"Ideas First" in Collaborative Second Language (L2) Writing: An Exploratory Study

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Abstract: Drawing from sociocultural perspectives, this paper argues for the necessity of distinguishing the activity of "brainstorming ideas" from the activity of "generating words/phrases" in collaborative L2 process writing. We designed a series of Chinese writing lessons based on the online collaborative learning software GroupScribbles (GS) to explore students' participation and performance with "ideas first" versus "words/phrases first" activity designs. Quantitative data collected from an analytical tool reveal that students engaged more actively in the "ideas first" collaborative L2 writing than in the "words/phrases first" approach. Our research findings suggest that "ideas first" supported by the affordances of the GS tools a viable approach for collaborative L2 writing.

Introduction

Collaborative learning has been considered to be one of the effective instructional strategies in language learning. It "has a 'social constructivist' philosophical base, which views learning as construction of knowledge within a social context and which therefore encourages acculturation of individuals into a learning community" (Oxford, 1997, p 443). As an approach based on this notion, collaborative second language (L2) writing is a recursive, bottom-up process that requires participants to collaboratively contribute words/phrases or ideas, and eventually compose their compositions in individual or groups. Although brainstorming as the fundamental pre-writing activity has been emphasized in various models of the writing process, almost all the models are established based on work in first language (L1) writing. Brainstorming is considered as an idea-generating technique which is an enabler for creative thinking. When models incorporating brainstorming are utilized to guide L2 writing, there is a salient contradiction between L2 writers' ideas expressions and their limited target language proficiency. Some researchers propose the model for collaborative writing process with vocabulary first at the initial step (e.g., Wong, et. al., 2009). In practical collaborative L2 writing activities, the teacher typically encourages the students to write down as much as they are able to without foregrounding ideas or words/phases contributions. In fact, for L2 writers, their low proficiency of the target language often requires them to focus primarily on vocabulary and grammar, and hence hampers ideas generation and expression (Scott, 1996; Stapa & Majid, 2009).

Ideas could take the form of arguments or evidence for an argumentation; they could be inspirations or original thoughts for a narration as well. We use the term "Ideas first" to refer to a particular design of the writing activity which foregrounds the content of ideas rather than their expressions or representations in some language. Students are encouraged to express own ideas related to a general topic in multimodal ways. For Chinese language learners, not only Chinese characters, but Hanyu Pinyin (Chinese phonetics) and even drawings can be accepted. Figure 1 (left) shows examples of artifacts manifesting "ideas" in this type of activity for the topic of: "Adolescent smoking is an increasing serious problem; discuss reasons for that". Figure 1 (right) shows the artifacts manifesting in "words/phrases" for the same topic. The "words/phrases first" activity foregrounds and requires knowledge of the target language, thus emphasizing more on rhetorical structures and grammar. Students are encouraged to contribute Chinese idioms or proverbs related to the topic, or proper nouns or terms or vocabulary which can be used in the given context, or various adjectives or verb phrases helpful for composing more precise and vivid expressions. For a student with higher target language proficiency, she or he may more automatically think of words related to the topic or the context. On the contrary, low proficiency students have a high propensity for weak or no participation. Therefore, it seems that the "ideas first" pedagogy should be distinguished from the "words/phrases first" pedagogy, to enable active participation at the beginning stage of the L2 collaborative writing process.

