

Applying metacognition in EFL writing instruction in China

Yuehai Xiao

Macau University of Science and Technology

ABSTRACT

This paper aims to apply metacognitive theory in EFL writing instruction to provide an alternative solution to the difficulties and problems in EFL writing classes in China. Metacognition is knowledge about cognition and regulation of cognition. This paper advocates both teaching *with* metacognition and teaching *for* metacognition. To teach *with* metacognition, an EFL writing instructor should reflect upon his or her own teaching, and possess both metacognitive strategic knowledge and executive management strategies. When instructors teach *for* metacognition, students can learn about *what* the strategies are, *how* to use the strategies, *when* and *why* to apply the strategies, and as a result, learn to regulate their cognitive activities. Three guidelines are proposed for EFL instructors to make metacognitive teaching an integral part of writing instruction.

Introduction

Many EFL writing instructors might agree that an English writing course is the least rewarding course for teachers and the most frustrating for students. Except for a small number of EFL writing instructors teaching at a few privileged national universities, the majority of EFL writing teachers in China, including those teaching in colleges and in high schools, teach between 30 and 60 students in one writing class. The large class size very often discourages teachers from assigning enough homework for learners to practice and makes it impossible for teachers to notice the errors learners make beyond sentence level, not to mention conducting individual conferences with learners, which is believed to be one of the most effective strategies in EFL writing instruction.

Moreover, insufficient training is the other main factor that upsets EFL writing instructors in China. In colleges, very often novice teachers are assigned to teach writing courses regardless of their academic and professional training. As shown in the discussions above, teaching EFL writing is not preferred by teachers in China because the workload is unreasonably heavy. As a result, most teachers may choose to teach courses other than writing if they are allowed to choose, thus leaving their junior colleagues with little choice but to teach the unpopular writing courses. In high schools, every English teacher gets the same chance to teach a writing class, and every one gets to teach a class of about 50 students. While some of them majored in TESL, many others majored in English literature in college; nevertheless, even the former did not receive adequate training to teach EFL writing. Thus, both the teachers in college and those in high schools

teach EFL writing the way they learn to write in L1 and sometimes in L2: writing down a topic on the blackboard and leaving the students helplessly alone to complete the composition.

As for the learners, they are mainly frustrated by the fact that they are making little progress in EFL writing in spite of their painstaking efforts. Writing in one's native language is a difficult task that requires a great deal of knowledge and cognitive activities. To write in the second language is even more complicated for EFL writers. In addition to the knowledge and strategies required for composing, they need to possess both linguistic knowledge and knowledge about rhetorical conventions of the target language. Being restricted by their limited linguistic competency, EFL writers are often frustrated and overwhelmed by such problems as lacking appropriate English lexical expressions and struggling with mechanics, grammar, sentence structure, paragraph coherence, rhetorical patterns, revision at both higher and lower ends, and English writing conventions. Moreover, because of the big-sized class and the timid and obedient nature of Chinese students, EFL students in China very often cannot obtain adequate attention and guidance from their writing teachers. In a big class, students' individual differences and needs are often ignored, and Chinese students are not used to raising questions in front of a large group of classmates. Outside the classroom, they are usually too shy to go to the teachers to clarify their doubts about the teachers' corrections if their teachers do assign homework for practice and have time to provide written comments. Thus, our students often complain that they seem to make no progress even if they take the writing assignments seriously and do their best to compose. The English writing course is, as a result, regarded as a nightmare by both instructors and students. Teachers prefer to teach courses other than English writing, and students often learn nothing from English writing courses even though the course is part of the curriculum and both teachers and students believe it is as important as the other three language skills.

