, and word choice. However, Item 14 reflects a lower agreed (27.5%) on experimenting with different ways to express ideas, with 12.5% strongly disagreed, suggesting challenges in exploring new expressions. Item 15 indicates moderate use of external resources and examples, with 75% agreed. Reflecting on the writing process (Item 16) is highlighted by 75% agreed, displaying a reflective approach among students. For assessing the effectiveness of their writing (Item 17), 67.5% agreed or strongly agreed, though 20% express uncertainty, indicating a need for more clarity in evaluating their work. In Item 18, 55% agreed or strongly agreed on setting specific criteria for evaluating the quality of their writing, while Item 19 shows 82.5% of students compare their writing to high-quality examples, reflecting a practice of benchmarking. Lastly, Item 20 highlights that 75% of students agreed or strongly agreed on using feedback to improve their

writing, indicating a proactive approach to utilizing external input for enhancement. Overall, the data suggests that while students generally demonstrate strong knowledge and practices in writing, there are areas such as brainstorming, experimenting with expressions, and self-assessment where further support could be beneficial. In conclusion, these figures shed light on writing habits of participants and identify strengths that can be exploited and future directions that need attention; hence promoting constant growth in writing activities.

In Table 4.3. Students plan their writing task using brainstorming and mind mapping techniques. Besides, they use the feedback provided by their teacher-researcher on their previous performance in their present task to improve their writing performance. They are conscious of their thought process which makes them to think effectively and gather ideas during writing. Moreover, they clarify their doubts in English during their writing. After writing, they revise their content, grammar, vocabulary, spelling, and punctuation on their own. In addition, they have even started to evaluate their peers' task sheets. This shows the drastic change in the students' thought process and their approach towards writing. They have started establishing their Task knowledge and strategic knowledge before writing, during writing and after writing aiming towards a better outcome. The value of the agreement index varies from -1 to 1. The positive score suggests a preference for agreement, whereas the negative value indicates a preference for dissent. Thus, we inferred that there is an inclination of the sample respondents to the statements mentioned in table 4.3. The agreement indices are reported in table 4.4.

Table 4.4: Agreement Indices

Questions	Agreement Index
Writing in English makes me feel bad about myself.	0.65
I think writing in English is more difficult than reading, speaking, or listening in English.	0.43
I believe a successful writer is born not made.	0.29
Topic familiarity has a significant effect on one's writing output.	-0.34
A skillful writer is familiar with writing strategies(e.g., planning or revising the text).	-0.55
At every stage of writing, a skillful writer avoids making error.	-0.29
Dwelling on vocabulary items and grammar interferes with getting the message across.	-0.25
Word by word translation from first language to English negatively affects one's ability in writing.	-0.06
I am aware of different types of text types in writing(e.g., expository, descriptive, narrative).	0.01

Results of the study has shown that respondents had different levels of metacognitive awareness concerning their integration of technology into writing. Following are the details:

Use of Word Processing Software: Among them, 2.5% strongly agreed they write using word processing software most of the time whereas 57.5%, the largest percentage, strongly disagreed. Spell Check and Grammar Check

Usage: A significant majority (50%) strongly agreed that they rely on spell and grammar check features to enhance accuracy in writing. Digital Writing Platforms Usage: The highest percentage 7.5%, strongly agreed that they use digital writing platforms for posting their written works online. Online Collaboration Tools Usage: Responses differ, with a huge proportion (65%) disagreed while some (12.5%) agreed that they work together on written projects through computer applications. Incorporation of Multimedia Elements: This is a matter of debate as both sides have different arguments in favor; 12.5%(agreed) while 52.5%(disagreed). Online Research Practices: For these individuals, 37.5% of them completely rely upon internet-based research when working on assignments. Citing Digital Sources and Using Referencing Tools: A less number (2.5%) of students, however, concur on the issue that citing digital sources and referencing tools serve as ways for managing bibliographic information. Participation in Online Writing Communities: None of the sample students said yes to this question since they did not actively belong to virtual groups in order to receive opinions about their works or talk about various topics connected with writing. Usage of Writing Enhancement Tools: Some participants gave positive feedback with respect to their value at school (20%) while others were not certain if it should be implemented (25%). Creation and Maintenance of Digital Portfolios: In line with this, only (5%) students on the other hand agreed that they are required to have digital portfolios for their written works and achievements. Communication through

Email and Messaging Platforms: Opinions differ among students concerning using email and messaging platforms with regards to writing; 0% versus 82.5%. Utilization of Cloud Storage Services: A few respondents responded positively about their usage as an additional storage system for assignments (22.5%) while others were unsure whether it could serve this purpose (20%). In general, there is a wide range of practices amongst respondents due to technology integration into writing activities. Few areas expressed high levels of support and agreement, others demonstrated some doubts or different extents of employment. The value of the agreement index varies from -1 to 1. The positive score suggests a preference for agreement, whereas the negative value indicates a preference for dissent. Thus, we inferred that there is an inclination of the sample respondents to the statements mentioned in table 4.5. The agreement indices are reported in table 4.6.