We propose that "ideas first" is a more effective approach to engage L2 learners in collaborative writing activities. Our study sets out to investigate students' participation in the "ideas first" activities and "words/phrases first" activities respectively. It involves four L2 writing lessons with two different pedagogical designs: two writing lessons involve "ideas first" activities and another two lessons involve "vocabulary first" activities. All the collaborative activities are enabled on a software platform named GroupScribbles (GS), which can facilitate peer online communication and ideas/vocabularies brainstorming and sharing.
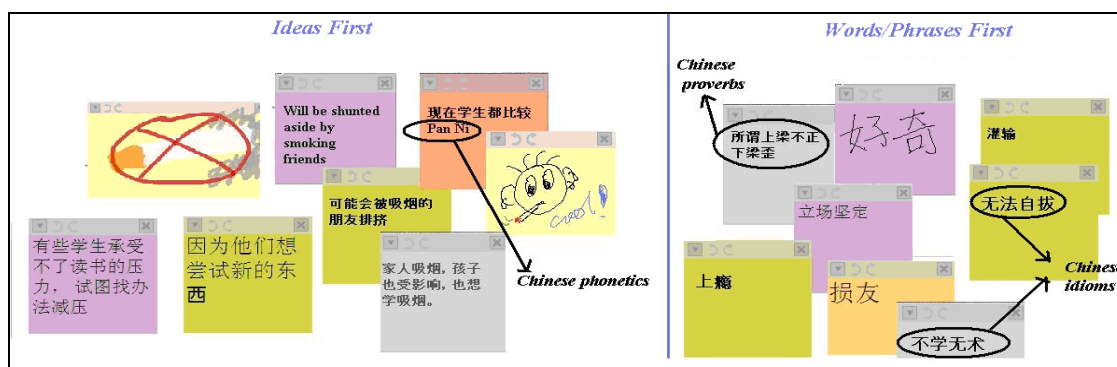
Figure 1. Examples of artifacts from "ideas first" vs. "words/phrases first" activities

The Viability and Importance of "Ideas First"

Many psycholinguists or neuropsychologists hold the view that a person's knowledge of vocabulary is stored in his or her mental lexicon (Harley, 2008), whereas ideas may be stored as concepts and images not yet formulated in words, and can be represented in any form of language. From this theoretical perspective, it seems that the capacity for ideas generation could be separate from language proficiency. When describing their classical model for cognitive process writing, Flower and Hayes (1981) argue that the process of converting ideas into words on paper is analogous to translating, demanding writers to put abstract thoughts through the technical aspects of writing such as grammatical structures. When cognitive load is not expended on vocabulary and language structure, the enthusiasm and capacity of L2 writers to engage in writing and group work participation could be enhanced. Hence, when "ideas first" approach is adopted, there can be more opportunities to exploit participants' creative potential.

Traditionally, writing is regarded as a ''non-linear, exploratory and generative process whereby writers discover and reformulate their ideas as they attempt to approximate meaning'' (Zamel, 1983, p. 165), and ideas come from stored knowledge and experiences directly related to the writing topic. However, this traditional cognitive approach is too narrow in its understanding of social, historical and political contexts of writing (Prior, 2006). Today, with the sociocultural theory being more pervasive in the field of second language learning, there are more concerns over the role of social interaction in students' cognitive development and language learning. A central hypothesis underpins the sociocultural theory of human development whereby higher-order functions develop out of the social interaction of an individual with the external social world (Tharp & Gallimore, 1988) that includes people, objects, and events in the environment. In this view, language as one of the most crucial human artifacts is thought to be socially constructed rather than internally intrinsic (Thorne, 2000). The participation metaphor of learning has been widely accepted, which refers to learning as a process of participation in shared learning activities and social process of knowledge construction (Sfard, 1998). Accordingly, rather than interpreted as internal mental processes solely by the individuals, language learning is viewed as a semiotic process attributable to participation in social activities (Block, 2003; Lantolf, 2000; Lantolf & Thorne, 2006). Therefore "ideas" that can be expressed and shared do play a bigger role and is critical to the creativeness of a learning community. The production and continual improvement of ideas that have value to a community is based on the premise that what the community accomplishes will be greater than the sum of individual contributions and part of broader cultural efforts (Scardamalia & Bereiter, 2003).

Collaborative writing should be seen beyond being just a mere instructional strategy with the obvious advantage that "two heads are better than one". The collaborative writing process could be regarded as a process of meaning-making in which language learning and cognitive development occur in the sociocultural activities of participants' community. This is aligned with the emphasis of Scardamalia and Bereiter's (1987) process writing model that makes the transition from knowledge telling to knowledge transforming.

