Title: Constructivist pedagogy for learner development: The effects of teaching strategic reading

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CONSTRUCTIVIST PEDAGOGY FOR LEARNER DEVELOPMENT: THE EFFECTS OF TEACHING STRATEGIC READING

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Constructivist Pedagogy for Learner Development: The Effects of Teaching Strategic Reading

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Constructivist Pedagogy for Learner Development: The Effects of Teaching Strategic Reading

Abstract

Learner metacognition of tasks can affect their learning outcomes, which is reflected in their efforts towards ameliorating performance in many subject areas, especially reading, in different cultural settings. Findings from such research point to the teachability of strategies that are within the control of learners by virtue of their awareness of the cognitive resources available for use to enhance reading comprehension. This piece of metacognition in many instances helps language learners to grow through constructivist participatory activities. Quasi-experimental in design, involving a Control group and an Experimental group, who were EFL/ESL students from China (PRC), required to satisfy the EAP component in multilingual and multicultural Singapore, this study explored their receptiveness to reading strategy instruction in participatory classroom activities, and its possible effects on reading performance within the constructivist framework. Results show that teacher intervention evolving around such activities had explicit bearings on reading behavior modification and comprehension improvement. All this is discussed with reference to cultural issues in curriculum design in ESL/EFL strategy instruction.

Key words: language learning; constructivist; strategy instruction; Chinese EFL learners; culture
The utility and power of reading in helping second language learners to develop language skills have been documented in the literature and some writers have strongly argued for more language input in order that second language (L2) learners' reading abilities can be effectively improved (e.g., Day & Bamford, 1998; Krashen, 1989). Recent research has also produced results that student awareness, or, metacognition, of reading strategies has correlations with students' success in L2 reading (e.g., Block, 1986; Carrell, 1989; Grabe, 1991; Zhang, 2001). Within the metacognitive framework, strategy instruction, in particular, has been a very strong concern for ESL/EFL language educators (Carrell, Pharis, & Liberto, 1989; Cohen, 1998; Oxford, 2001; Wenden, 1999). This is particularly pertinent to tertiary-level students who have to acquire academic literacy skills, especially reading, to fare well during university years (Johns, 1997).

The above argument and the research findings have their special significance for an EAP programme where the current study was conducted, as the EAP students were faced with a huge amount of reading materials through which their academic reading skills were to be developed. How they could effectively complete them depends on how good they were as ESL/EFL readers. Therefore, in order to enhance their academic reading skills to get ready for their university degree studies through the medium of English, they had to be instructed so that they were metacognitively ready to become strategic readers (Garner, 1994; Paris, Lipson, & Wixson, 1994). This pedagogy is plausible because cognitive and educational research has shown that learner metacognition of the task at hand can affect their learning outcomes, which is generally reflected in their efforts towards ameliorating change and enhancing progress in learning (Hartman, 2001). This is also where good and poor language learners distinguish from each other in terms of their control over strategy use (Naiman, Fröhlich, Stern, & Todesco, 1996; Oxford, 1996).

In studies on learning to read in English as a foreign language (EFL), similar findings have been reported that pinpoint the teachability of strategies that are within the control of learners by virtue of their awareness of the cognitive resources available for use to enhance reading comprehension (e.g., Cohen, 1998; Jimenez, 1997; Zhang, 2001). In the literature on teaching
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reading strategies to such learners, for example, results show that teacher instruction would bring about learner development in both first language (L1) (Brown & Palincsar, 1982; Loranger, 1997) and second language (L2) situations (Carrell et al., 1989; Janzen & Stoller, 1998; O'Malley, Chamot, Stewner-Manzanares, Russo, & Kupper, 1985). Nevertheless, there are reservations as regards teaching ESL/EFL reading to PRC students. The usual worry is that they might resist group work or learner-centered pedagogy because of their cultural bound to the Confucian learning tradition, where the teacher is highly respected and expected to perform a teacher's duty, i.e., to teach (cf. Biggs, 1998; Ho & Crookall, 1995). The limited literature based on anecdotal evidence (Field, 1985; Kohn, 1992) seems to suggest that PRC ESL/EFL learners are different from their Western counterparts in their learning approaches, although few empirical research studies have suggested that a Western method should be given the most credit (Gu, 1996). Rather, it seems that in general the eclectic method has been proven feasible (Wu, 2001). Unfortunately, however, little empirical evidence is available about how Chinese ESL/EFL students would respond to such intervention if an effort were made within the framework of constructivist pedagogy given that Confucian learning culture favors teacher-led activities even in large classes (Biggs, 1998; Jin & Cortazzi, 1998; cf. Wertsch, 1985).

Although there is no certainty about what repercussions or ramifications would accompany such a pedagogical endeavor, it is essential that empirical research be conducted to inform classroom teachers of its utility or psychological constraints, especially how students would respond to such instruction. Henceforth, this paper reports on an exploration into student receptiveness to strategy instruction and possible effects of such instruction on L2 reading improvement of a group of learners studying ESL for entry into the English-medium tertiary education in multilingual and multicultural Singapore. Two assumptions motivated the present study: 1) reading is a high-order skill which can be automatized when provision of sufficient linguistic input and training is accessible (Baker & Brown, 1984; Koda, 1994; cf. DeKeyser, 2001, for a comprehensive explanation of automaticity and automatization); and 2) Chinese students are more inclined to respecting teachers (Ho & Crookall, 1995), which would make such instruction easier than is usually the case. In the following section, key concepts involved
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The term learner development refers to a composite of factors contributing to learner growth in language skills (Wenden, 2002). Social constructivists argue that in the learning process meaning is constructed through dialogue and learning takes place in an area that is just above the current competence of the learner, i.e., within her/his "Zone of Proximal Development" (ZPD) through the co-construction of knowledge (Vygotsky, 1978, 1986). Dialogic learning, in this view, is crucial to learner development. Procedurally, learning takes place on an interpersonal plane and then on an intrapersonal one. Idea appropriation proceeds from dialogue between an "expert", or a more competent learner/peer and a "novice", during which the latter internalizes the new concepts under guidance. Language, which serves the function of a "tool", facilitates learning of knowledge and skills (Vygotsky, 1986). With regard to language learning, it is not sufficient to focus only on conceptual development; instead, skill-based approaches to learner development through interactional participatory activities evolving around teaching/learning tasks would benefit learners more meaningfully (Donato, 1994; Lantolf & Paulenko, 1995). In other words, the idea of adopting constructivist pedagogy for learner development is based on the understanding that learners' mastery of how to learn is more important than the learning act itself (Nassaji & Swain, 2000; Vygotsky, 1986; Wenden, 1999).

