A metacognitive perspective on the growth of self-regulated EFL student writers

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Abstract. Research on metacognitive knowledge of the second language writer, briefly defined as a special type of knowledge that the writer possesses about the self, tasks, and strategies (Kellogg 1994), has shown that the availability and the nature of the knowledge base have a strong linkage with writing behaviours and performance. The present paper reports on an exploratory study that investigated this knowledge base of EFL student writers in terms of person knowledge, task knowledge, and strategic knowledge, within the broader context of the cognitive theory of writing. Data for the study consisted of learning journals of a group of Chinese undergraduate students who participated in a self-regulated EFL writing programme that aimed for developing effective and independent student writers. Findings show that engaging students in self-regulated writing contributed to the acquisition of the metacognitive knowledge of L2 writing in the three dimensions. Students’ reshaping knowledge base was found consistent with the knowledge transforming approach of cognitive writing, and crucial to mature L2 composing processes.

1. Introduction

Writing in a second language is a demanding task that calls upon the availability of linguistic knowledge of L2 and automatic deployment of this knowledge. But learning to write in a second language is much more than just a technical achievement in orthography, vocabulary, and syntax. Teaching and learning L2 composition spans two huge fields—composing and second language acquisition—which, as Raimes (1983) argued more than two decades ago, must merge in the classroom for teachers and students. Kroll (2003:1) has recently echoed the claim by stressing that without a clear recognition that the teaching of L2 writing sits at the junction of composition and language learning, no one teaching writing to L2 learners can responsibly serve his or her students. Research on composing within the cognitive framework suggests that the composing processes of skilled writers involve extensive self-regulation and metacognitive control (Bereiter & Scardamalia 1987, Flower & Hayes 1980, Flower 1990, Kellogg 1996). Flower and Hayes observe that “a great
part of skill in writing is the ability to monitor and direct one’s own composing process” (1980:39). However, this self-regulatory dimension of writing has been little recognized in L2 writing research and pedagogy, which traditionally pay more attention to the development of student writers’ linguistic competence than to the growth of mature composing processes.

2. Self-regulation in writing

The notion of self-regulation has its origin in metacognition theory, which encompasses two domains of study: knowledge about cognition and regulation of cognition (Brown et al. 1983). Knowledge about cognition, i.e. metacognitive knowledge, refers to relatively stable information that human thinkers have about their own cognitive processes and those of others (Flavell 1979). Regulation of cognition involves self-regulatory mechanisms used to regulate and oversee learning, such as planning, monitoring, revising, and evaluating, which are central to growth and change (Brown et al. 1983). These mechanisms are explicitly represented in Flower & Hayes’s (1980) cognitive composing model. It has been noted that the composing behaviour of skilled writers can be distinguished from that of novice writers in terms of the greater frequency with which self-regulatory mechanisms such as planning and monitoring are used, compared to non-regulatory mechanisms such as generating and transcribing. Drawing upon the study of task representation among a group of student writers, Flower (1990) further argues that metacognitive awareness of the writing process is not a well-established part of the students’ repertoire, and that “although they appeared capable of and in possession of such awareness in isolated parts of their writing, they were not, it appears, engaging in active metacognition about writing” (p.71).

Bereiter & Scardamalia’s (1987) models of knowledge-telling and knowledge-transforming provide further insight into the difference in composing processes between novice writers and skilled writers. Novice writers convert a writing task into a task of telling what they know by just writing down any information retrieved from memory, with each new sentence stimulating the generation of the next one. The role of planning, revising, and other self-regulation processes is kept to a minimal level. This retrieve-and-write process typically functions like an automated programme, operating largely without metacognitive control (McCutchen 1988). In contrast, knowledge transforming is a model of intentional writing, involving the setting of goals to be achieved through the
composing process and the purposeful pursuit of these goals. Skilled writers approach a writing task as the reorganization of their knowledge through deliberate and executive control over the process of composition.

According to Bereiter & Scardamalia (1987), therefore, an important goal in the writing instruction is to help students incorporate additional self-regulatory mechanisms into the executive procedure of knowledge-telling, for instance, planning, revising or evaluation. They propose the notion of “procedural facilitation” as an instructional method of promoting self-regulatory mechanisms in writing. The main steps of procedural facilitation are as follows: identify a self-regulatory function, such as revision or planning, which goes on in expert performance but only in an attenuated form in student performance; describe the self-regulatory function as explicitly as possible; design a way of routinizing the onset and offset of the process; and design external supports for reducing burden of mental operations. Closely connected with the process writing, procedural facilitation is assumed to be distinct from “substantive facilitation”, which is the more common type of facilitation used in the teaching of writing. In substantive facilitation the overall executive burden is reduced by having the teacher directly assume responsibility for evaluating, diagnosing, and suggesting revision, leaving “generate alternative” as the only part of the process for the student to perform.

In the field of L2 writing instruction, a number of strategies and techniques with functions similar to those of procedure facilitation have been proposed and practiced in the guise of developing student autonomy in writing. One such strategy is to enhance students’ awareness of self-monitoring by giving them the control over the initiation of feedback (Charles 1990, Cresswell 2000). This involves students in producing marginal annotations about the problems in their evolving compositions, to which the teacher responds. An alternative strategy is students’ reformulation of their own texts, so as to reduce the teacher’s role of taking all the responsibility for evaluating text, and to enable students to take initiatives in correcting and improving their own texts (Allwright 1988). Ferris (1995) advocates a self-editing strategy that specifically aimed to have ESL students become skilful independent editors who could function beyond the ESL writing class. The common assumption underlying the application of these strategies is that in the L2 writing class, the teacher often takes responsibility for detailed responses to students’ writing, and in anticipation of that feedback, many students simply fail to recognize that they themselves need to be engaged in the process towards the cognitive goals associated with writing. Thus, the development of self-regulation or autonomy in writing largely depends on diminishing the teacher’s
“substantive facilitation” to students’ written products. Although these studies have shed light on enhancing students’ metacognitive awareness of the performance of writing tasks, two issues remain to be addressed in fostering self-regulation in L2 writing. Firstly, fostering self-regulation in writing is a matter of systematically integrating self-regulatory mechanisms into a course framework, within which students are enabled to apply goal-setting, planning, self-monitoring, self-evaluation, and revising to their existing executive procedure of task performance. Secondly, gaining insight into the information that students have about their cognitive and affective aspects of learning to write, i.e. their metacognitive knowledge related to such an instructional approach, is crucial to the understanding of whether and how they adopt self-regulation in writing.

