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MEGUMI UEMI • YUYA YAMAMOTO
• AKIKO TAKAGI • BEN JOICEY
• WAYNE DEVITTE • JAMES DUNN

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Contents

Metacognitive Activities as Critical Thinking with L2 Writing Assignments

WAYNE DEVITTE
TOKAI UNIVERSITY

Abstract: When presenting L2 learners with writing assignments and tests, it is important to assist them in more than just learning syntax and lexical items. Learners might not necessarily internalize teacher feedback and correction when they review completed assignments. As an opportunity to enhance learning in L2 classrooms, metacognition focus learners' attention on the how they felt and what they thought while they were working on their assignments post-task. Metacognition (i.e., thinking about thinking) provides learners with critical thinking skills that directly relate to their ability to complete and improve their L2 writing. This article briefly examines what metacognition is, how it relates to critical thinking, and offers a few suggestions for how it might be implemented in L2 writing classes. Furthermore, it also makes some suggestions for future study for teachers and researchers.

Second language teachers are likely to be familiar with the following scenario: they spend a considerable amount of time reading, commenting on, editing and grading writing assignments and tests only to return them to their students whereupon the students look at the grade and then put the paper in their bookbag or binder never to look at it again. While not only disappointing for the teacher, this all-too-common situation is also a missed opportunity for learners. As Choi (2013) explains, the purpose of many L2 writing education courses is to improve L2 language knowledge and skills. This means that L2 language classrooms typically highlight L2 learners focusing on developing writing proficiency, usually emphasising lexical knowledge, grammatical knowledge, along with content and organization (Schoonen, Snellings, Stevenson, & Gelderen, 2009). There may be attempts to improve learners' metacognitive knowledge (and affective factors) as discussed by Schoonen, Snellings, Stevenson, & Gelderen, (2009), however, it is also likely that there is not enough stress on developing metacognitive knowledge or metacognitive experiences, and by extension metacognitive strategies that learners can cultivate in order to improve their ability to be effective learners in and out of the classroomn. In recent years, metacognition research focused on L2 writing has mainly involved these three components (e.g., Wu, 2006; Karlen, 2017; Zhang & Qin, 2018). This is because it is possible that some L2 writing problems are potentially rooted in learners not having developed one or more of these

metacognitive components (Negretti & McGrath, 2018; Teng, 2020). This article will discuss why metacognition in L2 writing classrooms may benefit learners and offer potential ideas for how metacognition skills might be introduced to learners during and after writing assignments.

Colloquially defined as "thinking about thinking", psychology defines metacognition as an executive process that manages difficult tasks such as "making inferences, recognizing assumptions, making deductions, coming up with interpretations, and evaluating arguments" (Magno, 2010, p. 150). It is also likely that metacognitive and cognitive strategies overlap (Livingston, 2003). Metacognition has been described as consisting of two processes: metacognitive knowledge and metacognitive experiences (Flavell, 1979, 1987). The former emphasizes knowledge that can be used to control and is about cognitive processes. In other words, according to Livingston (2003), knowledge is metacognitive when it is used in a manner to ensure that a goal is met. It can guide a learner toward thinking about how they can accomplish a specific goal such as improving their writing. This can be achieved by having learners assess tasks through various lenses such as personal variables (e.g., what they know or do not know, how much they need to use a dictionary, etc.), task variables (e.g., how long, or difficult the task is) and strategy variables (e.g., how they can approach the task by structuring it, breaking it into logical chunks). Livingston also suggests that a learner's metacognitive

assessment of a task can precede or follow their completion of the task (Livingston, 2003). Metacognitive experiences refer to raising a learner's awareness of their feelings during a task, which again can be done prior to or after that task culminating in assisting learners in raising their awareness of their own experiences (i.e., linking personal experience to the goals of the task), knowledge (i.e., linking what they know to the goals of the task), learning preferences (i.e., considering how their favored mode of learning relates to completing the goal of the task), strengths (i.e., considering how to best use their strengths in completing the goal of the task), and limitations (i.e., how their weaknesses might affect their ability to complete the goal of the task). Furthermore, they learn how these skills can be used to determine how well they might perform on any given task (Flavell 1987; Schoenfeld 1983, 1985, 1987; Winn & Snyder 1996). While there is some debate about defining metacognition, what is clear is that many researchers correlate it with critical thinking.