As Donato (1994) explains, the type of scaffolding or guided support is helpful in that it is “a situation where a knowledgeable participant can create supportive conditions in which the novice can participate, and extend his or her current skills and knowledge to higher levels of competence” (p. 40). In the words of Aljaafreh & Lantolf (1994), “the teacher, the learner, their social and cultural history, their goals and motives, as well as the resources available to them, including those that are dialogically constructed together” are all brought together by the concept of ZPD (p. 468). Nassaji and Swain’s (2000) research has equally convincingly shown that “help provided within the ‘ZPD’ was more effective than help provided randomly” (p. 48).
Therefore, systematically developing reading skills through such a pedagogical emphasis on learner participation and interaction in the classroom context might be more suitable than that of only developing decoding skills. This is also because research has shown that successful readers do not process written linguistic input at the decoding level only; instead, their language processing occurs at multiple levels and efficiency in processing is a prerequisite for successful learning. In addition, learner metacognition plays a crucial role (Baker & Brown, 1984; Bernhardt, 1991; Flavell, 1992; Garner, 1994; Zhang, 2001).

Flavell (1992) and Garner (1994) in particular have argued for giving greater attention to the role of metacognition in helping students’ self-regulation of their own learning (see also Baker & Brown, 1984; Hartman, 2001). They maintain that students’ metacognition, i.e., their cognitive control and regulation over learning, can enhance learning efficiency (Alexander, 1995). The issue at hand now is how classroom teachers can maximize students’ own potential to develop them into more proficient and self-regulated learners in and outside the second language classroom. Consequently, strategy instruction has the potential of approximating the goal of helping learners to improve performance, because through dialogic classroom processes of strategy instruction, learners are offered more options to actively engage themselves in the sociocultural interactions in the classroom (Pavlenko & Lantolf, 2000), where teachers and students deconstruct the learning processes for purposes of constructing meaning. Collectively, both the metacognitive and constructivist ideas are useful for implementing a strategy instruction programme aimed at developing learner efficiency.

**Strategy Instruction and Reading Performance**

Metacognitive strategy training or instruction has always been regarded as very important in educational psychology and reading pedagogy, as metacognition is learners’ internal monitoring and controlling of their learning processes (Flavell, 1992). Research in L1 situations indicates that this process at the managerial level plays a crucial role in the development of intelligence and helps learners to take active control of their learning (Baker & Brown, 1984; Palincsar & Brown, 1984). As extensions of the preceding studies on the good and poor learner differences, follow-up studies on the effects of reciprocal strategy instruction
have also been reported to have positive results (Brown & Palincsar, 1982; Loranger, 1997; Pearson & Fielding, 1991). Findings have been found to lend support to the effectiveness of strategy instruction. In all these studies learners have demonstrated improvement in performance due to strategy instruction.

In almost the same vein, L2 researchers have conducted studies that were aimed at not only uncovering possible reading strategies which learners used (Anderson, 1991; Block, 1986, 1992; Jimenez, 1997; Knight, Padron, & Waxman., 1985; O'Malley et al., 1985), but also the effects of strategy instruction (e.g., Carrell et al., 1989). However, due to a fact that many of the research studies in L2 situations were conducted on a short-term basis in various cultural settings, reading strategy instruction from a cultural perspective with respect to PRC students has not been documented. Reciprocal teaching of reading strategies seems to be a recent addition to the study of L2 learner strategies in language learning and language use (Cohen, 1998; Janzen & Stoller, 1998).

Cohen (1998), in reviewing language learning strategy studies, also realizes the challenges of such instruction; but he describes metacognitive strategies as tackling pre-assessment and pre-planning, on-line planning and evaluation, and post-evaluation of language learning activities and of language use events. Hence, teacher instruction or learner training in the EFL reading curriculum would not be involving insurmountable tasks, because such strategies allow learners to control their own cognition by coordinating their planning, organizing, and evaluating of the learning processes within the “ZPD”. There is a rich body of literature showing that the higher proficiency students are more likely to use metacognitive strategies than the lower-proficiency ones and that the former tend to use them more flexibly and effectively as well.

O'Malley et al. (1985) reported on a study that identified appropriate learning strategies for students and demonstrated that explicit instruction in the use of the strategies significantly improved student performance. The authors concluded that the teaching of learning strategies, coupled with the application of those strategies in a subject-area discipline, greatly enhanced student learning. Carrell et al. (1989), by setting up a control/experimental design, conducted
their research into two metacognitive strategies—semantic mapping and experience-text-relationship method. Results show that metacognitive strategy training was effective in helping learners (experimental group) improve L2 reading, while the control group did not show obvious progress. They also noted that the effectiveness of one type of training versus another might depend on how reading was measured. Interestingly, their results also indicate that the effectiveness of the training had relationships with students’ learning style differences (see Oxford, 2001, for a recent review). They concluded, therefore, that in L2 reading pedagogy, especially for adult learners in academic ESL settings, inclusion of explicit, comprehension-fostering metacognitive strategy instruction would benefit learners in such contexts.

Chamot and O’Malley’s (1994) attempt to systematically implement change to the way language instruction is done deserves some elaboration here. Their Cognitive Academic Language Learning Approach (CALLA) was designed to serve the purpose of connecting the learning experiences of primary and secondary school ESL students. Content teaching, language improvement and strategy instruction were integrated in the approach so that students were provided with an array of support for academic development. Results also show obvious progress in those students who received the CALLA training. Possibly because of such moves and the prolonged research interest along this line, a recent study by Janzen and Stoller (1998) involved helping L2 readers to develop as expert, or, more strategic readers, through instructed practice, or what they called integration of strategic reading in L2 instruction. As reported, the research had four steps: 1) choice of a text at an appropriate difficulty level, 2) selection of strategies for instruction, 3) structuring of lessons and the writing of transcripts for guiding the presentation of strategies, and 4) the adaptation of instruction to suit learner needs and reactions to in-class modeling, practice and discussion. They found that, through the four-step systematic strategy instruction and practice, their students learned how to read effectively, and became autonomous and aware of the processes involved.

Nonetheless, in the selection of reading strategies for instruction, caution had to be in order. The available literature on PRC EFL learners suggests that the Chinese way of teaching and learning EFL reading would strike native English speakers as very different from what is
the common practice in the West; hence, teaching reading to such students would be greatly frustrating. For example, Kohn (1992) reported that,

American teachers who travel to China to teach English should recognize certain widely accepted beliefs about the teaching of reading. That students can rely on their knowledge of a familiar context, that they will guess meanings from context, and that they will then volunteer those meanings aloud as part of a classroom discussion are all expectations quite alien to Chinese classrooms. (p. 122)

The above classroom situation that Kohn depicted had to be borne in mind in reading strategy instruction, as that could be quite common at a time when Chinese students were not exposed to Western approaches to teaching reading comprehension, particularly within territorial boundaries in China itself. However, recent reports tend to view the issue from the perspective of social change, which, in turn, has led to some innovation in pedagogical practice reflected in learner behaviours (cf. Parry, 1996). The issue could be quite culture-specific (see Kramach, 1993, 1998, for important suggestions in this regard). For example, Szalay, Stroll, Liu and Lao's (1994) observations reinforce their inclination of assigning such behaviours to student respect for teachers. Through a survey Szalay and colleagues found that “the PRC students are particularly inclined to view their teachers in an idealised role endowed with a great deal of authority, esteem and respect”, and that Chinese students put much more emphasis on the teacher-student relationship than North Americans. They were also naïve and of simple moral character. Obviously, these learners' inadequate proficiency in the language itself is another important consideration when their EFL reading behaviours are examined (Gu, in press; Zhang, 2001).