With these two issues in mind, the present study examines an empirically based instructional approach to developing self-regulation in writing in English as a foreign language. We specifically look into how students’ metacognitive knowledge of EFL writing has been constructed and reconstructed in a learning context where self-regulation in writing is promoted. This is because metacognitive knowledge is considered as a prerequisite to the deployment of self-regulatory mechanisms in performing a writing task (Wenden 2001, Victori 1999). Drawing upon cognitive models of writing and the metacognition theory, we conceptualize self-regulated writers as those who are willing and able to regulate their own cognition and affect pertinent to performing EFL writing tasks.

3. The study

3.1 Institutional context

The pivotal aim of the writing programme examined in this study was to help students to become skilled and independent EFL writers through process-oriented self-regulated writing instruction. Specifically, the programme was designed in such a way that students were able to increase knowledge about characteristics of EFL writing; develop autonomous use of writing strategies; and form positive attitudes about writing and themselves as writers. These goals were manifested in the following course components: scaffolding the use of self-regulatory writing strategies; applying a process approach to instruction with extensive adoption of peer-evaluation and self-assessment; constructing writing portfolios; and keeping learning journals.
The programme was implemented by the researcher from September 2003 to January 2004, during the first semester of a new academic year at a Chinese university. The programme lasted for seventeen weeks, with two-hour class instruction time each week. Students were required to do five self-regulated writing tasks, each of which was completed over the time of three weeks, following the processes of identifying topics, planning/drafting, peer-feedback, self-revising, teacher feedback, and final drafts. Writing activities outside class mostly involved self-discovery of topics for each task, gathering relevant information, preparing a first draft for peer-feedback, and producing a second draft based on peer-feedback, and a final draft according to the teacher’s feedback. The final drafts of each task were compiled and published in the form of class anthologies, which were circulated and read among students.

A distinctive feature of the writing course was the combination of weekly off-class freewriting practice and process-oriented formal essay tasks. The requirement for freewriting practice was that students needed to complete at least one A4 sheet every week, on whatever topic they wanted to write about, and in their own spare time. They were also asked to keep weekly learning journals to record the process of doing writing tasks and reflections on their learning experiences. All the five formal essay tasks, freewritings and learning journals made up writing portfolios that were compiled in the last week, which were assessed by the teacher and students themselves in terms of learning process and learning achievement.

Informed and integrated strategic instruction was adopted in a way that involved systematic and explicit teaching of a number of self-regulatory writing strategies. These included planning strategies such as identifying purpose and audience, narrowing down a writing subject, timed-freewriting, and loopwriting, and evaluating and revising strategies, such as reading aloud own compositions, self-annotation, selective self-editing, reverse editing, and peer-feedback. These strategies were introduced, and consistently practiced in the class, aiming for the gradual and scaffolded application to their task performance. The primary role the teacher played was instructing and modelling the writing strategies, and facilitating a supportive writing environment, in which students could apply the strategies and mobilize resources for carrying out their writing tasks.

3.2 Subjects

Course participants were fifty-one English major students from two intact classes at a Chinese university. The majority of students were female,
which is a feature of English-major classes in Chinese universities. All students had at least six years of school English learning experience before entering the university, and were at the second year of their four-year university degree when they participated in the programme. Although there was no official English test administered to them at this stage, their average English proficiency level was estimated by the researcher to be around IELTS 4.5, given the fact that these students had been selected as English majors according to their good record in English learning at high school, and offered intensive courses to develop their language skills during the first tertiary year. However, according to the National Curriculum for English Majors, they had not yet received any formal instruction in English writing before the programme.

3.3 Data collection and analysis

Data for the study consisted of students’ weekly learning journals that they were asked to keep during their participation in the writing programme. The study of learning journals or diaries as an introspective research tool has been widely adopted in the area of second language research (e.g. Bailey 1990, Nunan 1992, Allison 1998, Carson & Longhini 2002), as they can provide insights into the learners’ attitudes, strategies, and perceptions of language learning, and thus help to understand language learning variables from the learner’s point of view. In the present study, learning journals were employed as a means of exploring the development of students’ metacognitive knowledge of L2 writing throughout the writing programme. Students were given an A4 sheet after each week’s lesson, and were asked to focus on three aspects of their writing: progress they made every week; problems they encountered and their strategies to solve them; and reflections on teaching and learning. Students made their own option on the language (Chinese or English) they would like to use.

All students submitted their learning journals at the end of the writing course. However, the amount of each individual journal ranged from 4 to 16 entries. Of the 51 students, about two-thirds were found to have kept more than 10 entries throughout the course. In addition, the length of individual entries varied. Some sketchy entries contained just a few lines, whereas more extended entries covered a full A4 sheet. Only a small portion of the entries were written in English, while the majority in Chinese. This is not surprising as students’ language proficiency in their mother tongue enabled them to articulate their feelings and thoughts more thoroughly. A further inspection of the journal contents revealed that some students’ entries were not restricted to their learning of writing, but rather
relevant to a broader spectrum of their college life. These differences in learning journals called for the necessity of preliminary data reduction before a content analysis procedure could be applied. The body of journal data was then initially reduced on the basis of the following two criteria: firstly, individual student’s entries had to be consistent throughout the course so that the information gathered at different stages of his/her journal could reflect an evolving trend of writing knowledge; secondly, entries had to address the required issues in order to make the comparison across students possible, and to build up a learning process file with relevant emerging themes. Short and incomplete entries that failed to yield adequate and valid information of the issues needed to be excluded. According to these two criteria, journals of 24 students, yielding a total of 328 entries, were finally selected for analysis in the study.