This paper, therefore, intends to introduce metacognitive instruction in order to raise EFL writing instructors' self-awareness in teaching and to train students to become self-regulated learners. There are two main approaches in writing research and instruction, i.e., the process approach and the product approach (cf. Hyland, 2002; Silva, 1990). The former emphasizes the writing process one undergoes during writing, while the latter focuses more on rhetorical structure and writer's written product. Their differences in focus lead to different instructional designs and objectives when they are practiced in writing classrooms. Nevertheless, as discussed by Devine's (1993) study, integrating the theory of metacognition into writing instruction should help to diminish the boundary between the two traditional approaches, which are believed by Devine to complement each other. This is because ever since the theory of metacognition was first introduced, efforts have been made to apply it to both L1 and L2 reading research and instruction and have shown positive results (Zhang, 2007). But in the Chinese context, Zhang (2003) lamented that research findings in second language learning strategies had hardly been translated into classroom practice. As a result, it is found that teachers and students in China often fail to reflect upon and regulate strategically their teaching and learning. As shown above,

some teachers, for instance, simply teach in the way they were taught without reflecting upon whether their teaching is effective, and Chinese students, who are taught to obey the superior's orders, very often just follow their teachers' rules and fail to think over their own learning behaviors in order to monitor and regulate their cognitive learning. This paper thus intends to promote the integration of metacognition into EFL writing instruction to benefit writing instruction by laying emphasis on both approaches to writing instruction (i.e. process and product approaches), and to train teachers as well as students to teach and learn with metacognition.

Metacognitive theory

Most simply, metacognition is knowing about knowing, and it is most broadly defined as awareness and control of one's cognition (Baker & Brown, 1984; Flavell, 1979, 1987; Gourgey, 2001). As pointed out by Garner (1988), and Paris and Winograd (1990), since cognition includes all human mental activities, it is rather difficult to give the notion an operational definition, and researchers emphasize different aspects of it and adopt different terminology all attempting to better illustrate the concept. Flavell (1978, 1987) discussed metacognition from the perspectives of metacognitive knowledge and metacognitive experience, and emphasized the learner's metacognitive knowledge about the variables of person, task and strategy. Brown (1978, 1987) and Baker and Brown (1984) laid more emphasis on the learner's executive control of cognition, including the regulatory activities of planning, monitoring, testing, revising, and evaluating. Paris, Lipson, and Wixson (1983), and Paris and Winograd (1990) proposed self-appraisal and self-management of cognition as two essential features of metacognition (see also Jacob & Paris, 1987). They described metacognitive knowledge in terms of declarative, procedural, and conditional knowledge; namely, one's cognitive self-appraisal answers questions about "*what* you know, *how* you think, and *when* and *why* to apply knowledge and strategies" (Paris & Winograd, 1990, p. 17). More recently, Schraw (2001) and Schraw and Moshman (1995) defined metacognition as knowledge and regulation of cognition; they divided the former into three kinds of awareness, i.e., declarative, procedural, and conditional knowledge, and focused one's metacognitive regulation on planning, monitoring, and evaluating that help learners control their cognition. I concur with this latest definition and propose three guidelines for EFL writing instruction based on the theories of Paris and Winograd (1990), taking into account all three kinds of metacognitive knowledge and metacognitive regulation.

Metacognition and learning

Metacognitive awareness and self-regulation are of great importance in learning because learners will be able to reflect upon and monitor their cognitive activities, and further develop and employ compensatory and corrective strategies to review and regulate the activities if they are aware of their mental activities. According to Vygotsky (1978), at an early age young children may talk to them-

selves when encountering difficulties for the purpose of self-guidance and self-direction. The monologues help children reflect on their own behavior and plan alternative actions. As children get older, the self-directed monologues will gradually become internalized as silent, inner speech. Later, researchers have found abundant evidence to support Vygotsky's assumptions and concluded further that the children who talk to themselves, or *monitor* themselves in terms of metacognition, when facing a challenging task tend to outperform those who do not think about their own cognitive behavior. This cognitive development observed by Vygotsky and other researchers thus lends strong support to the importance of teaching students how to know about and regulate their cognition.