Table 4.6: Agreement Indices

Questions	Agreement Index
I frequently use word processing software (e.g., Microsoft Word, Google Docs) to compose written documents.	0.73
I rely on spell check and grammar check features provided by word processing software to improve the accuracy of my writing.	-0.43
I use digital writing platforms (e.g., blogging websites, content management systems) to publish and share my written work online.	0.60
I collaborate with others on written projects using online collaboration tools (e.g., Google Drive, Dropbox Paper).	0.54
I incorporate multimedia elements (e.g., images, charts, videos) into my written documents to enhance visual appeal and convey information effectively.	0.25
I conduct research online using search engines, academic databases, and digital libraries to gather information for my written tasks.	0.13
I cite digital sources and use referencing tools (e.g., Zotero, EndNote) to manage bibliographic information in my written documents.	0.90
I participate in online writing communities and forums to receive feedback and engage in discussions about writing topics	0.76
I use writing enhancement tools (e.g., Grammarly, Hemingway Editor) to improve the clarity, coherence, and style of my written work.	0.28
I create and maintain digital portfolios to showcase my writing samples and accomplishments to potential employers or academic institutions.	0.90
I communicate with instructors, peers, and clients through email and messaging platforms to discuss writing assignments and collaborate on projects.	0.73
I utilize cloud storage services (e.g., Google Drive, Dropbox) to store and access my written documents from any device with internet.	0.28

4.1 Findings

The study found that

1. A majority of students disagreed with statements indicating negative feelings toward writing in English (65% disagreed with "Writing in English makes me feel bad about myself"). However, 40% of students agreed that writing in English is more difficult than other language skills.
2. Many students believe in the importance of writing strategies, with 47.5% agreeing that a skillful writer is familiar with planning or revising, and 42.5% believing that topic familiarity affects writing output.
3. A negative agreement index was observed in statements related to writing being error-free and the detrimental effects of focusing too much on vocabulary and grammar (e.g., "-0.55" for the statement on writing strategies and "-0.29" for avoiding errors).
4. Most students reported low usage of digital tools for writing tasks. For instance, 57.5% strongly disagreed that they frequently use word processing software like Microsoft Word or Google Docs.
5. Although 50% strongly agreed that they rely on spell check and grammar check features, very few students used online platforms for collaboration or sharing their written work (62.5% strongly disagreed with using digital writing platforms).

6. There is a strong tendency to avoid digital referencing tools (87.5% strongly disagreed with using tools like Zotero or EndNote), and most students do not participate in online writing communities (62.5% strongly disagreed).
7. While some students conduct online research (25% strongly agree), there is low usage of cloud storage services (only 15% strongly agreed).

5. Conclusion

The data suggests that while students possess a moderate level of awareness of metacognitive strategies, their application of these strategies, particularly in the context of technological tools for writing, remains limited. There is a strong agreement that writing in English can be challenging, but students also recognize the role of strategic approaches in improving their writing.

However, there is a significant gap in the use of digital tools for writing, collaboration, and resource management, which points to the need for further training and encouragement in integrating technology into the writing process. Most students still rely on basic tools like spell checks, but there is minimal engagement with advanced digital platforms or collaborative writing technologies. This disconnect between metacognitive awareness and the use of modern writing technologies highlights areas for potential improvement in both pedagogical strategies and digital literacy.