As Dean & Kuhn argue (2004), there is a multitude of definitions of critical thinking, however, they suggest that critical thinking "entails awareness of one's own thinking and reflection on the thinking of self and others as objects of cognition" (p. 2). This implies that metacognitive activities that help learners to become more aware and self-reflective are a natural extension of critical thinking. Metacognition can be viewed as a predictor of critical thinking as it

indicates that learners have active control over the cognitive processes involved in learning (higher order thinking skills) (Brown, 2004). Additionally, as Dean & Kuhn (2004) state, metacognition is defined in similar terms as awareness and management of one's thoughts. In cognitive psychology, these kinds of cognitive functions are most often examined under the heading of "executive control" which as Kuhn & Dean (2004) suggest, critical thinking requires a form of meta-level operation. Brown (2004) also argues that mental and cognitive skills at an executive level (such as metacognition) are required to attain critical thinking. Magno (2010) further supports this notion by linking higher-order thinking to metacognition, or in other words, critical thinking necessitates executive control when the executive processes are metacognitive. As learners are working on or when they have completed writing assignments, it is important that feedback given to them includes a metacognitive component as it will help them internalize the feedback and further develop their critical thinking skills as well as their writing performance.

The idea of incorporating metacognitive activities for L2 writing learners originates in the idea that the most common form of feedback on writing for learners is provided by a teacher through correction or comments (Ferris, 2006), with peer feedback being also quite common. Truscott (1996) has indicated that there remains considerable debate on the effectiveness of teacher corrective feedback, noting that

corrective feedback may be useless or even detrimental in that learners either ignore the feedback or simply copy corrections with little thought. Recently, research has begun to demonstrate that there are multiple factors and conditions that determine the effectiveness of feedback (Ferris, 2006). A factor of concern for this article is peer feedback. Though more research is needed, one documented outcome of peer feedback which is beneficial to learners is that they seem to benefit from giving feedback rather than receiving feedback (Althauser & Darnall, 2001; Cho & MacArthur, 2011; Li, Liu, & Steckelberg, 2010; Lundstrom & Baker, 2009). This is potentially due to the learners using their executive processes to evaluate their peer's work.

With these two points in mind, teachers may wish to recognize teaching learners using metacognitive activities has strong support for assisting them in being effective language learners (Borkowski, Carr, & Pressley, 1987, Sternberg, 1984, 1986. Primarily, during the feedback stages for process writing (i.e., where students draft several times before submitting a final copy of a writing), or post-writing test, incorporating metacognitive activities is likely to improve their understanding of the writing process and/or the rationale for their grade. This may also extend to pre-writing activities as Livingston (2003) has indicated. When learners are presented with metacognition skills, since they are executive functions, they are encouraged to develop skills such as making inferences, recognizing assumptions, making

deductions, coming up with interpretations, and evaluating arguments (Magno, 2010). There are several potential ways to approach metacognitive activities as outlined below and in Appendix A, though there are potentially several ways that are not discussed in this article.

For learners who are less proficient, or who are unfamiliar with metacognitive activities, teachers could give them a simple questionnaire that asks them to evaluate their performance and feelings upon completing a writing assignment (See section I Appendix A). This could serve as an easy introduction to metacognitive activities while helping them to assess their skills and more deeply consider what they have written and the choices that they made while writing. Another activity that can be used is giving learners metacognitive questions directing them to consider how they approached the content, the organization of their writing assignment and what readers might deduce or feel from reading their writing (See section B Appendix A). Or, as an alternative, the questions could ask them to examine omissions of information and to reflect on how happy they were with the content of their writing.

For advanced to intermediate learners, teachers may wish to present them with questions that ask them to consider what inferences or assumptions might be gleaned from their writing. They might also be asked to reflect on how strong their argumentation is and evaluate their underlying assumptions for their arguments (See section B

Appendix A). Considering the notorious difficulty of these executive functions, considerable leeway should be given to learners for their answers to these questions, especially when they are first introduced to metacognition. Finally, if the learners use a textbook in class, teacher may give them a list of grammatical, lexical, or structural errors that were commonly made by all the learners in class (See section C Appendix A) during the assignment, and request that they attempt correct any errors that they find in their assignment and that they find any corresponding chapters, units, or sections that address those specific errors and how they may be used to help them correct their errors (See section D Appendix A). These final activities, while not strictly metacognitive, will redirect learners to information that they did not necessarily internalize during instruction and will help them to understand the link between class instruction and writing production.