A content analysis procedure was then applied to the data with reference to the threefold taxonomy of metacognitive knowledge: person knowledge, task knowledge, and strategic knowledge. The journals of 24 students were firstly read and reread by the researcher, noting and coding themes relevant to metacognitive knowledge of EFL writing on each single entry. Then the recurring themes were identified and their frequency of occurrence was quantified chronologically in terms of weeks. Finally, the observed themes were classified following the definition of person knowledge, task knowledge and strategic knowledge (Flavell 1979, 1987, Wenden 2001), which were further grouped into subcategories under each of the three categories. This analytic procedure was principally an interaction of the inductive and deductive approaches to the data.

4. Results and discussion

The results below will be presented and discussed in terms of the three broad categories of students’ metacognitive knowledge of EFL writing. Special attention is paid to how the knowledge was originally acquired and how it was reshaped in the process of participating in the self-regulated writing programme. The extracts have been selected (some translated from Chinese) as examples of observed phenomena and the changing trend.

4.1 Person knowledge

Person knowledge refers to the kind of acquired knowledge and beliefs that concern what human beings are like as cognitive, affective and motivational organisms (Flavell 1987). In this study, person knowledge has
been identified in terms of perceptions of writing environment, writing self-efficacy, and motivation. These factors reflected the development of students’ self-concept as L2 writers. The results are shown in Table 1.

**Table 1**

**Person knowledge**

<table>
<thead>
<tr>
<th></th>
<th>Frequency of occurrence in entries of each week</th>
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<tbody>
<tr>
<td><strong>Writing environment</strong></td>
<td></td>
</tr>
<tr>
<td>Class norms</td>
<td>7 3 6 4 2 1 4 2 5 6 2 7 3 4 5 5</td>
</tr>
<tr>
<td>Teacher’s feedback</td>
<td>- 1 4 5 2 7 3 2 6 4 2 1 3 1 3 4</td>
</tr>
<tr>
<td>Peer-feedback</td>
<td>- 2 9 6 5 6 8 4 2 6 5 5 3 2 4 3</td>
</tr>
<tr>
<td><strong>Self-efficacy</strong></td>
<td></td>
</tr>
<tr>
<td>Sense of making progress</td>
<td>- - 2 3 1 4 5 3 5 6 2 6 3 4 5 8</td>
</tr>
<tr>
<td>Confidence/satisfaction</td>
<td>1 2 2 3 1 3 2 2 5 4 3 3 5 3 6</td>
</tr>
<tr>
<td>Concern for language use</td>
<td>6 3 4 2 2 1 2 3 4 2 3 3 1 2 1 2</td>
</tr>
<tr>
<td>Anxiety in expressing ideas</td>
<td>2 3 2 1 2 - 3 1 3 2 2 - 1 2 1</td>
</tr>
<tr>
<td><strong>Motivation</strong></td>
<td></td>
</tr>
<tr>
<td>Willingness to work</td>
<td>2 6 3 5 1 2 3 4 6 3 2 3 4 2 5 4</td>
</tr>
<tr>
<td>Involvement in tasks</td>
<td>1 3 3 5 3 2 5 7 4 5 4 6 3 4 3 4</td>
</tr>
<tr>
<td>Obligatory duty</td>
<td>6 4 2 2 3 2 1 2 1 - 2 - 3 1 2 2</td>
</tr>
</tbody>
</table>

Students had preconceived beliefs and knowledge about English writing and about the writing environment when they came to the class. A major aspect of the knowledge was concerned with their perceptions of English writing class norms, that is, how English writing classes would be organized and conducted by the teacher, and what they would be required to do in it. It was found that students’ initial preconceptions of English writing classes were rather negative and detached. Students typically saw writing as “a one-shot deal, put down on paper and marked right or wrong” (Raimes 1983:263), and the writing class as a highly controlling context, in which the teacher played a dominant and directive role in deciding writing topics, regulating performance procedures, and providing evaluative feedback, whilst they had little choice and control over the task performance. Taking a writing class was perceived as carrying out a series of mundane tasks imposed by the teacher. The extract below, from a student’s entry of the first week, is representative of such preconceptions.

“I know that we will have writing classes this term, and I have thought about it by myself before. I assumed that it would be very boring and every time we will do the same thing – writing. In class, we should write a composition according to the topic the teacher gives us, we must finish it in the two period, then we should hand it
in to the teacher. After he has examined, he would send it out to us. We had a look at it quickly and put it aside and started writing another composition on another topic given to us. In fact I don’t want to do these things, they are nonsense, I think.” (S20, Wk1)

With such prototypical perceptions of L2 writing classes, students seemed surprised when the course rationale and requirements of this writing programme were presented and explained in the introductory lesson. They did not expect the way the writing course was going to be implemented, remarking that the idea of self-regulated writing would be a new experience for them. Moreover, the idea of self-regulation and self-responsibility appeared to be in contrast not only to their representation of writing classes, but to that of other language skill classes.

“This is the first time I have writing class after being a college student. My teacher said he would give the right to us for self-controlling, that is, we should be responsible of our own writing. It's absolutely new. He asked us to determine attitude toward writing, and identify personal goals for the course. I called it very special course, for the requirements are definitely different from other classes.” (S17, Wk1)

Compared with the initial preconceptions, there seemed to be a reformation of students’ beliefs of how a L2 writing class could be effectively implemented by the end of the writing programme. Students tended to reflect positively upon their learning experiences in this writing programme and the way that the class was conducted. They seemed to have particularly enjoyed the sense of “freedom” and control over the use of the class time. A common view was that “the class time passed quickly” when it was left to them to do independent and peer work on their own. Furthermore, as journals at the late stage indicated, they had a sense of achievement through participation in the class activities and self-control over the class time. On the contrary, they felt a bit impatient in other language lessons for “having to listen to the teacher all the time”.