In the last two decades, researchers have attempted to prove that making students metacognitive learners is beneficial not only in general learning but also in specific subject areas such as reading, writing, mathematics, social studies, and problem solving. They have also attempted to discover the metacognitive knowledge and strategies that students need to be equipped with in order to gain metacognitive awareness and make metacognitive judgments and choices (Baker & Brown, 1984; Brown, 1978, 1987; Garner, 1988; Gourgey, 2001; Hartman, 2001a, 2001b; Paris & Winograd, 1990; Schraw, 2001). In the field of language learning, Wenden (1998, cited in Zhang, 2003) asserted that learners' metacognitive awareness played a part in the effectiveness of learning. Scholars such as Wenden (1991, 2002), Cohen (1998) and Rubin (2001) have been conducting research into pedagogical effects of strategy training in all four skill areas (see Zhang, 2003). In the Chinese context, learners' metacognition of language learning had been documented by such authors as Goh (1997), Goh and Liu (1999) and Zhang (2001, 2002), using Flavell's model (see Zhang, 2003, for a recent review of this research and his recommendations for learner training within a Flavellian metacognitive framework; see Zhang, 2007, for his empirical study of how to implement metacognitive instruction in reading for Chinese EFL learners; see also Wu, 2006, for an empirical study with Chinese EFL writing students that confirmed Flavell's theoretical framework of metacognition).

Ever since the notion of metacognition was introduced in the late 1970s, how to become a metacognitive strategic reader has been one of the main concerns of reading researchers and instructors. Upon encountering a reading task, one needs to firstly clarify the purposes of reading and understand the task demands. Based on the information obtained in the first step, he or she then plans for the task, such as retrieving the relevant background information, setting up the goals of reading, and selecting proper strategies from his or her repertoire of reading strategies. In addition, during the process of reading, he or she must continuously monitor the ongoing activities to determine whether comprehension is occurring. A strategically competent reader continuously engages himself or herself in self-questioning to determine whether comprehension and the goals are achieved; if not, he or she is able to revise the original plan and adopt compensatory actions to achieve comprehension.

Compared with the availability of literature exploring the metacognitive characteristics of successful readers, there is relatively less research that investigates mature writers' metacognitive awareness even though both writing and reading

are regarded as the cognitive enterprise that demands metacognitive knowledge (Flavell, 1979). Within the framework of the process approach, writing researchers have closely investigated the processes one undergoes when he or she writes. They have proposed several writing models for L1 writing such as the well-known Flower and Hayes' cognitive process theory of writing (1981), Scardamalia and Bereiter's knowledge telling and knowledge transforming models (1987), and Grabe and Kaplan's model of writing as communicative language use (1996). In addition, they discuss the differences between mature and immature writers, and further argue that L2 writing is not different from L1 writing and that the differences should exist between more skilled and less skilled writers (Leki, 1992; Raimes, 1985; Scardamalia & Bereiter, 1987; Zamel, 1983). The multi-faceted findings in this line of research are the basis to examine the role metacognition plays when one writes and when one learns to write in L2. Among the few studies that intend to improve the learners' writing performance by enhancing their metacognitive knowledge, Raphael, Kirschner, and Englert's (1986) study was one of the first attempts. Their intervention programs that emphasized social context and/or text structure instruction were proved to have positive impacts on increasing the subjects' metacognitive knowledge, including all the three types of declarative, procedural, and conditional knowledge. Both Kasper's (1997) and Victori's (1999) studies attempted to enhance the subjects' metacognitive knowledge in terms of the three variables of person, task, and strategy. Their findings both concluded that helping the learners to become aware of their writing processes and strategies, i.e., enhancing their metacognitive awareness, when they perform the cognitive task of writing, can improve their L2 writing performance.

After a brief review of literature on the theory of metacognition and its applications to reading and writing instructions, we will now explain how a teacher can enhance learners' metacognitive abilities in his or her teaching and will introduce and explicate some guidelines illustrated with teaching activities that are designed to teach EFL students metacognitive strategic knowledge and self-regulation. These guidelines can be adopted to teach students how to learn reading, science, mathematics, etc. metacognitively as well as in writing.