An Intervention Study

Participants

The study described here is part of a 3-year project to introduce rapid knowledge building practices to primary and secondary schools in Singapore (Looi, Chen & Ng 2009). We co-designed and implemented GS-based collaborative lesson activities with school teachers for students' Science, Mathematics and Chinese language learning. In our work, we investigated useful pedagogies and teaching strategies that tap on the affordances of GS. This paper focuses on the collaborative L2 writing lessons with two types of pedagogical designs by using GS in secondary 3 (grade 9, 15-year old) normal Chinese language learning. In Singapore schools, English as

the first language (L1) is the main teaching language in schools, whereas Chinese is taught as a second language (L2) for the Chinese ethnic students. In this study, the Chinese language class consists of 29 students. The students were organized into 7 groups (each group has 4 students, except a group with 5 students) in order to participate in the GS activities. Before the GS-based writing lessons, this class had been involved in our project for more than half a year (one GS lesson per week), and so they would have been enculturated with the GS environment and collaborative practices enabled by it (Looi, Chen, & Patton, submitted).

GS interface and affordances

The lower pane is the user's personal work area, or "private board", with a virtual pad of fresh "scribble sheets" on which the user can draw or type (see Figure 2). Scribble sheets are the digital equivalent of small sticky notes that enable a lightweight scribbling to be made on the note. The essential feature of the GS is the combination of the private board where students can work individually and group boards or "public boards" where students can post the work and position relative to others', view others' work, and take items back to the private board for further elaboration. Students can choose any mode they feel comfortable to express their ideas through typing, writing by stylus or even drawing on the pad, and then post the pad onto the group or public board to share with others. A student can select any group board by clicking the board number on the right-top, and browse all other groups' postings posted on the public board. GS hence promotes and facilitates intra- and inter-group sharing of ideas/information.
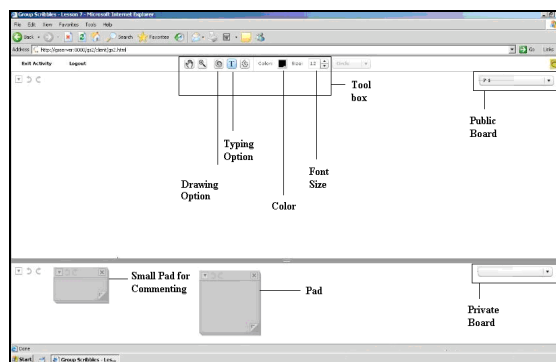

Figure 2. The user interface of GS with a two-paned window

GS is designed for students' collaborative generation, collection and aggregation of ideas through a shared space based upon individual effort and social sharing of notes. Our research work seeks to tap the potential of GS for supporting L2 learning. In language learning, the task posed for collaborative activities does not focus on problem-solving, but it may be targeted towards enriching students' vocabulary and proficiency in language expression, developing their thoughts and writing through cogitating with new words, vocabulary and sentence construction (Looi, Chen & Wen, 2009). When exploring the affordances of GS for Chinese language learning, we find that the affordance of "lightweight participation" fits L2 learners very well. For L2 learners, it is not only difficult for them to express themselves in complicate long sentences, but also difficult for them to extract main points from long paragraphs in a short period of time. By 'lightweight' we mean each student's contribution or post can be composed (written, sketched, or typed) quickly in a small size of scribble sheet. Both fragments of ideas and diversified words/phrases can be represented in scribble sheets. They can be shared democratically, organized conveniently and improved continuously.

Lesson design

This study examines the differences of "idea first" pedagogy and the "words/phrases first" pedagogy in students' L2 collaborative writing. Four GS-based Chinese writing lessons (each of 70 minutes) were co-designed by the teacher and researchers. The topic for the lessons 1 and 2 was "why do Singaporeans feel discontented?", and the task for lessons 3 and 4 was to make a story based on the context that "when you see your classmates Xiaowei and Xiaoli whispering at the school gate, what will you think of?" The topics are designed to be relevant to the students' daily life.

In lesson 1, students were required to start collaborative L2 writing by first brainstorming ideas on the GS platform. In lesson 2, students first organized their ideas and then selected a few good ones to be further developed into paragraphs through GS. In the "ideas first" activity, they were reminded that any mode of expressing ideas is acceptable. Every student could have an equal opportunity to participate in collaborative writing, including not only generating and sharing ideas, but also improving these ideas by negotiating with others.

One week later in lesson 3, the students were asked to start collaborative L2 writing by generating words/phrases related to a new topic to explore story plots. In lesson 4, they wrote the main paragraphs with the collected words/phrases in lesson 3. In the "words/phrases" activity, students were encouraged to contribute suitable Chinese words/phrases that could be adopted directly in the final writing. In the process of interacting with others, students could enlarge their vocabularies and equip themselves with better understanding of the collected words/phrases.