“In English lessons, we are used to sitting there and listening to the teacher from the beginning to the end. This writing class is different. We don’t have to gaze at the blackboard and listen to the teacher all the time. We use most of the class time to think about our drafts and discuss with peers. This is good to my writing, I think.” (S3, Wk14)
Two other themes relevant to the class environment emerged recurrent in students’ journals. The first was students’ view of the teacher’s role. It was said that the teacher’s role of facilitating the writing environment and guiding the writing process, rather than delivering a highly structured lesson, was essential to their involvement in writing activities in class and self-regulated writing out of class. In particular, students appreciated the shift of the teacher’s role from a judgemental examiner of what they wrote to a source of formative feedback and encouragement.

“I got my first composition back this week. Instead of giving a grade, the teacher pointed out problems and merits in the margin, and wrote some encouraging words in the end. This was different from what I had previously received for my writing. I felt very happy because it let me know that someone appreciated my effort and progress in writing.” (S11, Wk4)

Enhancing students’ control over and responsibility for writing, therefore, did not diminish the teacher’s function, but highlighted the adoption of a new role that would be congruent with such change. Another salient theme was associated with peer-feedback, which had numerous journal recordings throughout the writing course. Peer-feedback seemed to give rise to incentive for learning when one compared his/her own writing ability with that of others. Furthermore, peer-feedback was also believed to be of great importance to achieving a high level of text quality.

“Looking back of what I’ve learned this week, a strong feeling occurred to me. The more I devoted, the better result it would be. But I must face the reality when I realized the distance of my composition with some other classmates. The girl whose article was exchanged with mine is an excellent writer. I felt a little scared. Anyhow, I still feel proud of my effort.” (S14, Wk3)

“Before handing in to the teacher, my first draft usually has been passed among my classmates. The feedback from my classmates always helps me a lot to improve my composition. A few times, I even changed my first draft entirely.” (S13, Wk11)

The examination of students’ knowledge of writing environment reveals that they came to the classroom situation with rather unfavourable attitudes and past experiences. Writing was considered as an externally
oriented and regulated language learning task. Holec (1987:153) observes that “learners’ entering assumptions are a direct reflection upon the teaching/learning system in which they have had previous language learning experience.” A new representation of L2 writing classes and their own role in the writing process tended to have formed through constant task experiences by the end of the course. Such change might be crucial to the L2 writing instruction, because as students’ initial conceptions indicated, when they believed that they were removed from a sense of control over the writing task, they were likely to avoid it when they could.

The increase in students’ person knowledge was also reflected in their self-efficacy in writing, that is, the degree to which the student thought he or she had the capacity to cope with the writing challenge. Students in the writing course did not receive external judgemental evaluation for each of their tasks, but needed to assume their own responsibility for appraising their writing performance. Despite the difficulty of discerning subtle writing progress, reflective thinking over composition quality and writing skills was a common concern of their journal writing. For example, the sense of writing progress was sometimes associated with the ability to achieve clear organization in texts.

“I think I have mastered organising the whole composition now. Even if my ideas in essays were not very good, but the organization was clear. That’s the most obvious progress.” (S17, Wk14)

The sense of progress could also derive from the effectiveness of self-revision on their drafts. As recorded in students’ journals, writing gains were consistently related to their revision activities.

“I am not satisfied with the first draft of this essay. But after receiving feedback and revising for several times, I really felt a sense of achievement in the end.” (S24, Wk9)

However, the journals also revealed that students’ writing self-efficacy grew slowly and unsteadily, especially with regard to language use and expression of ideas. Writing anxiety was noted when their immediate writing achievements were overshadowed by their distance to the overall writing goals. For example, some students tended to compare their own written products with essays in textbooks, or articles they read in newspapers or magazines, both of which were usually written by professional English writers. The distinct gap between their own compositions and native speakers’ essays in the aspect of language use
often impaired their writing self-efficacy. On the other hand, some students found that certain grammatical problems persisted in their texts, which led to their negative judgement of their learning of writing, despite the improvement they made in other aspects. The discrepancy between an ideal self and an actual self in these respects seemed to be detrimental to students’ writing self-efficacy.

“Freewriting is done as well. I began to like freewriting, because I needn’t pay much attention to the grammar. But grammar is my weakness. I should pay attention to it everywhere. That’s a pity. Sometimes I found myself thinking about that when I will good at English, that made me upset.” (S12, Wk6)

This extract is illustrative of the clash between students’ self-efficacy and the overall writing goals they pursued. The student first reflected upon the attainment of the weekly freewriting goal, and her effective performance gave rise to positive feeling and writing interest. However, she also immediately evaluated her performance against the general goal of writing good English compositions with no grammar mistakes, and consequently, her sense of writing efficacy faded and writing anxiety arose.

The third type of person knowledge that students developed in their participation in the writing course was concerned with their motivational aspect of learning English composition. This was first manifested in their gradual confidence in themselves as EFL writers and their willingness to publicise their written products. As mentioned in their journals, before taking the writing course, the prospect of sharing their own writing with other people was rather daunting. Except for compositions with which they felt highly satisfied themselves, students generally said that they were unwilling to show what they wrote to people other than their teacher. As one student said: “I think we should be brave to take our compositions to others.”(S5, Wk4) As a result of constant class experiences in peer feedback, however, students began to overcome their initial worry about presenting their compositions. Some students even regretted missing learning opportunities in the past due to their reluctance to show their writing.

“I was afraid of showing my composition to other people in the past, because I worried about being laughed at if my composition was bad. I realize now it was not good to my writing.” (S21, Wk15)
A positive attitude toward writing was also reflected in students’ awareness of the task difficulty, and their readiness to invest effort and time. As one of the course goals was to develop skills of writing English expository essays, the tasks that students were asked to do were cognitively more difficult in terms of language use, content, and rhetoric, than English writing they had done in the past, such as a 100-word composition in high school. It seemed to be a significant motivational sign that students were ready to be involved in the tasks regardless of the increasing task complexity. The following extract is a student’s reflection upon receiving feedback, which would engender much revision work:

“I will have a lot to revise in my first draft. I almost need to rewrite it. But it is quite strange that although there is a lot of work ahead, I don’t feel bored as I used to. This should be an advance in my learning of writing.” (S13, Wk7).