How to teach metacognitively

Teaching metacognitively involves either teaching *with* metacognition or teaching *for* metacognition. The latter means that teachers design their instruction that will activate and develop their students' metacognition, whereas the former, i.e. teaching *with* metacognition, means that teachers know about and think about their own thinking concerning their teaching. Metacognition enables teachers to gain awareness about and control over how they think and teach, and to monitor, evaluate, and regulate their teaching activities in accordance with specific students, goals, contexts, thus exerting great impacts on their teaching. To teach pre-service and in-service teachers the concept of metacognition and how to teach with metacognition, Hartman (2001b) divides the notion into two types: strategic knowledge and executive management strategies. Strategic knowledge includes knowing "*what* information/strategies/skills you have, *when* and *why* to use them,

and *how* to use them," while executive management strategies include "planning what and how you are going to teach, checking up on or monitoring how the lesson is going as you are teaching, making adjustments as needed, and evaluating how a lesson went after it is finished" (p. 150). In terms of Paris and Winograd's (1990) and Schraw's (2001) taxonomies, strategic knowledge is the teacher's knowledge of cognition, whereas executive management strategies are the teacher's regulation of cognition.

EFL writing instructors in China are thus encouraged to teach *with* metacognition to reinforce their reflections upon their own teaching as well as to improve their strategic knowledge in EFL writing instruction. Teaching EFL writing is much more than assigning topics for students to write about and correcting grammatical errors in students' written products, as believed and practiced by many EFL instructors in China. Instead, when teaching L2 mature writers, EFL writing instructors need to emphasize the different rhetorical structures and writing conventions in English writing, and explain the different expectations of English-speaking readers. Moreover, when teaching L2 novice writers, in addition to teaching knowledge of English writing such as rhetoric patterns and audience expectation, EFL writing instructors should assist learners to understand that writing is a recursive process of meaning discovery (Zamel, 1983). They should also help their learners to develop effective writing strategies and to regulate their writing processes. In addition, EFL writing instructors need to monitor and evaluate their own teaching by reflecting upon the curriculum they design and the teaching strategies and activities they employ to see whether the teaching objectives are achieved.

For those who are interested in teaching both with and for metacognition, they first need to enhance their own teaching metacognitive models by knowing strategic metacognitive knowledge about teaching strategies and by self-regulation. Strategic metacognitive knowledge about a teaching strategy includes knowing about *what* the strategy is, *why* it is a useful teaching strategy, and *how* and *when* it is to be used in a classroom. For example, an EFL writing teacher's strategic metacognitive knowledge will include such a strategy that groups of two to four students review and revise their written products together, i.e., a strategy based upon collaborative learning. Instead of reviewing and revising the written works individually on their own, this strategy makes use of collaborative learning that encourages the students in the same group to help each other improve their writing. In addition to knowing what the strategy is, how it is used and when it should be employed, the teacher must also know that the strategy can effectively assist students in all three stages of writing, i.e., planning, writing, and revising. Furthermore, he or she should be aware that the strategy can also lower students' anxiety and teach them the importance of audience awareness when students learn from each other. In addition to this type of knowledge, we believe a teacher's metacognitive knowledge about teaching should include knowing about his or her beliefs, students' prior knowledge, needs, and metacognition, and other knowledge relevant to his or her teaching.

In addition, a teacher's metacognitive regulation enables him or her to *plan* for the introduction and application of strategies in the curriculum, to *monitor*

the implementation in the classroom, to develop compensatory activities to assist students, and to *evaluate* the effectiveness of their own teaching and students' learning. A reflective teacher teaching with metacognition regularly reviews his or her teaching with reference to his or her beliefs, practices, and knowledge about the particular curriculum and students. Many teachers think about their students, teaching material, activities and objectives *before* they teach, namely, when they plan for their teaching. For instance, novice teachers may spend much time and great effort planning for their teaching by writing a detailed teaching plan, designing teaching aids, and preparing external rewards. Nevertheless, many of these teachers do not know how or forget to consistently monitor and evaluate their teaching *during* and *after* teaching. Because of the school demands, for example, some teachers have to spend almost all the class time delivering lectures without checking whether the ongoing teaching activities have really achieved the goals that were set before class. Others may forget to evaluate themselves by asking such questions as: Do the students understand and follow my lectures? What feedback is provided to the students and do they benefit from it? What effects do the activities have on the students' learning? Do the students understand the homework and its purpose? How can I improve my teaching next time by reorganizing the material or by presenting the material or conducting the class in a different way? Reflecting upon their own teaching before, during and after they teach enables them to consider their students more, and increases and facilitates the communication between teachers and students.