Similarly, Stephens (1997) reported that the PRC students in the United Kingdom were usually put under stereotypical shadows and they were actually very cooperative if not restricted by their limited language proficiency. Ho and Crookall (1995) explored possibilities of helping these learners to break with Chinese tradition towards learner autonomy. All this
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was assumed to be facilitating background information in conducting reciprocal reading strategy instruction in the present study, especially when these participants were learning ESL for academic purposes in a foreign country, where the predominant linguistic input greatly differs from that in their home country. Hence the cultural unfamiliarity that they were faced with and the anxiety that they experienced might be driving forces for their high locus of control and high motivation level as exhibited in their greater efforts to succeed (Zhang, 2000; Zhang, Hvitfeldt, & Skuja-Steele, 1999; see Dornyei, 2001, for comprehensive reviews).

The above limited review of studies on the effects of strategy training on learner development shows that they were conducted in contexts where the learners were heterogeneous in ethnicity so that the learners had to use English as the medium for communication among themselves. How a homogenous group from the PRC, who were studying in a multilingual and multicultural society in Asia, would respond to such instruction remains unclear. Hence, the purpose of the present study was twofold, i.e., it was interested in examining: 1) how Chinese EFL students, when put into a foreign learning culture, would react to strategy instruction and 2) whether such instruction would have some effect on this particular group of learners’ possible reading behavior change and reading comprehension improvement.

Methodology

Context of the Study

The study was conducted in Singapore, where the PRC EFL/ESL students were studying on the EAP Programme, whose main objective was to improve students’ academic communication skills in English. Singapore is a multilingual and multicultural society where English functions as a lingua franca among different ethnic groups. Also because of its colonial legacy, Singapore is one of the few countries that has the national policy where English is stipulated as L1 in the school curriculum and the mother tongues of different ethnic groups (Malay, Chinese, and Tamil) are offered as L2. Because of this, Singapore society in general is greatly exposed to English, and English is not only the medium of instruction in education, but
also the language of the media, the law and government administration, which means that it is not only one of the four official languages, but also a language which is functioning as the *de facto* language for practical and functionary purposes (Cheah, 1998; Pakir, 1993). In other words, by virtue of the role of English in the education system, high proficiency in English is a prerequisite for academic success. The PRC students in the present study had to exert greater efforts while they were on the EAP programme in order to achieve a near-equivalent level of English proficiency to mingle with their Singaporean counterparts, who had passed at least 4 “A-level” subjects on the Cambridge-Singapore General Certificate in Education Examinations, to qualify for degree studies in either of the two local universities, as explained below.

**The EAP Programme.** The EAP was tailored to meet the needs of foreign EAP students, which means that after six months of intensive English training they were expected to be proficient in listening, speaking, reading and writing in English in addition to acquiring other study skills, for example, basic skills and conventions in writing up a research paper.

The objective of the intensive EAP programme was achieved by integrating the application of language skills with some training in the use of information technology (IT) so that they were well prepared to meet future challenges in their academic studies in the universities. Students had on average 28 weeks of programme time and they had 6 hours of Academic Reading Comprehension (ARC), 6 hours of Academic Writing Skills (AWS), 10 hours of Academic Oral Communication (AOC), 2 hours of Introduction to Computer Skills (ICS), in addition to 2 hours of Tutorial Self-access (TSA) each week. Students were given relatively ample chances for managing their own study, namely, learning to regulate their own progress, which means that equipping them with basic study skills, particularly academic reading skills, would be of great importance to their future degree studies in engineering fields.

**Reading Instruction.** The guidelines given to the EAP teachers clearly stipulated that Communicative Approaches were encouraged in the teachers’ classroom procedures. For the ARC course, a similar rationale was supposed to be followed, and a variety of texts were used in the class, ranging from newspaper cuttings, magazine feature articles, selected on-line
reading materials to defined textbooks. Although other materials were optional in classes, the defined textbooks were the core textbooks in the Programme. The ARC Coordinators encouraged all the teachers to use the core textbooks and prepared different kinds of materials for use, but they also gave all the teachers freedom to use other kinds of materials of their own choice in their prospective classes. The course syllabus was generally skill-based. In order to arouse students' interests and to further enhance their reading ability, ARC teachers also designed a variety of activities.

Research Questions

The overall aim of the study was to investigate PRC ESL/EFL learners' receptiveness to strategy instruction, or reading behavior change, and any possible effects of strategy instruction on academic reading improvement. More specifically, the following two research questions were addressed.

1. How receptive were a group of Chinese ESL/EFL learners when they were learning to read academic material in a foreign context? In other words, did they exhibit any attitudinal change in approaching reading tasks?

2. If there were changes in their attitudes towards reading tasks, what reading behaviour changes were apparent after a two-month strategy-training programme?

3. Was there any improvement in student reading performance in relation to strategy instruction?

Procedure

As the study focused on EAP students' metacognitive strategy training to examine their receptiveness to strategy instruction and its possible effects on reading improvement through reciprocal teaching procedures, reciprocal teaching took up the bulk of classroom activities. To this end the present study involved an experimental group undergoing two-month reading strategy training integrated with language instruction, and a control group exposed only to the relatively more traditional mode of language instruction. What this means is that the instructor/researcher did not deliberately teach the control group how to use reading strategies
that were systematically taught to the experimental group. The training program consisted of two stages, the first of which concerned the enrichment of metacognitive knowledge through group discussion and direct instruction; and the second, the cultivation of self-regulation by means of self-questioning and self-reflection through interactional and participatory discussions (Vygotsky, 1986). Reading strategies drawn on research reports and monographs in the literature (e.g., Block, 1986; Carrell, 1989; Cohen, 1998) were consulted as reliable sources of input.

**Participants.** Ninety-nine PRC students from two cohorts of enrolment were invited to be participants, whose average age was about 18. As stated in the *English Language Syllabus for Middle Schools* (MOE, 2000), their previous school EFL curricula had prepared them with approximately 2,800 basic vocabulary words after starting learning EFL at around 12 when they were first-year Junior Middle School students. Altogether, they had a cumulative period of five years in EFL learning at the time when the data were collected. They can be best described as a group of learners who were highly motivated. They came from a country generally described in the literature as Confucian in learning and cultural orientations, meaning that they tended to be respectful of the teacher and were relatively reticent in contributing to classroom discourse. Hence, two groups of EFL students were chosen for comparing the results of strategy instruction. The control group and the experimental group comprised 49 and 50 students respectively.