The recurrent mention of their willingness to task engagement, however, could only indicate an overall picture of the disposition to writing among students. Unexpectedly, the journals also registered some students’ mental struggle with their perfunctory attitude towards the tasks. The following extract may be illustrative in this regard.

“After the second revision, the essay’s purpose became clear, but the ending was still unsatisfactory. It didn’t change much even after the third revision. The reason is simple. I tended to be lazy when doing this task, and regard it as a duty. Although I knew I could write a bit more on certain points, I was reluctant to expand them. The most important thing now is my writing attitude. If I enjoy doing it, the quality may be improved.”(S21, Wk4)

In brief, students’ journals reveal their growth of person knowledge related to their learning of English composition in the writing course. Their changing perceptions of the writing environment, their fluctuating but gradually enhanced self-efficacy, and their willingness to be involved in tasks, suggest that encouraging students to participate in self-regulation of English writing might contribute to the development of their positive self-concepts as EFL student writers.
4.2 Task knowledge

Task knowledge refers to students’ knowledge about how the task nature affects and constrains the way they deal with it, about the pedagogical purposes related to its performance, and about the assessment of demands that it places on them (Flavell 1987; Wenden 2001). These three components of task knowledge and major themes under each of them have been identified and classified in students’ journals. The results are summarized in Table 2.

Table 2

<table>
<thead>
<tr>
<th>Task knowledge</th>
<th>Frequency of occurrence in entries of each week</th>
</tr>
</thead>
<tbody>
<tr>
<td>Task constraints</td>
<td></td>
</tr>
<tr>
<td>Vocabulary</td>
<td>9 7 6 4 6 4 8 4 2 4 6 4 3 5 4 4</td>
</tr>
<tr>
<td>Grammar</td>
<td>4 5 6 6 2 4 7 5 2 3 3 4 2 1 2 2</td>
</tr>
<tr>
<td>Concern for structure</td>
<td>3 2 4 3 1 3 2 4 2 2 - 1 2 3 2 1</td>
</tr>
<tr>
<td>Topic knowledge</td>
<td>6 7 4 2 2 3 3 6 5 4 2 4 3 5 2 2</td>
</tr>
<tr>
<td>Task purposes</td>
<td></td>
</tr>
<tr>
<td>Establishing a thesis</td>
<td>1 2 2 4 2 3 2 5 3 6 6 3 4 2 4 3</td>
</tr>
<tr>
<td>Logical organization</td>
<td>- 1 2 3 3 4 6 6 8 9 8 7 4 5 4 3</td>
</tr>
<tr>
<td>Purpose and audience</td>
<td>- 1 2 2 - 4 2 4 3 4 2 - 4 5 3 1</td>
</tr>
<tr>
<td>Supporting details</td>
<td>1 3 2 2 2 3 4 1 4 5 2 7 6 2 5 2</td>
</tr>
<tr>
<td>Syntactic variety</td>
<td>3 4 3 1 2 2 3 - 2 4 2 1 - 1 3 -</td>
</tr>
<tr>
<td>Use of figurative English</td>
<td>7 5 4 2 3 - 2 4 2 3 2 - 2 1 1 -</td>
</tr>
<tr>
<td>Task demands</td>
<td></td>
</tr>
<tr>
<td>Cross-language influence</td>
<td>- 1 2 3 6 7 9 6 4 6 2 5 2 3 4 4</td>
</tr>
<tr>
<td>Rigid/dull essay structure</td>
<td>- - 2 2 - 4 6 2 4 1 3 2 1 2 - 2</td>
</tr>
<tr>
<td>Inspiration and creativity</td>
<td>2 4 2 5 3 2 2 1 - 1 2 1 - 1 -</td>
</tr>
<tr>
<td>Telling and showing</td>
<td>- - 1 2 5 7 4 2 4 2 2 3 3 4 3 2</td>
</tr>
</tbody>
</table>

Students described various kinds of factors that constrained them from carrying out English writing tasks smoothly and effectively. They were commonly connected with the use of lexical and grammatical knowledge of the English language, topic knowledge about a particular task, and textual knowledge of how to organize ideas clearly, among which limited vocabulary size was considered as the prime constraining factor that impeded them from performing a writing task. This was the case particularly at the beginning stage of the writing course. The most numerous journal recordings at this time were concerned with their struggle with the vocabulary use.
“I wrote a short composition myself this week. To me, the biggest problem now is lack of vocabulary. I just can’t keep writing, but have to stop to look up words in a Chinese-English dictionary. And it always happens that the words I used couldn’t express my actual meaning.” (S2, Wk1)

Despite a decline of the number of related occurrence, vocabulary remained a constant hurdle that baffled students during the writing course. As one student remarked at the late stage:

“I always use the most simple and common words in my compositions. These words usually can’t express my meaning properly. I should spend more time increasing my vocabulary, and learn to express ideas with different words.” (S11, Wk11)

In addition to vocabulary, another linguistic constraint was associated with the correct use of grammatical forms, as sufficient grammatical knowledge was generally considered as the basis of a good piece of English writing. Although the grammar issue seemed not as outstanding a problem as vocabulary, undue attention paid to grammatical accuracy in their writing appeared to have trapped some students at the sentential level.

“So far most of the mistakes in my compositions are about grammar, especially tense. Although I paid much attention to it, and read my compositions several times, others could still pick out many grammar problems in them. It is really a headache.” (S4, Wk12)

As indicated by the frequency of occurrence, concern for topic knowledge was regarded as the writing constraint second to the language issues. One of the main features of the writing course was that the teacher did not prescribe topics for each essay task, rather students needed to decide on what to write on their own. Therefore, the initial step for task performance was trying out various topics for each essay they wrote. It turned out that those seemingly familiar topics might be difficult to develop into a full text due to a lack of adequate background knowledge.

“Sometimes you choose a topic that you think is easy to write. But in fact, it is not. You may find it very difficult to write when you begin to. This is a problem. So I think searching for useful
Finally, concern for the text structure was also experienced as the constraint of their writing process, especially when an explicit essay structure was required.