How to teach EFL writing metacognitively

Even though external guidance and support can assist learners in performing literacy skills, self-questioning and self-monitoring are believed to better assist language learners to plan, monitor, and evaluate their reading and writing processes (Hartman, 2001b; Paris & Winograd, 1990). When EFL writing instructors have a big class as the instructors in China do, training students to become independent learners who possess metacognitive strategic knowledge for writing and for regulating their own writing should be helpful to solve some of the problems caused by the large class size and to improve students' writing proficiency. This paper, therefore, encourages EFL writing instructors to teach *for* meta-cognition so as to develop and enhance students' metacognitive models and awareness. With her Chinese students, Wu (2006) conducted an empirical study to propose teaching principles of EFL writing. The study confirmed Flavell's theoretical framework of metacognition which consisted of metacognitive knowledge and metacognitive experiences and yielded important pedagogical implications for researchers.

In this paper, instead of proposing a list of teaching strategies and activities, I would like to suggest three guidelines for EFL writing instructors who plan to teach *for* metacognition in their writing classrooms on the basis of the abundant literature that explicates the approaches promoting readers' metacognitive awareness. There are mainly two reasons for providing only the guidelines. First, one general guideline may sometimes involve more than one activity or strategy.

For instance, when practicing scaffolded instruction in the classroom, EFL writing teachers can adopt teacher modeling, thinking-aloud, self-questioning, and cooperative learning at the same time. Second, a creative teacher can design and develop more and new activities by following the guideline without being restricted by a limited set of activities.

Guideline #1: Explicit instruction

Our metacognitive awareness and our ability of logical thinking, unfortunately, do not grow as we age; it is believed that one needs explicit instruction in order to foster his or her metacognitive knowledge and strategies. Paris and Winograd (1990) emphasized the important role metacognition plays in academic learning, and recommended direct instruction as one effective classroom practice that would help students to develop their metacognitive awareness. They summarized five key features which teachers should focus their explanations on when they attempt to teach students how to learn metacognitively:

1. *What the strategy is.* [Teachers] describe critical features of the strategy or provide a definition or description of the strategy.
2. *Why the strategy should be learned.* [Teachers] explain to their students the purpose and potential benefits of the strategy.
3. *How to use the strategy.* [Teachers] explain each step in the strategy as clearly as possible. When the individual steps in a strategy are hard to explicate, like the step of getting the main idea, [teachers] use analogies, think-alouds, and other instructional aids.
4. *When and where the strategy is to be used.* [Teachers] explain to their students the appropriate circumstances under which strategies should be employed.
5. *How to evaluate the use of the strategy.* Finally, [teachers] regularly explain to their students how to tell whether using the strategy has proven helpful and what to do if it has not. (pp. 32-33)

The first four features concern mainly the three types of metacognitive knowledge, namely, declarative, procedural, and conditional knowledge, and the last feature is about the regulation of one's cognition. The purpose of direct instruction is to provide explicit explanations on the notion and construct of metacognition so that the students who used to be subconsciously aware of or most of the time unaware of their own cognitive activities will become metacognitively aware of their mental actions when they perform cognitive tasks. In EFL writing classrooms, to cultivate students' metacognitive awareness, teachers need to emphasize both metacognitive strategic knowledge and self-regulation (see Wenden, 1991, 2002). Xiao's (2005) study on EFL student writers revealed that EFL novice writers either knew very little about their own writing knowledge and strategies or did not know how to retrieve and apply such knowledge and strategies from their schemata and repertoire in the writing task. Therefore, instead of writing down a topic on the blackboard, and then walking out of the classroom leaving the students to compose on their own, EFL writing teachers should engage themselves more in and devote more class hours to teaching explicitly what their students need to know in order to write in English. For example, Grabe and

Kaplan (1996) and Brookes and Grundy (1998) both considered generating a list of words, phrases, or sentences as a useful teaching activity to help beginning writers to think about something to write. Other examples include Brookes and Grundy's (1998), who used sets of colored rods to teach planning essay structures and grouped students in pairs to raise their awareness of the reader. These and other strategies need to be taught especially to novice writers by means of direct and explicit instruction.