In lessons 1 and 3, students were given examples about ideas on the story and words/phrases related to the topic respectively before the GS activities. For lesson 1, students might be able to come up with more ideas as they were not bogged down by the confusion between linguistic information and ideas on the topic (Scott, 1996). During each lesson, a short duration of time (around 20 minutes) was allocated for the students to do a "virtual gallery walk" via scanning the boards of other groups in GS. Each student could proffer comments or "borrow" or build on good ideas/words from other groups. After lessons 2 and 4, the teacher printed out each group's final products (GS screen capture) for the students who were then required to individually write the composition.

Data Analysis

The analysis of this study includes two parts. In the first part, the GS analytic tool is deployed to probe the students' engagement levels within a lesson. This analytic tool is a program developed by us to extract quantitative information which serves as a proxy for the participation levels of each student in the GS activities. The second part focuses on examining group performance differences under the two pedagogical approaches.

Figure 3 and 4 show the students' participation in GS activities in lesson 1 ("ideas first" activity) and lesson 3 ("words first" activity) respectively. The horizontal axis represents the time of the class period using an interval of 6 minutes. The vertical axis is the aggregate count of all students' actions (including typing, drawing, moving postings etc) on the GS boards. When examining the students' GS actions in the first 6 minutes, we found that students had more participation in the GS based collaborative L2 writing in the "ideas first" activity than in the "words first" activity. There were a total of 10030 actions in lesson 1 and 9851 actions in lesson 3. The data perhaps does not mean that the class students posted a larger number of scribble sheets in the ideas first activity, but it implies that there were more students' participations or interactions via GS. They might contribute more actively, or click on other postings and modify the postings of their peers more frequently.
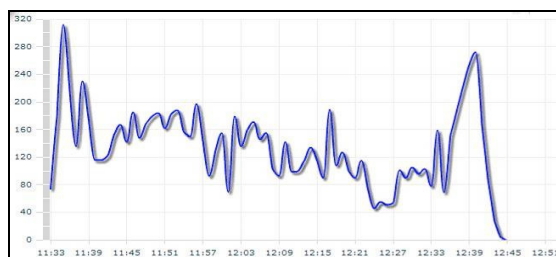

Figure 3. Count of whole class's actions on GS board in lesson 1 "ideas first" activity
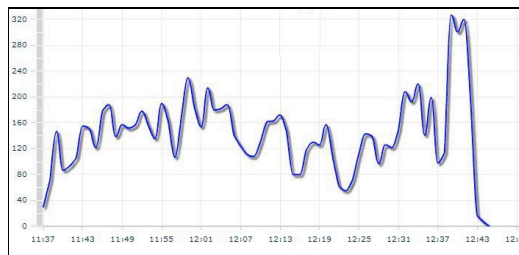

Figure 4. Count of whole class's actions on GS boards in lesson 3 "words first" activity

We further analyzed the data from two groups, namely, group 1 and group 6 (See table 1), to investigate different Chinese language proficiency groups' performances in the same activity. Both groups had a homogenous team composition with 4 students, and the team members were chosen based on their Chinese subject exam results before using GS (class average score was 57). The students' Chinese language proficiency in group 1 (with an average score of 51) is much lower than the students from group 6 (with an average score of 62).

Both groups reported good intra-group collaboration. In their post-lesson reflections, students from group 1 wrote that "my group can collaborate well and complete a task together…can communicate well…

correct each other mistakes and try to improve each other's Chinese". Likewise, students from group 6 considered their group as "a good one" and "a quite efficient group". Students' comments on their group collaboration are consistent with the judgment of the researchers based on the classroom observation.