A most revealing aspect of task knowledge was students’ understanding of various task purposes that were pertinent to writing an English essay. It seemed that throughout participation in the writing programme, students were acquiring the knowledge of what featured a formal English essay and how it differed from their previous writing. The number of mention in journal entries indicated that after the initial stage, characteristics of English essays, such as establishing a thesis, logical organization, audience and purpose, and supporting details, were increasingly becoming the major issues when they dealt with an essay task. The following extract is an example of reflections on essay audience:

“There are two kinds of writing. One is for your own need, just for enjoying yourself. You just need to write down everything in your mind. The other kind of writing has requirements. It is like producing something. It is not as simple as writing for your own. You need to consider your audience, their views and expectations. You need to keep them in mind throughout your writing.” (S22, Wk6)

Such awareness of audience and purpose, however, appeared to be lacking in their previous writing, as it was said that what they had written before were typically teacher-oriented. They took it for granted that the teacher, whose responsibility was providing judgemental information about how well they wrote, was the only reader of their compositions. Or a vague sense of audience was assuming any person who happened to read what they wrote.

“I never thought about the audience of my compositions before. I always thought that I could write whatever I wanted to write, whoever read it.” (S23, Wk2)

In contrast to their initial perceptions of writing, the awareness of definite writing audience, especially in the aspect of peer readership, seemed to have become an essential portion of their task knowledge; one student reflected in her mid-term journal:
“For me, the purpose of learning English writing now is to communicate my ideas with my classmates and the teacher in another language. So it will be a pity if they can’t understand what I write.” (S8, Wk10)

Concern for logical organization was also a recurring theme of task knowledge in students’ journal recording. Process-oriented formal essay tasks in combination with weekly off-class freewriting tended to help raise consciousness of the distinctive features of the two writing approaches, and contributed to the acquisition of the knowledge of writing a formal essay. In marked contrast to freewriting, the emphasis of task procedures of essay writing was placed not only on what to write, but also on how to write. As one student made an analogy between writing an English essay and solving a mathematical problem:

“We are writing with the same essay structure now. To me, this is more like solving a logical math problem. You need to carry it out step by step in order to organize it with clear logic.” (S11, Wk12)

The knowledge about task purposes was also represented in the frequent mention of establishing a thesis statement and finding supporting details. Although composing an English essay with a clear thesis and adequate details was always a difficult task, the acquisition of the knowledge implied that students began to perceive writing an English essay as a self-regulatory process of transforming what they knew, rather than simply telling all they knew.

“It was really a tough and complicated task to write a satisfying and good composition, especially when I had no main idea to focus on. ...I thought it was definitely difficult to look for examples and details to support my ideas.” (S1, Wk13)

In addition to the above composing aspects of an English essay, task purposes were also relevant to the linguistic issues. Focus on the syntactic variety, and the use of figurative English, particularly the use of idioms and canonical expressions, indicated students’ perception that English writing was a matter of language learning and language use.

Students’ task knowledge of L2 writing also included information about the demands for effective performance of English essay writing. A salient aspect of task demands was concerned with the cross-language difference between L1 and L2 writing. Students generally asserted that the
rhetoric structure of English essays was distinct from their inductive way of writing a Chinese composition.

“This week I revised my second essay. It was about my personal experience. The first part was a detailed description of the incident, and the second part was a short conclusion, which was about what I had learned from the incident. I wrote the composition as I wrote in Chinese. But its structure turned out to be different from the English essay structure we were learning in the class. It didn’t have a clear topic sentence and supporting details in each paragraph. I didn’t tell my writing purpose until the end. I had to revise it so that it would look like an English essay.” (S10, Wk7)

Despite the well-documented research on contrastive rhetoric between Chinese and English (e.g. Kaplan 1966, Connor 1996), little attention so far has been paid to Chinese student writers’ perceptions of the rhetoric difference, and how they overcome the influence of their Chinese writing on their learning of English composition. As recorded in their journals, students thought that the English essay organization of introduction, body, and conclusion, and the paragraph structure of topic sentence and supporting sentences appeared logical, requiring rigid thought pattern. Meanwhile, such essay rhetoric was perceived as mechanical, unvaried, and lacking novelty, and as a result of its repeated application to different essay tasks, the sense of boredom grew. They thought that conforming to the essay structure precluded their natural flow of ideas, and sacrificed writing fluency. Moreover, adherence to the principle of explicitness in expressing ideas was believed to make their essays less interesting to read and leave the reader no space for imagination. In contrast, students tended to appreciate both implicit language use and inductive organization that featured their Chinese writing, assuming the reader’s responsibility for ascertaining the main idea of what they wrote. The adoption of the English essay rhetoric, therefore, was not a volitional act, rather it involved a certain degree of reluctance, and even resistance. The extract below is illustrative of such perception:

“I prefer the Chinese way of writing. It is more natural and more interesting to read, and the writer doesn’t impose his idea on you at the very beginning.” (S15, Wk6)

However, in spite of the uncertainty of applying the English essay rhetoric to their writing, students in the study were well aware of the
importance of diminishing the influence of the Chinese writing habits when learning to write an English essay. As they said in their journals, it was not very difficult to imitate the formal features of English essay rhetoric, like the three-paragraph structure. But it was a real difficulty to organize their ideas logically and clearly within the rigid rhetoric structure. There might be lacking a thesis statement in the beginning, or topic sentences in body paragraphs, even though they knew the importance of inclusion of both in their essays. They commonly attributed these difficulties to their writing habits developed from the Chinese composition.

“I know that an English essay should have clear structure and logic of idea presentation. But when I was writing, I was always influenced by my Chinese way of writing, with loose form and implicit idea. I was tempted to pour out everything I wanted to say and then added a short comment.” (S23, Wk9)

In addition to the cross-language influence, task demands was also connected with the shift from the knowledge-telling approach to the knowledge-transforming approach in tackling essay tasks, a process that did not take place without difficulty, rather caused confusion and hesitation. As the knowledge-transforming approach might not always achieve satisfactory text outcomes, it was tempting to take the knowledge-telling approach to essay tasks due to the sense of efficiency and writing fluency this gave. However, as indicated in some student’s journals, they seemed aware of the cognitive complexities of simultaneously tackling content and rhetorical problems in essay writing, and tended to break down the task complexities into the execution procedures that they could be able to carry out effectively. For example, as knowledge-telling was a natural and less demanding approach to writing, students tended to rely upon it as a preceding strategy for generating content before dealing with such rhetorical problems as organization and paragraph development.