As for self-regulation, it is well documented that less skilled writers tend to start writing immediately after a task is assigned and to turn in the assignment without further review or revision as soon as it gets done. Moreover, novice writers are often frustrated by their lack of appropriate lexical expressions of English and their written products are often found incoherent. Accordingly, it is of great importance for EFL writing teachers to focus on teaching students how to monitor and evaluate their writing processes and written products. Brookes and Grundy (1998) designed a useful activity that can train students to consistently reflect upon their own writing. The activity asks students to write a project on a topic, and also a commentary about their own project writing based on what they learn in class about writing. On each page of the homework they turn in, the left-hand two thirds of the page contain the project writing and the right-hand margin is reserved for the commentary. And their grades are based both on the writing itself and the commentary. This activity is effective in developing students' metacognitive awareness because it explicitly requires them to reconsider what they have written, i.e., to monitor their writing. Furthermore, in addition to reviewing, asking students to comment on their own writing can further help them to evaluate their written products and lead them to adopt and develop corrective actions and compensatory strategies for future improvement.

For less skilled writers, EFL writing teachers can use *procedural facilitators* to guide students through the process of self-regulation. Raphael et al. (1986) designed a *think sheet* including questions like "What do you do first when you write a paper? Second? Third? Fourth?", "What reasons do I have for writing?" and "Who reads my writing?" Likewise, Bereiter and Scardamalia (1987) used *cue cards* as a procedural facilitator to help students become aware of and think about their writing process in order to learn the effective writing strategies. The guidance on the cards includes: "people may not understand what I mean here," "I am getting away from the main point," "I'd better give an example here," and "I'd better leave this part out" (pp. 270-271). These are the questions skilled writers ask themselves throughout the process of writing. They enable the writers to monitor their own writing so that when they have difficulty in finding the right expressions for their intended meanings, or they run out of ideas and cannot continue writing, or they find incoherence in their writing, they can select compensatory or corrective strategies and actions to solve the problems.

Guideline #2: Scaffolding instruction

The *think sheet* and *cue cards* are facilitators that can be adopted by teachers to guide students in order to gradually develop their own regulatory strategies. And the instructional goal is for the students to be able to self-regulate their own

learning eventually without external support, for researchers believe self-questioning is much more effective compared to the regulatory guidance provided by teachers (c.f. Garner, 1988; Gourgey, 2001). This belief thus leads to the second guideline: to teach *for* metacognition, teachers can adopt scaffolded instruction to provide students with guided practice until their metacognitive strategies move toward an automatic state.

Scaffolding is based on Vygotsky's (1978) concept of the *zone of proximal development*. The concept is "the distance between actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers.... The zone of proximal development defines those functions that have not yet matured but are in the process of maturation, functions that will mature tomorrow but are currently in an embryonic state" (Vygotsky, 1978, p. 86). In other words, scaffolding involves providing support to students to bridge the gap between what they can do on their own and what they can do with guidance from more competent others including teachers and peers. The reciprocal teaching model, which is developed to teach students reading comprehension strategies, is based upon this concept of scaffolding (Hartman, 1994; Palincsar & Brown, 1984).

Resenshine and Meister (1992) identified six basic guidelines for the teachers planning to practice scaffolded instruction: (1) present new cognitive strategies, (2) regulate any difficulties during guided practice, (3) provide varying contexts for students to practice, (4) provide feedback, (5) increase student responsibility, and (6) provide independent practice. Accordingly, at the beginning of teaching students how to perform a new task, the teacher needs to firstly model how to do it to provide the students with complete guidance. The students observe the teacher, an expert model, and do little independent thinking at this point. Afterwards, the teacher provides guided practice in different contexts for the students to practice the strategies modeled in the first step. At this stage, the students attempt to perform the task with the support supplied by the teacher. The support can include the teacher providing additional modeling or thinking aloud, offering hints and feedback, and giving partial solutions. As more guided practice is conducted, the teacher gradually transfers the responsibility to the students by decreasing the amount of support and increasing the students' independent thinking. That is, the teacher's role changes from model to facilitator, and the practice changes from teacher's control to students' self-regulation. Finally, when the strategies are internalized, the students are able to perform the task on their own.