Table 1. The information of two target groups

Target Group	Group Configuration			Group culture of collaboration
	Division	Group members	Proficiency in Chinese	
Group 1	homogenous	4 (2 girls and 2 boys)	Low	Good
Group 6	homogenous	4 (3 girls and 1 boys)	High	Good

Figure 5 compares the participation levels of two groups in the "ideas first" activity and the "words/phrases first" activity. We note that the difference in language proficiencies has impact on the participation levels of two groups. Group 1 students (an average of 20 actions per 6 minutes) seems to be more active in the "ideas first" activity than group 6 students (an average of 17 actions per 6 minutes) though group 1's members have lower language proficiencies than that of group 6. The difference in participation levels between the 2 groups in the "words/phrases first" activity was not prominent (both on the average 18 actions per 6 minutes). It seems that compared with students from high language proficiency group, low language proficiency group students were more active in "ideas first" activity. A plausible explanation is that they were less limited by language proficiency in "ideas first" activity since they were allowed to use drawings or their first language to express their ideas.
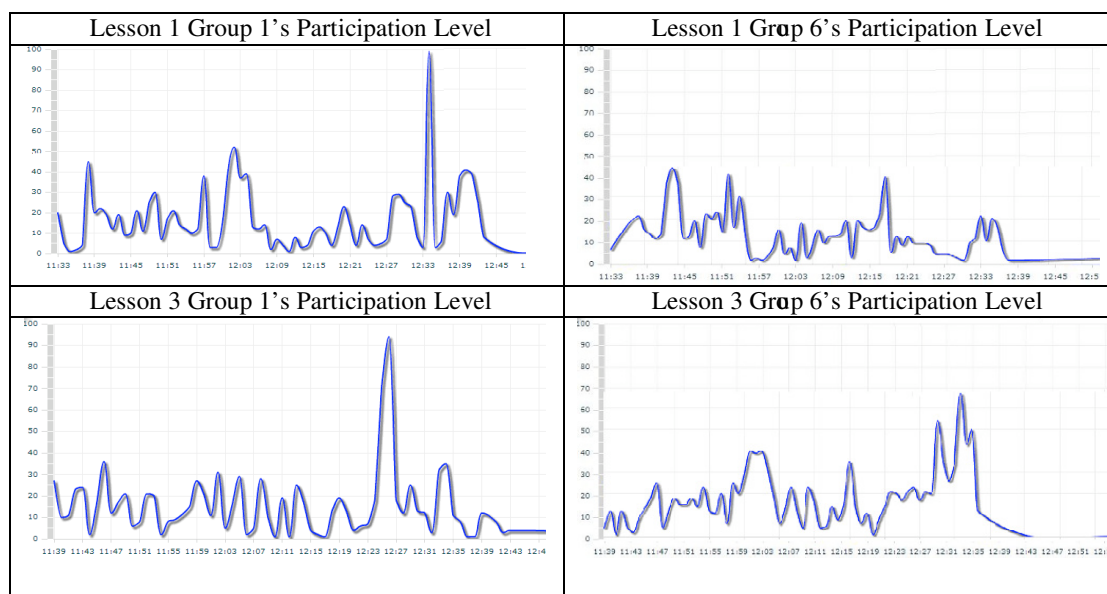

Figure 5. Group participation in "ideas first" activity vs "words/phrases first" activity

As shared by the teacher, the weaker ability groups typically had very low motivation to participate in Chinese writing activities. However, after the implementation of the "ideas first" activity, she said "I did not expect the weaker ability groups could complete the task well". The final GS artifacts of group 1 (Figure 6) were better than the artifacts from other higher ability groups in the "ideas first" activity in terms of richness of ideas and the logic of the ideas. The upper section of the screen shows three arguments for the topic "why do Singaporeans feel discontented?" (circled in dotted lines). The lower section shows three solutions to explain the issue at hand (highlighted by dotted rectangles). Other scattered postings were the comments given by other groups when they were visiting group 1's board. On the whole, after the activity of idea generation and modification in lesson 1, the final GS product of group 1 was well-organized, although some sentences were expressed in an awkward style.