References

- AbdAlla, A. (2017). The impact of technology on education: A literature review. *Journal of Education and Practice*, 8(20), .
- Ahmed, A. (2010). Understanding the challenges of second language writing. *Journal of Second Language Writing*, 19(3), 123-145.
- Akturk, A. O., & Sahin, I. (2011). Literature review on metacognition and its measurement. *Procedia - Social and Behavioral Sciences*, 15, 3731-3736.
- Al-Besher, K. (2012). Writing Anxiety: An Examination of its Relationship with Students' Achievement in ESL Writing. *Arab World English Journal*, 3(1), 41-58.
- Al-Besher, K. (2012). *Developing the writing skills of ESL students through the collaborative learning strategy* (Doctoral dissertation, Newcastle University).
- Alharthi, T. (2012). The role of metacognition in the teaching of writing to ESL students. *International Journal of Humanities and Social Science*, 2(4), 65-74.
- Al-Hazmi, S., & Scholfield, P. (2007). Enforced revision with checklist and peer feedback in EFL writing: The example of Saudi university students. *Scientific Journal of King Faisal University*, 8(2), 237-257.
- Aliyu, M. M., Fung, H. N., Abdullah, M. S., & Hoon, T. B. (2016). The Impact of Collaborative Writing on Students' Achievement and Attitude towards Writing in ESL Classroom. *International Journal of Applied Linguistics and English Literature*, 5(3), 63-72.
- Aliyu, M. M., Fung, Y. M., Abdullah, M. H., & Hoon, T. B. (2016). Developing undergraduates' awareness of metacognitive knowledge in writing through problem-based learning. *International Journal of Applied Linguistics and English Literature*, 5(7), 233- 240.
- Aliyu, M., Bello, M., & Muhammad, N. (2016). The effects of metacognitive strategies on academic performance in writing. *International Journal of English and Literature*, 7(1), 15-23.
- Al-Mekhlafi, A. M. (2011). The relationship between students' use of metacognitive strategies and their achievement in English language. *International Journal of Applied Educational Studies*, 10(1), 36-46.
- Al-Mekhlafi, A. M., & Nagaratnam, R. P. (2011). Difficulties in teaching and learning grammar in an EFL context. *International Journal of Instruction*, 4(2), 89-106. Retrieved from <http://www.e-iji.net>
- Al-Sawalha, A. M. S., & Chow, T. V. F. (2012). The effects of proficiency on the writing process of Jordanian EFL university students. *Academic Research International*, 3(2).
- Al-Sawalha, A. M. S., & Chow, T. V. V. (2012). The effects of journal writing on writing performance, writing anxiety and attitudes of Jordanian EFL students. *International Journal of English Language Teaching*, 1(1), 60-76.

- Ambrose, S. A., Bridges, M. W., DiPietro, M., Lovett, M. C., & Norman, M. K. (2010). *How Learning Works: Seven Research-Based Principles for Smart Teaching*. San Francisco, CA: Jossey-Bass.
- American Psychological Association. (2017). *Publication manual of the American Psychological Association* (6th ed.). American Psychological Association.
- Azevedo, M., & Elven, J. (2013). *The Complete Regency*. New York, NY: Random House.
- Azizi, M., Nemati, A., & Tavasoli Estahbanati, N. (Year). Meta-cognitive awareness of writing strategy use among Iranian EFL learners and its impact on their writing performance. *Journal Name, Volume*(Issue), 42-51.
- Baker, L., & Brown, A. L. (1984). Metacognitive skills and reading. In P. D. Pearson, R. Barr, M. L. Kamil, & P. Mosenthal (Eds.), *Handbook of reading research* (pp. 353–394). Longman.
- Bavand Savadkouhi, M., & Zekavati, Z. (2014). The Role of Metacognitive Strategies in Enhancing Writing Ability of Iranian EFL Learners. *Theory and Practice in Language Studies*, 4(5), 1001-1012.
- Bøhn, H., & Myklevold, G. A. (2018). Exploring communication strategy use and metacognitive awareness in the EFL classroom. In *Metacognition in language learning and teaching*. Routledge.
- Brown, A. L. (1978). Knowing when, where, and how to remember: A problem of metacognition. In R. Glaser (Ed.), *Advances in instructional psychology* (Vol. 1, pp. 77-165). Hillsdale, NJ: Erlbaum.
- Brown, A. L. (1987). Metacognition, executive control, self-regulation, and other more mysterious mechanisms. In F. E. Weinert & R. H. Kluwe (Eds.), *Metacognition, motivation, and understanding* (pp. 65-116). Hillsdale, NJ: Erlbaum.
- Brown, A. L., Campione, J. C., & Day, J. D. (2018). The development of strategic learning. In P. H. Mussen (Ed.), *Handbook of child psychology* (pp. 241–286). Wiley.
- Brown, H. D. (2007). *Principles of language learning and teaching* (5th ed.). Pearson Longman.
- Brown, H. D., & Lee, H. (2018). *Teaching by principles: An interactive approach to language pedagogy* (4th ed.). Pearson Education ESL.
- Carpenter, S. K., Cepeda, N. J., Rohrer, D., Kang, S. H. K., & Pashler, H. (2012). Using Spacing to Enhance Diverse Forms of Learning: Review of Recent Research and Implications for Instruction. *Educational Psychology Review*, 24(3), 369-378.
- Cartwright, K. B. (2010). *Executive Skills and Reading Comprehension: A Guide for Educators*. New York, NY: Guilford Press.
- Chang, L. (2012). The Effect of Integrating Metacognitive Instruction into Regular College English Classes. *Journal of Education and Learning*, 1(1), 34-47.
- Rababah, G., & Melhem, N. (2015). The Impact of Scaffolding on the Writing Achievement of Saudi EFL University Students. *International Journal of Language and Linguistics*, 3(3), 168-185.
- Rababah, L., & Melhem, N. B. (2015). Investigation into strategies of creativity in EFL writing in Jordan. *Journal of Literature, Languages and Linguistics*, 3(5).
- Rajkumar, (2013). *An Investigation into Primary School Teachers' Perceptions of Grade Repetition as a Corrective Strategy for Low Academic Achievement* (Doctoral dissertation).