**Selected Reading Strategies and Texts.** To begin with, Holschuh and Kelley’s (1988, pp. 1-18) list of possibly useful strategies was shared with the participants in relation to longer reading materials provided. Most of these reading strategies were later confirmed as facilitating reading comprehension in the literature (e.g., Anderson, 1991; Block, 1986, 1992; Carrell, 1989; Pritchard, 1990). The reading materials were used together with the strategy list. Strategies later identified as helpful to reading comprehension in the literature were added to their original list (see also Cohen, 1998, for a summary). Although in the literature a distinction is made among metacognitive, cognitive and socioaffective strategies, in the present study, the reading strategies considered to be useful for learners were classified into three groups with
reference to pedagogical operationalization, i.e., whether they were used during pre-reading, while-reading or post-reading stages. The expanded list of these strategies is described in Table 1.

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pre-reading Stage</strong></td>
<td>Instructional stage where preparations are made for the start of the reading lesson</td>
</tr>
<tr>
<td>Previewing or surveying</td>
<td>Advance look at text to see its layout, illustrations, etc</td>
</tr>
<tr>
<td>Activating schema knowledge</td>
<td>Getting ready to read by using what is already known of text</td>
</tr>
<tr>
<td>Predicting content</td>
<td>Anticipating possible content of text</td>
</tr>
<tr>
<td>Scanning for highlighted words or expressions</td>
<td>Looking for highlighted words or expressions</td>
</tr>
<tr>
<td><strong>While-reading Stage</strong></td>
<td>Instructional stage where learners are fully engaged in the comprehension process</td>
</tr>
<tr>
<td>Reading headings, subheadings, etc.</td>
<td>Attending to organizational aspects of text</td>
</tr>
<tr>
<td>Self-questioning</td>
<td>Asking questions about text</td>
</tr>
<tr>
<td>Self-monitoring</td>
<td>Self-checking comprehension</td>
</tr>
<tr>
<td>Focusing on meaning, not form</td>
<td>Paying attention to meaning, rather than form</td>
</tr>
<tr>
<td>Relating meaning to what is already known</td>
<td>Connecting what is read with what is already known</td>
</tr>
<tr>
<td>Reviewing main ideas after each &quot;chunk&quot; of reading</td>
<td>Summarizing main ideas either orally or in written form</td>
</tr>
<tr>
<td>Asking how the main idea or purpose is related to previous paragraph</td>
<td>Looking for logical relationships between paragraphs</td>
</tr>
<tr>
<td>Looking for familiar affixes and roots in unknown vocabulary</td>
<td>Trying to solve vocabulary problems using morphological knowledge</td>
</tr>
<tr>
<td>Using the context to guess at unknown words/expressions</td>
<td>Guessing at unfamiliar vocabulary items through contextual clues</td>
</tr>
<tr>
<td>Identifying main ideas and supporting details</td>
<td>Looking for relationships between main ideas (e.g. topic sentences) and details</td>
</tr>
<tr>
<td><strong>Post-reading Stage</strong></td>
<td>Instructional stage where reading task is completed</td>
</tr>
<tr>
<td>Evaluating reading</td>
<td>Examining how well text is understood</td>
</tr>
<tr>
<td>Giving personal response</td>
<td>Making personal comments on text</td>
</tr>
<tr>
<td>Reviewing to summarize text meanings</td>
<td>Reading text again to summarize text meanings</td>
</tr>
<tr>
<td>Checking effectiveness in strategy use</td>
<td>Reflecting on how effectively a strategy was used</td>
</tr>
</tbody>
</table>
Pretest and Posttest. The Reading Comprehension section of the International English Language Testing System (IELTS) was used as pretest and posttest measures. The test itself was new to all students who came from across the PRC. The IELTS scores of the participants in both groups were collected after the two tests in order to examine possible effects of strategy instruction on their reading behavior change in relation to reading improvement.

For the purpose of eliciting participant interests in the strategy instruction programme, three simple questions were asked of both the experimental and the control groups with the change in their learning environment: 1) Have you experienced any differences in the learning contexts between China and Singapore? 2) Have you ever heard of the term “yuedu celue”, or, reading strategies? 3) Do you want to learn more about how you can read more effectively? In order to locate any instructional effect, a list of the reading strategies (as shown in Table 1 above), in a questionnaire format on a 7-point Likert scale, ranging from 1 (extremely infrequently) to 5 (extremely frequently), was distributed to the participants before the instruction and collected afterwards. The questionnaire was intended to elicit their reported frequency or degrees of likelihood to use these reading strategies. The reciprocal teaching was based on this knowledge, as described below.

Procedures in Strategy Instruction

Because of prior work on strategy instruction in L1 reading instruction reported in the literature, to adopt a scheme and proceed proved to be relatively easy. Winograd and Hare’s (1988: 123-124) work was taken as the basis and instructional procedures were based on the following six principles in teacher explanation, as shown in Table 2.

Brainstorming and Sharing. Based on both groups' responses to the last two questions and the six principles (Winograd & Hare, 1988), metacognitive discussions with the experimental group about what the definition of a strategy followed. After this preliminary discussion, all the participants were referred to the strategies listed in a table format similar to Table 1, but the definitions were not provided. Then the whole class was divided into small groups and asked to talk about what each of the strategies meant to them by supplying a definition, what situations would be appropriate for using such strategies so that reading
comprehension would be enhanced, and why such strategies should be used. After the
discussions, while the text was collaboratively processed, the participants were asked to
explain what strategies should be used, why, when and where such strategies should be used.
Integrating strategy instruction into the ARC curriculum became a design feature in the
classroom.

TABLE 2 Principles and Procedures in Strategy Instruction

<table>
<thead>
<tr>
<th>Pedagogical Focus</th>
<th>Teacher Roles and Classroom Procedures</th>
</tr>
</thead>
<tbody>
<tr>
<td>What was the strategy?</td>
<td>Teacher described critical, known features of the strategy and provided a definition of the strategy</td>
</tr>
<tr>
<td>Why should a strategy be learned?</td>
<td>Teacher told the students why they were learning about the strategy by explaining the purpose of the reading strategy instruction component and its potential benefits for their self-regulated learning</td>
</tr>
<tr>
<td>How was the strategy used?</td>
<td>Teacher broke down the strategy, explaining each component of the strategy as clearly and articulately as possible and show logical relationships among the various components</td>
</tr>
<tr>
<td>When should the strategy be used?</td>
<td>Teacher illustrated the use of the strategy with reference to particular text types</td>
</tr>
<tr>
<td>Where should the strategy be used?</td>
<td>Teacher showed examples of when the strategy should be used after describing appropriate circumstances under which the strategy would benefit reading comprehension</td>
</tr>
<tr>
<td>How should the use of the strategy be evaluated?</td>
<td>Teacher demonstrated how to evaluate the successful or unsuccessful use of the strategy, including suggestions for fix-up strategies to solve remaining problems</td>
</tr>
</tbody>
</table>

Scaffolding Strategy Use. When teaching reading strategies through passages from Holschuh and Kelley (1988, pp. 1-18), as a follow-up procedure, the teacher/researcher intentionally involved the participants in the discussions of the strategies and then asked them to use them in the reading tasks in small groups with reference to pre-, while-, or post- stages in reading. The relevance and effectiveness of such strategy use were shared immediately among the members of each group of 4-5 students prior to any class presentations. The activities were supervised and the participants were ensured of opportunities to talk about their
experiences after the teacher/researcher explaining, modeling and evaluating and so on were completed. This strategy instruction programme lasted for two months, totaling 24 hours of instruction.