While this article is not an exhaustive examination of how metacognition might be incorporated into L2 writing assignments and activities, it seems to be clear that metacognition is linked to and can further develop critical thinking skills, especially in terms of how learners evaluate their own writing and the writing of others. Learners' awareness of and practice with metacognitive strategies seem to correlate with better performance than those with less (Winne and Hadwin, 1986, Zhang, 2008; Zhang et al., 2016; Zhang & Zhang, 2019). Furthermore, there are multiple

approaches to introducing metacognition to learners, of which only a few ideas have been presented in this article.

Metacognitive activities for L2 learners appear to be an area with potential for exploration by both teachers and researchers. Further research in how metacognition may impact L2 writing, and for that matter, L2 language learning in general, could examine the degree to which learners benefit from metacognitive activities and instruction, especially regarding affective factors and perhaps even motivation. As previously noted by Livingston, metacognitive activities may be provided to learners pre-and/or post-assignment (as in pre-writing activities, or post-writing activities, and as such, there is the question of which is more beneficial, if at all.

Writing is a difficult process in one's first language. Writing in a second language is even more so. As such, learners should receive all the assistance that they can which will help them to reflect more deeply upon what they are writing, why they are writing, and if that writing echoes what they hope to present to their reader. Metacognitive activities can certainly guide them towards this goal.

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Appendix A

A. Read each of the following 10 statements. Please consider your answer carefully and circle how much you agree or disagree with the following statements the number from 1 to 6.

Strongly **disagree**	Disagree	Slightly disagree	Slightly agree	Agree	Strongly **agree**
1	2	3	4	5	6

1. I was interested in the writing assignment.	1 2 3 4 5 6
2. I finished the writing task in the time allowed.	1 2 3 4 5 6
3. I felt confident about my performance with the writing assignment.	1 2 3 4 5 6
5. I took time to think about and organise my ideas.	1 2 3 4 5 6
4. I checked my grammatical errors for each sentence.	1 2 3 4 5 6
6. I checked my spelling using a dictionary when necessary.	1 2 3 4 5 6
7. I checked my sentence structures to make sure that they are understandable.	1 2 3 4 5 6
8. I checked my paragraph organization (topic sentence, supporting sentences).	1 2 3 4 5 6
9. I feel that I included enough details to support my ideas.	1 2 3 4 5 6
10. I believe that readers understood my ideas/opinions.	1 2 3 4 5 6

B. Read through your writing again. Consider the content. Think about the following three questions and take note of your ideas.

1. What can you do to improve the content of your writing? Write at least 3 ideas about what you can do to improve the content.
2. What do you think your readers think or feel about what you wrote? Write 2 ideas about what you think they might have felt/thought while reading your writing.
3. What information was missing from your writing? Write 2-3 ideas that you could have included in the writing.
4. How might that missing information from #3 improve your writing?

C. Read through your writing. Try to find errors that you made in the writing. Use the following to guide you and put a check beside any errors that you can find. Correct those errors to the best of your ability. Discuss with a partner if you need help.

- a/an/the
- Subject /Verb Agreement
    He <u>are</u>…X we is… X
- Correct verb (past vs present or meaning)
    The city has beautiful today. X
- Singular (child) vs plural (children)
    Ex. Many people have a car. X / many people have car. X
- Spelling
    /r/ vs /l/ (dairy vs daily)

- Is each sentence complete? (It has the necessary subject & predicate)
    Sunshine nice. X-> The sun was shining nicely.
- Not enough variety in expressions /vocabulary or overuse of some expressions:
    In recent years, delicious, <u>etc</u>
- Contractions- don't do this
    I'm, he's, It's

D. Look through your textbook. Which units/pages would be helpful for improving this writing? Write notes on your paper with the units/pages that could help you and why they can help you.

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