Scaffolded instruction is considered effective to develop students' metacognitive knowledge and strategy (Garner, 1988; Hartman, 2001a, 2001b; Paris and Winograd, 1990). Following the five steps proposed by Hartman (2001b, pp.149-172), one of the many approaches that train EFL students to become writers with metacognition is illustrated below.

1. *Cognitive modeling*. The teacher *models* how to write a piece of English composition by *thinking aloud* his or her cognitive activities involved in the task (see also Grabe & Kaplan, 1996; Hartman, 2001a). For example, with

the help of a computer and its connected projector, the teacher can compose aloud in class in front of the students, by typing the words on the computer, which are projected to the big screen, so the whole class can follow the process of composing. While using the computer to write, the teacher verbally reports the ongoing mental activities that generate the written output. The class will observe the teacher's monologues like "What am I going to say next?" "Am I making my intended meaning clear to the readers?" "Should I delete this sentence to make the paragraph coherent?" and "What example can I provide to make the argument more persuasive?" The thinking-aloud reveals both the teacher's self-regulatory activities and the writing strategies that make his or her writing effective.

The teacher's thinking-aloud to externalize the thought process thus serves as an expert model for the students to observe. So the students can see not only what metacognitive strategic knowledge a mature writer employs but also how he or she self-regulates the cognitive activities throughout the entire composing process. Some teachers may find it difficult or embarrassing to compose by thinking aloud in class, so we suggest that an expert writer is invited to the class, or the teacher records his or her thinking-aloud writing process in advance and plays the videotape to the students in class.

2. *Overt, external guidance.* This time the class is guided to write a piece of English composition together, and every student is, in turn, required to think out loud his or her mental activities for both the teacher and the class to observe. With computer and projector, the teacher types the sentences the students generate, which are shown on the big screen. When each student composes, the teacher provides overt and external guidance asking them questions like "What do you mean by this sentence?" "Do you think this sentence is coherent with the theme of the essay?" and "What do you do if you are running out of ideas?" When the students think revision is needed, the teacher can offer clues like "What do you need to do to revise this sentence?" and "Do you need to delete it or add more sentences to make it coherent with the previous text?" At this stage, the students undertake the writing task with overt guidance and support supplied by the teacher.
3. *Overt, self-guidance.* For the writing task conducted at this stage, the students decide by themselves what metacognitive strategic knowledge they adopt to complete the task, and monitor and evaluate their own cognitive performance by self-questioning aloud. The teacher listens actively to the mental activities reported by the students to make sure the students are generating a piece of coherent composition. If the students fail to employ certain strategies, forget to regulate their writing, or have difficulty continuing the present task, the teacher then provides assistance as needed.
4. *Faded, overt self-guidance.* The students repeat the procedures in Step Three, but at this stage they can *whisper* to themselves while they compose aloud and self-question themselves. The teacher listens to the whispering, and determines whether the students are mastering the strategies of composing and self-questioning based on the whispering and the written output. If the

teacher cannot hear the whispering because it is too soft to hear, he or she then questions the student *after* that part of the composition is completed.

5. *Covert self-guidance.* Finally, the students are required to compose again, but this time they need not think out loud the cognitive activities in their minds. They can compose *silently*; they should use the writing and regulatory strategies learned in the previous steps guided by silent monologues. The teacher watches them compose, and asks what self-questions were asked, and why, after each student finishes composing. At this point, the students have become self-directed, and use the internalized strategies to compose and self-regulate their writing activities.

Scaffolded instruction is recommended for metacognitive instruction for two main reasons. First, teacher's modeling and step-by-step guidance and support can help lower students' anxiety in learning metacognitive knowledge and help them learn how to write in English. Second, scaffolded instruction gradually shifts learning responsibility from teacher to learner, and thus facilitates the development of students' metacognitive models and academic learning.