“Revising the first draft is the most important step to me. When I am writing the first draft, my attention is focussed on turning my ideas into words. So the first draft sometimes is treated as a freewriting. Some sentences are not well formed and some word not well chosen. The whole paragraphs are not properly organized. These all need to be revised or rewritten later.” (S14, Wk11)

By focusing on content first and then considering formal and rhetorical aspects, the student was learning to write in the way that Bereiter &
Scardamalia (1987:12) have posited as “intentionally suppressed problem-solving operations until a first draft was completed”.

Finally, some students associated task demands with inspiration and creativity, two personal factors that were generally regarded as variables outside the domain of the teaching and learning of L2 writing, and beyond the control of students’ intentional learning. Emphasis on the part played by inspiration and creativity in English composition implied these students’ view of writing as a rather gifted activity than as a problem-solving learning task.

In summary, students’ journals reveal the development of task knowledge in three aspects: task constraints, task purposes, and task demands. Task constraints stemmed from deficiency of linguistic, topic and textual knowledge, of which vocabulary was considered as the salient impediment to English writing. Students’ awareness of idea development and logical organization, audience and purpose, and concern for language use indicated the growing knowledge of task purposes for writing an English essay. Finally, task demands were associated with cross-language differences in composition, and the difficulty in shifting from knowledge telling to knowledge transforming to approaching an essay task.

4.3 Strategic knowledge

Strategic knowledge refers to the knowledge students acquire about what writing strategies are, when and how to use them, and their effectiveness (Wenden 2001). Students’ knowledge in this respect would determine their perception of how best to deal with writing tasks. In the present study, strategic knowledge included the following three components: planning and generating, evaluating and revision, and out-of-class resourcing, each of which was made up of a number of themes, as shown below in Table 3.
As a form of introspection, students’ journals did not contain much information about how they planned a particular writing task, and how they generated the first draft. There were only a few journal entries that recorded student’s reflections in this regard. A close scrutiny of the content of these entries found that students’ initial planning strategies conformed to the knowledge-telling approach to a writing task. Students’ knowledge of self-regulatory writing strategies, such as formulating a goal, narrowing down a subject, and evaluating the appropriateness of content against purpose, seemed lacking when they took the writing course. Drawing upon a think-and-say strategy, students typically saw writing as a process of telling everything they knew about the subject.

“I didn’t consider much before I started to write. I just wrote down everything as I thought. So in the end, what I wrote was often different from what had intended to include.” (S18, Wk2)

Such a writing-as-telling strategy seemed to have been widely adopted by students regardless of the writing ability. A student who was considered as a better writer by her classmates wrote:

“I used to pick out a topic and write about everything that comes to my mind. I never had the slightest conception of what it means to narrow down a topic and how it can affect my writing.” (S8, Wk2)

Mentally planning what to write was a major planning strategy that was
mentioned in their journals. The strategy, however, seemed to be a test of one’s thinking ability, and thus often resulted in mental block.

“I used to think and think hard before writing. But often in vain. I couldn’t write down a single word even after thinking for a long time. This made me feel shamed.” (S11, Wk4)

The invention strategies that were consistently practiced in the writing course were timed freewriting and loopwriting. They were first modelled by the teacher in the class, to show them that by keeping the pen movement for a few minutes, they might conquer mental block and find interesting points, of which they might have been otherwise unaware. Reflection on the utility of these strategies was a recurring theme in their journals.

“I never tried to write in this way before. I am amazed that I could write so many sentences in a few minutes. This gives me a sense of achievement.” (S6, Wk4)

However, as the strategies were perceived sharply distinct from their habitual writing behaviours, not every student immediately appreciated such “a strange way” of writing. It appeared that some students were rather sceptical when the strategies were first presented in the writing class.

“I was so surprised when I saw the teacher kept writing for nearly three minutes without any stop. I’m sure it’s difficult for me to do like this. I’m a little afraid of writing. When I am asked to write a composition, I do it slowly. I always stop to think about the things I’d like to talk about. In my opinion, freewriting is even more difficult. How can I write continuously for ten minutes without carefully thinking before writing?” (S10, Wk4)

Apparently, the student doubted that timed freewriting could be used as an invention strategy to overcome the writing block, even though she recognized her problem of slow composing speed. In her view, writing was a linear process of collecting information, mental planning, and drafting. Timed freewriting, therefore, was an atypical writing strategy inconsistent with this customary executive procedure. As the application of the new strategy meant an additional self-regulatory mechanism into the existing executive procedure, which might increase the complexity of task
performance, it was not surprising that scepticism arose before students did not have a clear notion of the benefit that the strategy could bring to them. Constant practice, however, seemed to be essential to overcoming the problem. One student remarked by the end of course:

“What attracts me most is freewriting. It is a complete different way of writing from our usual way. It is usual that before we start our composition, we should think about it. But when we do free writing, we just write down what flashed in mind. At first I thought it was so strange and even doubted whether it would be useful. But as we practiced for a term, I found it is a very useful way. It can make me quick-minded. I often stopped to think how to continue in the past, but now I can write down something without many stops. I will continue to do freewriting and introduce it to others.” (S7, Wk16)

An important aspect of strategic knowledge, as indicated by the frequency of mention in journals, was associated with the evaluation and revision strategies they employed to deal with their ongoing drafts. Students wrote extensively about the utility of self-evaluating strategies that were instructed in the class. An interesting point was that the effectiveness of a specific strategy was found to have varied from student to student. A strategy that was useful for some students might not be well received by others. For example, a self-monitoring strategy introduced and practiced in the class was reading aloud one’s own text. Some students commented that, when they read their own compositions aloud, they felt that they acted less as the writer than as the reader of what they wrote.