The group selected specific individual ideas and developed them further through idea refinement and group negotiations into arguments why Singaporeans feel not contented. For example, the contribution of "税太高（too high tax rate）", referring to the sales tax, was first mooted by group 1 but was never been mentioned by other groups before the gallery work. In the activity of brainstorming ideas, a girl in the group first generated it in English, and then a boy translated it into Chinese. Later with the help of teacher, they posted "太多税要给

（too much taxes to pay）". Finally in lesson 2, they generated the argument which we highlighted by the dotted ellipse at the right-top of the Figure 6, namely, that "Singaporeans always worry about the high tax rate as high taxes made it less affordable to eke out a living." When challenged by other groups to explain why reducing the sales tax would make people feel contented, they clarified that "if the government reduces the tax, it becomes more affordable for the people to make purchases".
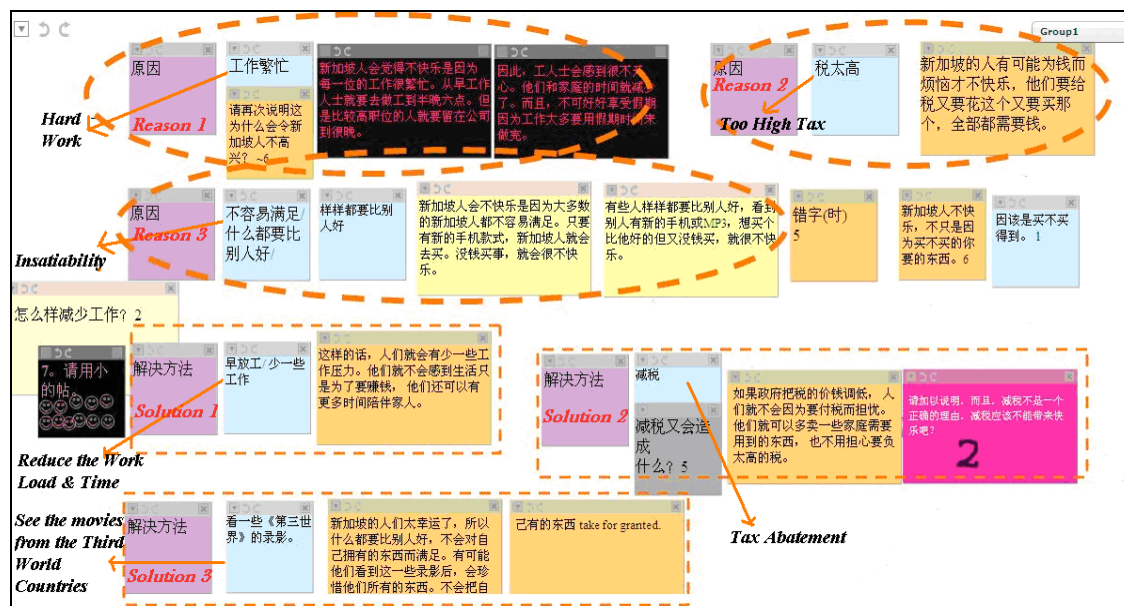