RESULTS AND DISCUSSION

Learner Knowledge of and Interest in Reading Strategies

Participant knowledge of the change in learning contexts or learning environments was clear. Ninety-three (96%) students strongly realized the sociocultural dereferences between the two societies, suggesting the existence of the foreign learning culture in which they had to struggle for success. Both groups’ responses to the two questions on their knowledge of and interest in reading strategies show that they were quite familiar with the term “reading strategies”, but they were not very sure about what the word “strategies” specifically meant. A predominant majority (98%) expressed strong interests in learning more about reading strategies so that they could read more efficiently. Eighty-nine students (93%) of the total sample said they had heard of the term. Of the experimental group, 43 (86%) students reported having heard of it and of the control group, 46 (93%) had similar experiences. However, their naïve definitions of strategy show that their previous EFL reading strategy use experiences were limited and their self-reports were also divergent. Jiang’s definition of a reading strategy, for example, shows that he was not very sure of what it really was, even in Chinese. His fuzzy understanding of it was something like a method of how to do reading. Xu, in contrast, seemed to be quite confident of what he thought should be the defining features of a strategy, as he was able to relate himself to his experiences of using some of the strategies, which were to be discussed in the later part of the lesson. Both examples are shown below.

Extract 1:

Reading strategy is ... it is how to read ... yeah, I don’t know. (Jiang)

Extract 2:

Reading strategies is way of reading ... they can help us read better. For example, kuaisu yuedu (fast reading) is useful. (Xu)
Clearly, the two participants came to the EAP programme with somewhat different perceptions of ESL/EFL reading, so both definitions differ in depth. Similar patterns were found among other participants on the defining features of “strategies”. Needless to say, some might have heard of the term, but defining it itself might be a challenging task for many of these students. Therefore, it is understandable that some students were not able to name the “strategies” even in the mother tongue. Kalaja (1995) posits that learner beliefs or their metacognitive knowledge about language learning do not necessarily lead to language improvement. This seems to be true if we do not make a difference between direct and indirect efforts learners have made to improve language skills (O’Malley & Chamot, 1990; Oxford, 1990), or reading skills, for that matter. However, beliefs or metacognitive knowledge, might affect language learning or reading comprehension in different ways (Baker & Brown, 1984; Gamer, 1994; Wenden, 1999) or vice versa (Zhang, 2001). Therefore, the information obtained for the first two questions has provided us with some useful data on learner perceptions of EFL reading.

**Learner Receptiveness to Strategy Instruction**

Reading strategy instruction seemed somewhat foreign to some Chinese ESL/EFL students, but for the experimental group, when the concept was introduced to them, they showed their enthusiasm to learn what it was. The following excerpt illustrates how the participants involved themselves in the dialogic activities where teaching reading strategies with reference to specific academic text types for comprehension was the central concern in pedagogical procedures.

*Extract 3:*

1 T:  Ok, let’s have a quick look at this passage. Can you see the title?

2 S:  No.

3 T:  What is the first sentence, then?

4 S:  This one …

5 T:  Can you guess what the text will be about?
6 S: No.
7 T: Why?
8 S: Because I can't see the rest of paragraphs, so I don't know the meaning of the text.
9 T: You are probably right Hewen, but let's see if we have any other comments on your
observations from your classmates.
10 S: Part of the first paragraph already tell us some text's main idea.
11 T: Good. Can you show us?
12 S: The first few words (pointing to the text).
13 T: Ok, what strategies did we just try using, then?
14 S: Umh ...
15 T: Jianjun, you seem to have something to say?
16 S: Yeah. Actually, I think ... I think, we used some strategies ... "guess"?
17 T: Yes, "guess", you mean "guessing" as a strategy? Yes, we also "predict" text contents by
guessing. When you have some words or expressions that are familiar to you, you can
use this knowledge to get at the meaning of those that are new. What other strategies did
we use? Can someone tell us? ... Very good.
18 S: We first looked for the first sentence of each paragraph, then we ...
19 T: You mean we were looking for topic sentences.
20 S: Yes.

As the above extract shows, reciprocal teaching through interactive activities imparted
students some new information on how to read. Their interests in learning to use certain
strategies were also manifest. When asking them to predict text content by "guessing", the
teacher did not explicitly tell them what strategy was to be used. Instead, students were
encouraged to make an effort to experience how that particular strategy could become
available and useful in that context. From line 8 we can see clearly that students were
expecting to see a broader context in order to get at the meaning of the paragraph as a whole.
This is quite logical in many cases; but to proceed with a more audacious move is more
obvious in some other students. In line 10 another student says that he was able to get at the
idea of the paragraph because she had noticed that the topic sentence in the paragraph indicated the main idea of that paragraph. Note, however, this process of negotiating meaning among the teacher and the rest of the classmates also engaged all the students in understanding the *process* in addition to the *product* of reading comprehension.

*Extract 4:*

21 T: In our previous lessons, we tried some strategies for efficient or better reading comprehension. We will try some other strategies in today's session. What ...? Yes, Lianyi?

22 S: Er, we did try some other strategies, such as guessing ...

23 S: We also tried to pre...

24 T: Yeah, we also tried to predict what would the text be about. Predicting means to make a logical connection between what you read of the text, e.g., title, subtitles, etc. and then you feel that you already roughly know the content of the passage based on your understanding of these or the first sentence.

25 S: We continued reading although we didn't completely understand the text.

26 T: Right. Don't stop reading, because, when you read on, some unclear parts will show their meanings.

27 S: What do you mean by “predict”, sir?

28 T: It is a very good question. Jiemin, can you try to explain it to your class?

29 S: Sir, sorry, I can't do it in English. But I think in Chinese, it is ok for us.

30 T: You mean you know what it means to “predict” in Chinese?

31 S: Yes, I looked it in my electronic English-Chinese dictionary for its Chinese meaning yesterday. To predict mean something like to guess what is going to happen; you also explain to us last time.

32 T: Very good. Can we look at the word again and see how it is formed? Now, who knows that meaning of “pre-”? Any examples?

33 S: (a short period of silence)

34 T: Can someone think of any word that begins with “pre-”?
35 S: Pre- … (with majority looking at the teacher)

36 T: OK. I understand that we need some time to learn these. “Pre-” means “before”, and “dict.” means “say”. So what does “predict” mean?

37 S: It mean to say something … earlier … hmm …

38 T: Very good. It means you say something before it really happens. It is interesting to look at words in this way, isn’t it?

39 S: Yeah. (with majority nodding their heads).

40 T: So, you have learned another strategy. What should it be called?

41 S: Looking for word parts.

42 T: Yes. You are looking for familiar roots, prefixes and suffixes. Again, you used another strategy just now. What is it, Lei?