The above steps are based on both scaffolded instruction and reciprocal teaching that were originally designed to enhance *readers'* metacognitive awareness and strategies. When this model as proposed by Hartman (2001b) is to be applied to the teaching of EFL writing, writing instructors need to note that the above five steps may need further elaboration and improvement before scaffolded instruction is practiced in a big-sized EFL writing classroom. For instance, in a writing class of 30 students, how will an instructor get all the other students involved and mentally engaged when one student is writing aloud? Other remaining concerns include whether the regular class hours, usually two hours per week in China, are long enough for a big class to write aloud a piece of composition together, since writing is a recursive process involving repetitive planning, writing and revising.

Guideline #3: A school year's training

Metacognitive instruction needs to be an integral part of the instructional objectives and to be taught over an entire school year. The most effective way for EFL writing teachers to teach their students to become metacognitive learners is probably to allow metacognitive instruction to permeate their curriculum. To teach *with* metacognition, teachers should always reflect upon and monitor their teaching for all the classes. To teach *for* metacognition, it is particularly important for teachers to devote the entire school year, not just a single class or unit, to the instruction that gradually guides the students to internalize the metacognitive knowledge and strategies to an automatic state. Referring to the previous two guidelines, teachers can find that the teaching activities that aim to develop students' metacognitive models usually take more than one week or a unit to be conducted. For example, the scaffolded instruction illustrated above takes at least five weeks to complete, and the project requiring students to write both topic writing and commentary, as designed by Brookes and Grundy (1998) and

described in guideline #1, consists of a sequence of nine activities and needs to be taught in about two months in the teaching context in China. Therefore, integrating this metacognitive instruction with the process approach teaching can teach students metacognitive knowledge as well as the process and strategies of writing.

Furthermore, the teachers who implement metacognitive instruction in their classrooms will need a lot of patience. Garner (1988), Hartman (2001a), Paris and Winograd (1990), and Sitko (1998) all advise that metacognitive instruction takes up a great deal of class time, and that sometimes students' progress and improvement are hard to be observed. Thus, both teacher and students need much patience and persistence to practice the series of teaching activities.

Conclusion

L1 and L2 reading research and instruction have been interwoven with the development of the theory of metacognition (Devine, 1993). But it is not until the 1990s that writing researchers and instructors have begun to promote the integration of metacognition into L1 and L2 writing research and instruction. Reading research has come a long way, and till recently, its development has matured to make it possible to design an inventory to assess students' metacognitive awareness of reading strategies (Mokhtari & Reichard, 2002). Yet our understanding about writers' metacognitive strategic knowledge and self-regulation is still at the embryonic stage, with many fruitful findings in the framework of the process approach still waiting to be applied into the future studies of EFL writers' metacognitive awareness. Despite our limited knowledge about EFL writers' metacognitive awareness of writing strategies, this paper intends to provide the guidelines for EFL writing teachers to teach *with* and *for* metacognition.

I believe that to teach metacognitively is one promising solution to the problems most of the EFL writing instructors in China face: Few teachers are willing to devote themselves to teaching EFL writing, and the size of English writing classes is far too large. On one hand, for those EFL teachers who are required to teach English writing and whose previous academic trainings do not include EFL writing instruction, teaching *with* metacognition undoubtedly can assist them to know, to think, and to reflect about their own teaching. On the other hand, in a big class in which the differences and needs of individual students tend to be ignored, teaching *for* metacognition can shift the responsibility from instructors to students by training the latter to be independent learners. Even though Sitko (1998) and many other researchers have warned teachers that teaching metacognitively takes a good deal of time in class, I believe that the benefits would outweigh the shortcomings. It is my hope that the concepts, strategies and guidelines discussed and illustrated in this paper can supply the teachers who are interested in teaching metacognitively with a sound foundation, upon which more and creative teaching strategies and activities can be developed as the teachers gain more experiences and become more creative to suit the needs of different classes and students.

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