Figure 6. GS screenshot from Group 1 after the "ideas first" activity

In the "words/phrases first" activity, the weakness in language proficiency of group 1 became evident when they were generating words in lesson 1. Figure 7 displays the products of the two groups at the end of the words/phrases contribution phase. The left side of the figure shows the words and phrases generated by group 1, and the right side shows those from the higher ability group. For the benefit of the reader, we circled and translated some simple words posted by two groups, and highlighted comparatively complicated words and idioms within rectangles. Words and phrases from group 1 were much simpler than those from group 6. From a scan of the notes' colours (different students posted in different colours), we found that for both groups, the activity of posting words and phrases were dominated by one group member who had higher language proficiency in the group. In this type of activity, it was difficult to achieve democratic participation within the group collaboration as some students were restrained by their individual language proficiency. In lesson 4, during the process of extending words and phrases into paragraphs, little creativity could be identified from the students' work. This was despite the fact that teacher had constantly reminded the students: "I would like to see more creative stories… do not give me the same stories." Six groups of students wrote similar love stories which were rather cliché.
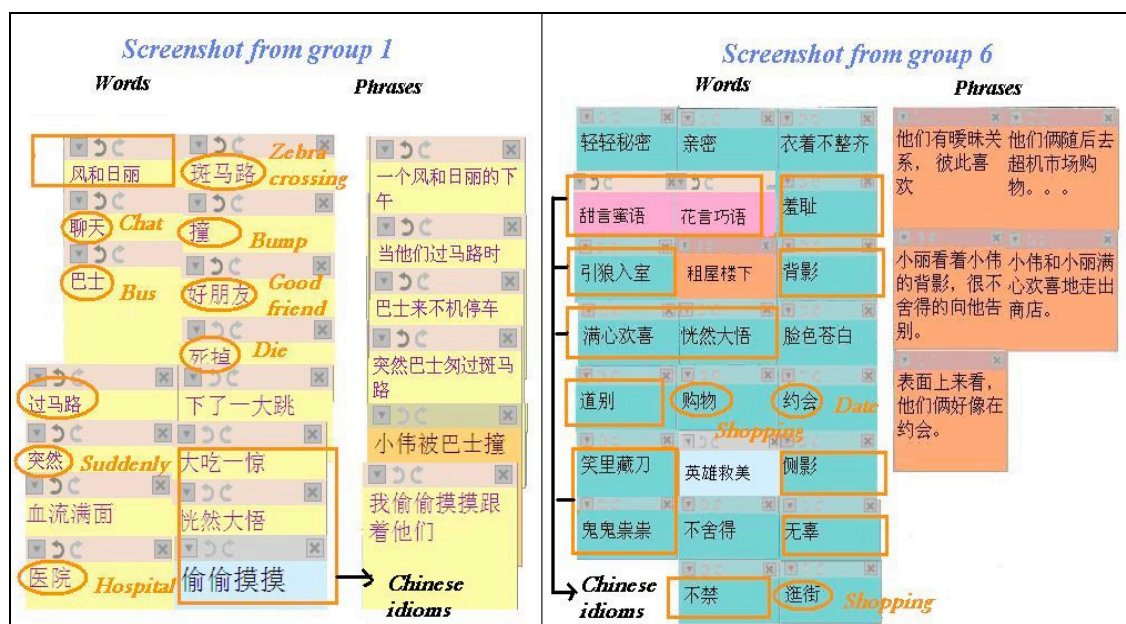
Figure 7. The GS screenshot of two groups in the "words/phrases first" activity

Discussion & Conclusion

The collaborative L2 writing is a complex process which can be affected by various factors. This paper focuses research effort on the role of ideas generation in collaborative L2 writing. Two GS-based Chinese writing lessons, with the "ideas first" and "words/phrases first" activity designs, are compared. The findings suggest that the "ideas first" activity is a viable approach for collaborative L2 writing. Students especially those who do not have good language proficiency more actively participated in the collaborative L2 writing "ideas first" activity. GS artifacts arising from the two different learning activities also provide evidences that the "ideas first" activity encouraged more symmetric participation from students, and engendered more creativity in their writing

The affordances of GS, "multimodal expression" provides the students more modalities to engage in the "ideas first" activities, whereas in the "words/phrases first" the opportunity of participation is "reduced" to words, and which may generally result less class actions on the GS board. In addition, "lightweight participation", plays an important role in students collaborative L2 writing. Due to the size limit of scribble sheet, students have to use brief and recapitulative phrases or sentences to express their ideas in the GS environment. It does not matter if the ideas are not mature. The smallness of scribble sheet encourages every individual to think and share actively, by emphasizing "ideas" rather than language proficiency. Furthermore, the students do not need to worry about the organization of the ideas at the beginning. In a mature learning community, diversified forms of expression could be transformed and organized at the later stage of the learning activity. During this process, new ideas are generated, refined and improved continuously. As the GS activity supports inter-group interactions, ideas could be spread throughout the whole class. A number of studies (e.g., Lockhart & Ng, 1995; Nelson & Carson, 1998) have shown that when students are involved in L2 collaborative writing, they tend to edit the vocabulary or grammatical errors of their peers. Thus, initial representations of ideas do have the opportunities of being continuously polished, and that enables students to write better individual compositions eventually. On the contrary in the "words/phrases first" activity, the students have to rely much on their language proficiency. Even though L2 learners can participate in the group work anonymously, they may not be able to generate word/phrases effectively due to their low language proficiency. Thus students' symmetric participation in the learning activities may still be hindered when the writing activity starts from the words/phrases contribution.

This study is exploratory in nature. Our school-based research is still ongoing and we plan to explore further how the ideas or words spread and are improved upon within and across different student groups in the collaborative L2 writing activities.

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Acknowledgements