43 S: Using dictionary.

44 T: Quite right. Even dictionary use is not as simple as what we know about. What will happen in one reading if you use a dictionary too frequently?

45 S: We will not have enough time.

46 S: We can’t read fast.

47 T: Exactly. So you have to make quick decisions about whether you should use the strategy, when and where and why you should or should not. Now, which places in the first paragraph did you think you had to use a dictionary?

48 S: Only in the later part of the text. Several new words … We didn’t know what to do …

Extracts 4 and 5 are continuations of the previous lesson on finding topic sentences in order to summarize the main idea. When the teacher started his reading lesson by asking the students to think of other strategies they could have come up with, they immediately became enthusiastic. The students mentioned predicting as a strategy again. This was the opportune time for the teacher to explain and model its use as reinforcement. To muster up student courage, the teacher focused on cultivating student initiation to use the dictionary at this stage. Lines 32 to 48 further show the teacher’s rationale in bringing in that strategy and the strategy of “using familiar word parts to work out unfamiliar word meaning” to share with his students.
This was followed by an evaluative question from the teacher to relate students to previous experiences of reading strategy use. Surprisingly, in line 50 we find that one student said that he had not used the guessing strategy before.

*Extract 5:*

49 T: You read with a purpose and then you are making hypotheses or guesses about whether the text is what you expect it is, and in your reading, some of the wrong guesses will become clear. This is where "predicting" is necessary. But do you think you just used the strategies effectively?

50 S: No, first time I use it.

51 T: Ok. Several examples showed that we must understand what strategy we should use, why we should use it, where and when we should use it. Now let's see how we can use this and other strategies just discussed in the following paragraphs ...

As is evident, the classroom processes of reading strategy instruction were not all the time shrouded with success. Some degree of student resistance to such strategy instruction was also perceivable. Lines 2, 6 and 8 show that, when students did not really see the value of a skill-based approach to reading comprehension, cooperation was not unanimous. Therefore, understanding the rationale for such pedagogy seems very important. However, as the sessions went on, after the participants finally understood that reading in EFL did not only involve using lexical and grammatical knowledge to derive meaning from the text, but also a negotiation process wherein the reader meets the text, peer collaboration and classroom talk became very vibrant.

**Effects of Strategy Instruction on Learner Development**

The strategy instruction programme started with explaining, modeling and evaluating strategies used. In this process the experimental group benefited from group sharing and discussion of many of the instances or contexts where particular strategies were used.
<table>
<thead>
<tr>
<th>Strategies</th>
<th>Pretest</th>
<th>Posttest</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Experiment N=50</td>
<td>Control N=49</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mean  SD</td>
<td>Mean  SD</td>
<td></td>
</tr>
<tr>
<td>Previewing or surveying</td>
<td>3.13 .62</td>
<td>3.18 .74</td>
<td>6.00 .15</td>
</tr>
<tr>
<td>Activating schema knowledge</td>
<td>2.87 .51</td>
<td>2.85 .45</td>
<td>4.90 .14</td>
</tr>
<tr>
<td>Predicting content</td>
<td>2.10 .43</td>
<td>2.23 .41</td>
<td>5.89 .39</td>
</tr>
<tr>
<td>Scanning for highlighted words or expressions</td>
<td>3.67 .72</td>
<td>3.72 .52</td>
<td>5.12 .52</td>
</tr>
<tr>
<td>Reading headings, subheadings, etc.</td>
<td>3.21 .32</td>
<td>3.22 .61</td>
<td>4.23 .48</td>
</tr>
<tr>
<td>Self-questioning</td>
<td>3.11 .67</td>
<td>3.13 .77</td>
<td>4.22 .24</td>
</tr>
<tr>
<td>Self-monitoring</td>
<td>3.45 .77</td>
<td>3.67 .71</td>
<td>5.08 .45</td>
</tr>
<tr>
<td>Focusing on meaning, not form</td>
<td>3.23 .72</td>
<td>3.31 .53</td>
<td>5.12 .44</td>
</tr>
<tr>
<td>Relating meaning to what is already known</td>
<td>3.21 .58</td>
<td>3.32 .72</td>
<td>3.82 .36</td>
</tr>
<tr>
<td>Summarizing main ideas after each “chunk” of reading</td>
<td>2.95 .68</td>
<td>2.86 .65</td>
<td>4.28 .76</td>
</tr>
<tr>
<td>Asking how the main idea/purpose is related to previous paragraph</td>
<td>3.12 .67</td>
<td>3.21 .57</td>
<td>4.34 .29</td>
</tr>
<tr>
<td>Looking for familiar affixes and roots in unknown vocabulary</td>
<td>2.98 .56</td>
<td>3.01 .76</td>
<td>5.12 .39</td>
</tr>
<tr>
<td>Using the context to guess at unknown words/expressions</td>
<td>3.21 .49</td>
<td>3.00 .67</td>
<td>5.14 .76</td>
</tr>
<tr>
<td>Identifying main ideas and supporting details</td>
<td>3.00 .37</td>
<td>2.76 .58</td>
<td>5.18 .52</td>
</tr>
<tr>
<td>Evaluating reading</td>
<td>2.91 .51</td>
<td>3.03 .70</td>
<td>4.30 .76</td>
</tr>
<tr>
<td>Giving personal response</td>
<td>2.84 .45</td>
<td>2.87 .64</td>
<td>4.28 .61</td>
</tr>
<tr>
<td>Reviewing to summarize text meanings</td>
<td>2.79 .23</td>
<td>3.11 .45</td>
<td>4.34 .79</td>
</tr>
<tr>
<td>Checking effectiveness in strategy use</td>
<td>2.69 .77</td>
<td>2.89 .67</td>
<td>5.18 .52</td>
</tr>
</tbody>
</table>

N = 90

**p<.001  ***p<.0001 n.s. = not significant
However, the control group did not seem to improve as much as did the experimental group within two months' time. The control group and the experimental group started at almost the same level, both in terms of their metacognitive strategy use and their L2 reading proficiency, as shown in Table 3. The mean scores of both groups' perceived use of strategies did not exhibit any statistically significant difference on the pretest administered to them. However, after two months' strategy instruction, the experimental group outperformed the control group not only in perceived strategy use but also in reading improvement.

The experimental group's use of global strategies, i.e., strategies that are more concerned with the meaning than the form of the written language, was particularly obvious. Their perceived use of all other strategies except for "relating meaning to what is read" seems to suggest that as long as provision of strategy instruction is made available, PRC EAP students would like to cooperate with the teacher to construct meaning collaboratively in a form of dialogic interaction.

As Table 4 further indicates, there was an overall change in the experimental group's perception of the utility of all the listed reading strategies except one. This is enlightening, as, after two months' instruction, at least the teacher's effort was expressed in the students' deliberate articulation of the value of these strategies taught or shared in class. Surprisingly though, I feel daunted by the fact that they did not show any statistically significant change in "relating to what is read to what is already known", suggesting that students still need practice in associating what is newly learned with what is already in their minds. It is also possible that in the reciprocal teaching processes, this strategy might not given sufficient attention.