“When reading my composition aloud, I found I was listening to my writing and doing self-analysis at the same time. I used my eyesight, the sense of hearing, and thinking at the same time.” (S14, Wk5)

Reading aloud was even considered as a strategy for regulating one’s writing attitude and effort, as one student commented: “A sloppy composition can’t be read aloud at all.” Other students, in contrast, seemed not so convinced of its value, and tended to think that their familiarity with the content still directed their attention even when they read their compositions aloud. They would rather to distance themselves from their texts for some time, so that they could take a fresh look at what they had written.
The consensus among students, however, was that repeated revision was of paramount importance to achieving a high level of task quality, as well as developing self-efficacy and satisfaction with tasks.

“My compositions were often revised for three times. I revised the first draft by myself, and then asked for classmates’ advice. Finally I sought the teacher’s feedback. So when the final draft was produced, and compared with the first draft, I really had a sense of satisfaction, because I could see clearly my improvements.” (S16, Wk14)

Moreover, revision enhanced students’ sense of intentional control over their writing, and the level of task engagement, even though the journals at the early stage also indicated that some students might have experienced difficulty and uncertainty when they first attempted to make content revisions, rather than just cosmetic changes.

“I feel it is difficult to revise my composition. It looks as if it needs to be changed everywhere. Maybe I never thought so carefully about my composition before. In the past, I just made some small changes on grammar or spelling mistakes, but never considered whether the paragraphs were well developed or not.” (S11, Wk3)

The third aspect of strategic knowledge was about resourcing strategies employed in the out-of-class writing activities. The repertoire of resourcing was mainly associated with tackling the linguistic problems for instance vocabulary, extensive reading for increasing subject knowledge, and self-initiated writing. The strategies with respect to vocabulary included consulting dictionaries for word meanings, checking spelling mistakes, and regularly memorizing new vocabulary items. Students also tended to rely on extensive reading of magazines and newspapers to increase their subject knowledge. An important part of out-of-class activities was students’ self-initiated writing, such as writing English letters to friends, and reflective writing after reading fictions, which could be seen as a sign of their positive disposition to learning English writing.

In summary, participation in the writing programme enabled students to acquire their strategic knowledge, particularly regarding evaluating and revision. In contrast to the initial perception of writing as a first-and-final draft to be examined by the teacher, students in the study seemed to have shaped the view that writing was a self-regulated and recursive process that constituted idea generation, drafting, receiving
feedback, self-evaluating and revision, a process for which they needed to assume their own responsibility.

5. Implications and limitations

The present study investigates the metacognitive development of a group of L2 student writers who participated in an instructional context in which self-regulation in writing was fostered. The results presented above suggest that participation in the programme gave rise to the reconstruction of students’ metacognitive knowledge of L2 writing in three dimensions: person knowledge, task knowledge and strategic knowledge.

Compared with the teacher-controlled writing environment, a self-regulated classroom setting, in which they could have their own choice and control over the way of tackling a writing task, was favoured by students. When they were able to make their own decisions regarding writing topics and task procedures, interest and personal involvement in class activities seemed to be heightened. Moreover, person knowledge was manifested in students’ perceptions of their own writing competence. Students were found to build up self-efficacy and confidence in their writing, and tended to be ready for engaging in the high standard of performance. This suggests a close linkage between self-efficacy and self-regulation in writing, that is, one can not easily be developed without the other. However, self-efficacy in writing might also decline in the learning process, particularly when the writing attainments were evaluated against the distal goal.

The acquisition of task knowledge was first evidenced in students’ growing awareness of the nature of knowledge telling and knowledge transforming approaches to a writing task, and the self-regulatory processes inherent to the performance of formal essay tasks. The sense of audience and purpose, thesis statement and supporting details, and logical organization, suggested that students came to perceive the performance of an essay task as regulating their cognitive resources for formulating a writing problem and seeking solution to the problem. Bereiter & Scardamalia (1987) argue that such a view of writing as a problem-solving process was typical of a knowledge transforming model of writing. Task knowledge was also associated with overcoming Chinese composition conventions in learning the English rhetorical pattern. Although students experienced some uncertainty and anxiety when they attempted to write in a way different from composing in their own language, most of them tended to think of mastery over the English rhetoric as the main goal of
learning English composition. Participation in the writing programme therefore made students aware of how they might approach a writing task in ways other than those they had been accustomed to.

The body of strategic knowledge that students acquired seemed to be primarily connected with procedures for idea generation, evaluation and revision. The validity of the instructed strategies turned out to vary from student to student, and from time to time, suggesting that in the absence of a clear notion of what employing the strategies was supposed to yield, students might continue to resort to the composing strategies they had already acquired. An important aspect of the strategic knowledge was students’ general agreement to the significance of self-revision in their task performance. The application of such self-regulatory strategies as self-evaluation and self-revision might help to develop the sense of the self as an active cognitive agent and as the causal centre of their own cognitive activity; metacognitive theorists (e.g. Flavell 1987) argue that the development of such an internal locus of cognitive control could promote the monitoring and regulation of one’s own cognitive enterprises.

These findings suggest to us that engaging students in a self-regulated writing programme contributed to the development of metacognitive knowledge pertinent to mature composing processes of EFL composition. Metacognitive awareness of person, task and strategy could be enhanced through constant task performance that aimed to foster self-regulation in writing. Researchers have claimed (e.g. Wenden 2001, Victori 1999) that metacognitive knowledge is a prerequisite to the deployment of self-regulatory mechanisms in performing a writing task. The findings of the study lead us to a further argument that the acquisition of metacognitive knowledge can be an outcome of engagement in self-regulation in writing.

However, as any research has drawbacks, the present study has its own limitations. One problem can arise from the data analytic procedure employed in the study. The fact that not all students kept a regular journal, especially towards the end of the course, and the process of data reduction, raise the point that the findings of the study might not be generalizable to a broader context. A further problem may emerge since the study did not focus much on students’ individual differences, which might be an interesting issue in such an instructional context. The problems encountered in this study, however, may open up avenues for further research on the development of metacognitive knowledge in L2 writing instruction.
References