On other strategies, the experimental group clearly improved when compared with their earlier perceptions of these strategies prior to the strategy instruction programme. The most noticeable one is "previewing or surveying" reading materials before reading ($t = 32.12$, $p < .001$). "Activating schema knowledge" ($t = 24.21$, $p < .001$) and "predicting content" ($t = 25.35$, $p < .001$) were highly regarded. This seems to indicate that these students were psychologically ready to uptake this knowledge during their prereading stage. What is more comforting is that they realized the importance of "checking effectiveness in strategy use" ($t =$
26.22, \( p < .001 \). As mentioned earlier, more frequent use of a strategy without proper flexibility and checking does not usually lead to effective learning (Cohen, 1998). If this is taken to be true, then, the little change we have seen here has its special meanings.

**TABLE 4 Instructional Effects on the Experimental Group’s Reading Strategy Use**

<table>
<thead>
<tr>
<th>Strategies</th>
<th>Treatment Conditions</th>
<th>Pretest</th>
<th>Posttest</th>
<th>( t )</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Strategies</strong></td>
<td></td>
<td>Mean SD</td>
<td>Mean SD</td>
<td></td>
</tr>
<tr>
<td>Previewing or surveying</td>
<td></td>
<td>3.13 .62</td>
<td>6.00 .15</td>
<td>32.12***</td>
</tr>
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<td>24.21***</td>
</tr>
<tr>
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<td>2.10 .43</td>
<td>5.89 .39</td>
<td>25.35***</td>
</tr>
<tr>
<td>Scanning for highlighted words or expressions</td>
<td></td>
<td>3.67 .72</td>
<td>5.12 .52</td>
<td>15.34**</td>
</tr>
<tr>
<td>Reading headings, subheadings, etc.</td>
<td></td>
<td>3.21 .32</td>
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<td>13.25**</td>
</tr>
<tr>
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<td></td>
<td>3.11 .67</td>
<td>4.22 .24</td>
<td>12.13**</td>
</tr>
<tr>
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<td></td>
<td>3.45 .77</td>
<td>5.08 .45</td>
<td>15.38**</td>
</tr>
<tr>
<td>Focusing on meaning, not form</td>
<td></td>
<td>3.23 .72</td>
<td>5.12 .44</td>
<td>18.21**</td>
</tr>
<tr>
<td>Relating meaning to what is already known</td>
<td></td>
<td>3.21 .58</td>
<td>3.82 .56</td>
<td>n.s.</td>
</tr>
<tr>
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<td>14.34**</td>
</tr>
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<td>4.34 .29</td>
<td>12.32**</td>
</tr>
<tr>
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<td>2.98 .56</td>
<td>5.12 .39</td>
<td>19.34**</td>
</tr>
<tr>
<td>Using the context to guess at unknown words/expressions</td>
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<td>3.21 .49</td>
<td>5.14 .76</td>
<td>16.21**</td>
</tr>
<tr>
<td>Identifying main ideas and supporting details</td>
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<td>3.00 .37</td>
<td>5.18 .52</td>
<td>17.32**</td>
</tr>
<tr>
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<td>4.30 .76</td>
<td>12.73**</td>
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<tr>
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</tr>
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<td></td>
<td>2.79 .23</td>
<td>4.34 .79</td>
<td>10.69**</td>
</tr>
<tr>
<td>Checking effectiveness in strategy use</td>
<td></td>
<td>2.69 .77</td>
<td>5.18 .52</td>
<td>26.22**</td>
</tr>
</tbody>
</table>

**N = 50**

*** \( p < .01 \) *** \( p < .001 \)

To see the possible effects of strategy instruction on reading improvement, their EFL reading scores on the pretest and the posttest were compared. To do so, the two groups’
Constructivist Pedagogy for Learner Development

reading scores were submitted for independent t-tests. Although the two groups were at the same starting level, the experimental group seemed to have benefited from such instruction. Results in Table 5 show that there were statically significant differences between the two groups' performance on the posttest ($t = 10.71, p < .001$). The good statistic of $\eta^2 = .34$ suggests that strategy instruction can account for about 34% of the variances, indicating that there was a strong association between the two variables according to Hatch & Lazaraton (1992, pp. 265-267). The control group did not seem to have gained as much on the posttest as did the experimental group. Furthermore, their perceived reading behavior change as seen in their choice of strategies was also minimal; that is, they did not seem to attribute value to the strategies that were given to them for choice possibly because of a lack of teacher provision or instruction.

**TABLE 5 EFL Reading Performance before and after Strategy Instruction**

<table>
<thead>
<tr>
<th>Treatment Condition</th>
<th>Pretest</th>
<th>Posttest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Control</td>
<td>Experimental</td>
</tr>
<tr>
<td></td>
<td>$(N=49)$</td>
<td>$(N=50)$</td>
</tr>
<tr>
<td>EFL Reading Score</td>
<td>$M = 20.14$</td>
<td>$M = 20.52$</td>
</tr>
<tr>
<td></td>
<td>$SD = 2.20$</td>
<td>$SD = 2.24$</td>
</tr>
<tr>
<td>Significance (2-tailed)</td>
<td>n.s.</td>
<td>$t = 10.71$ $p &lt; .001$</td>
</tr>
</tbody>
</table>

Since reading is one of the most uniquely human and complex of all cognitive activities, helping learners how to read and further develop their reading skills will help them learn from text by themselves. Moreover, successful reading requires many basic processes, such as the identification of letters, the mapping of letters onto sounds, and the recognition of words and syntax, with its ultimate goal of reading to learn from text (Paris *et al.*, 1994; Pressley & Afflerbach, 1995). Based on these skills, learners can move a step forward by connecting what is read with what they already have in their minds as schema or background knowledge and interact with the text using this knowledge (Pritchard, 1990). In order to achieve these
objectives, L2 readers have to continue practising until they have acquired the skills necessary for independent, self-regulated or autonomous learning. This is exactly why it is necessary to be optimistic about the kind of strategy instruction conducted so far within the constructivist framework, as a comparison of the data collected before and after the instruction shows that the strategy instruction had effects on their perceived reading strategy use in connection with their reading performance improvement.

Possibly because of its Western legacy, research related to reading strategies in connection with PRC students is meagre. Earlier reports on Chinese EFL learners seem to suggest that strategies used by Chinese EFL students were of low-order and that they did not have the conceptual abilities to use those strategies strongly promoted by researchers and teachers in the West (Field, 1985; Kohn, 1992). Supposing it was true, then the instructional procedures resulted in some degree of change in the participants' perceived use of reading strategies. Learner beliefs and attitudes exhibited positive changes in the experimental group, whereas for the control group their reading behavior tended to lapse into dubiety due to non-exposure to learner training. One explanation for the change could be that they might have realized the value of a strategy-based approach because they were in a new learning and social context where the requirements for academic literacy in English were different from what they believed in while they were in their home country, where they learned EFL simply for satisfying graduation requirements. Moreover, such classroom intervention was their first experience, as they realized that a predominant part of the instruction was centered on learner contributions in participatory activities.

As we can see, the instructional component (Winograd & Hare, 1988) adopted in the present study covered most of what Paris et al. (1994) have termed declarative knowledge, procedural knowledge and conditional knowledge. The first one deals with what the strategy is and why the strategy should be used; the second deals with how the strategy should be used; and the third one deals with when and where the strategy should be used and how to evaluate the effectiveness of the strategy used. The experimental group's improvement in strategy use and their reading performance seem to show that teacher explanations that were inclusive of
most of the six elements in the Winograd and Hare (1988) instructional model worked to a great extent. Participant endorsement to those strategies usually regarded in the literature as more beneficial to reading comprehension suggests that at least they made a mental move away from sticking to basic skill utilization as represented by the use of decoding strategies at the lexical and sentential levels only. Instead, they made attempts at approaching the reading material holistically, and on top of that, they also dealt with local features of the reading tasks. This change is phenomenal seeing that the Chinese EFL students have been traditionally branded as "rote" learners, who did not seem to know the use of the strategic resources to effect efficient learning to their greatest benefits.

Vygotsky's (1986) sociocultural perspectives emphasize that peer sharing and collaborative learning in a conducive environment can lead to effective learning. The results indicate that with instructional intervention through teacher-student dialogues within the framework of constructivist pedagogy, i.e., within their "ZPD", metacognitive strategy use can be reinforced, leading to progress in reading strategy use and reading proficiency; whereas neglect of metacognitive strategy training may possibly lead to the reduction of effective and flexible strategy use, hence impairing reading comprehension. It is particularly the case when these students had to meet future challenges in academic settings where they were required to read large quantities of print and on-line materials in the specific science or engineering fields. Part of the findings also lends support to research findings in second language acquisition research (e.g., Nassaji & Swain, 2000).

Another important consideration might be gauging learners' motivational level (cf. Dornyei, 2001; Schmidt, Boraie, & Kassabgy, 1996). As described earlier, these PRC students were highly motivated, which might be the reason why a constructivist approach to learner development worked well in the present study. Although many of the strategies given to them in the pre-training session were quite foreign to them, they did not take a hostile attitude; instead, they were almost ready to learn something new, as they were worried about how they could manage so many reading tasks (Zhang, 2000; see also Horwitz, Horwitz, & Cope, 1986). This anxiety might have driven them to improve their strategy repertoire. That is why after two
months' training, clear differences were observed. It has to be borne in mind, however, that these differences in strategy preference are only participant perceptions. Woven together with the findings are participants' cultural inclinations and learning styles, which are equally important learner variables not taken into consideration in the present study (cf. Kramsch, 1993, 1998; Melton, 1990). At this juncture, it can only be speculated that their respect for the teacher in the classroom, the change in the learning context and career orientations in using English could be contributing factors to the success of the training program (cf. Biggs, 1998; Jm & Cortazzi, 1998).

CONCLUSION AND IMPLICATIONS

The present study was set up to investigate learner receptiveness to strategy instruction and its possible effects on student improvement in academic reading comprehension within a constructivist framework. The results indicate that PRC learners were positive to such intervention and this classroom practice was conducive to learner development given that they came from a Confucian learning culture. This seems to imply that, although different cultures have their own literacy practices, learners are able to accommodate to change under the guidance of the teacher through dialogic interaction in classroom contexts when the learning environment changes (Wersch, 1985).

In the field of educational psychology, Alexander (1995) proposes that a Domain Model of Learning be implemented. This suggests that the level of knowledge learners have in a particular domain affects self-regulation or metacognition. Thus, novice and expert learners distinguish from each other in terms of the competence they have in reading to learn. This means that novices "are likely to engage in metacognitive activities less often and less successfully than learners with more subject area knowledge, who are the competence stage of learning in a domain" (cited in Hartman, 2001, p. 39). Therefore, one of the implications of such interventional procedures reported here might be that these students, by virtue of the didactic effects aforementioned, will start thinking about how some metacognitive reading strategies can be successfully translated into their new tasks. This rethinking is particularly
beneficial to EAP students who are to read texts of different domain knowledge prior to their being streamlined to their future areas of concentration. Obviously, due to the limitations of this study, it is not clear whether it was the case. Future research needs to explore this further.

Grabe (1991) cautions that “effective strategy training is not a simple or easy matter” (p. 393), as the duration of instruction, clarity of procedures, student responsibility, and strategy transfer are variables influencing strategy instruction results. These are important considerations in conducting strategy instruction programmes. If a research study were conducted within constraints, some other issues would have to be thoroughly taken into account. For example, learner resistance to pair work or group work might be present at the very onset. In the present study, reading strategy instruction appeared to be new to some students at the outset of the programme, but, when the researcher realized that care had to be taken in implementation, students also became cooperative. As reported above, several students said that they had seldom expected that the reading teacher would spend so many sessions teaching them how to read strategically. What they had waited for was the teacher’s explanation of language points through a more “intensive reading” mode. Nevertheless, they gained from such instruction. Although the Chinese has the saying that a good reader can “read ten lines at a glance” (yimu shihang), the students were not taught sufficient strategies in their L2 reading classes while they were in China. It is obvious that, though there is the worry that reading strategy instruction, as a concept, is somewhat foreign to Chinese EFL students, when it was introduced to the students, they actively responded to such instructional intervention. As a result, their strategy use and reading performance also improved. This means that reading teachers, working on an understanding of the learning culture these students came from, can teach reading strategies. Of course, care needs to be taken in classroom procedures so that classroom atmosphere can be maintained through participatory activities.

Magnan and Tochon (2001), in reviewing the rationales for learning French as a foreign language, point out that “recent research questions the role of consciousness in input processing, emphasizes the effect of mediation, and highlights the importance of teacher thinking in adapting curricular contents to learning environments” (p. 1092). A similar scenario
seems to be reflected in our program. Evidently, teaching L2 reading is never done in a vacuum. A needs analysis can be a good starting point for all curriculum and instructional designs, particularly in the case of EAP programmes. The analysis has to take into consideration students' learning style differences (Melton, 1990), motivational levels (Schmidt et al., 1996) cultural inclinations, interests, difficulty levels of material, and the social context in which learning and teaching take place, as well as their L1 literacy experiences in different cultures (Kramsch, 1993; Parry, 1996; Street, 1993; Zhang, et al., 1999). Therefore, teachers' classroom procedures that include students' cultural inclinations and curriculum objectives should become normal practice so that in the teaching process, teachers and students can construct meaning in a joint effort through teacher-student dialogic communication of the reading processes and the crucial elements in such collaboration (Oxford, 1997; Pressley & Afflerbach, 1995). This can also be the talk-aloud process through which teachers get relevant information about students' deficit in strategic resources, whereas students get necessary inklings of what they should be doing in effective reading, how they should be doing it, why, when and where they should be doing it when they are given new reading tasks.

References


