Possibilities and Challenges of Implementing Self-Regulatory Instruction in Hong Kong Chinese Language Classes

Kit Ling Lau[*]
Department of Curriculum and Instruction, The Chinese University of Hong Kong

Abstract

Self-regulated learning (SRL), comprising elements of strategy use, metacognition and motivation, has been identified as a key factor of successful learning in many previous studies. SRL has also been widely advocated by the Hong Kong Education Bureau since its curriculum reform. Besides natural maturation, research findings have highlighted the important role of the classroom environment in developing students' SRL. Based on a series of studies conducted in Hong Kong Chinese language classes, this paper discussed the possibilities and challenges of implementing SRL-based instruction in Hong Kong. Participants in this series of studies were 31 teachers and 1,121 Secondary 4 students in Hong Kong. Both quantitative and qualitative data were collected to provide a comprehensive understanding of teaching and learning in Chinese language classes from the perspective of SRL. On the one hand, the results indicated that Chinese language teachers generally held a positive attitude towards implementing SRL-based instruction and most of the features of SRL-based instruction showed positive relations with Hong Kong students' strategy use, motivation and reading performance. These findings support the advantages of applying the principles of SRL-based instruction in Hong Kong classrooms to facilitate students' learning. On the other hand, many teachers had reservations about increasing the degree of autonomy in their classrooms. A high degree of student autonomy was also found to be associated with negative learning outcomes. The effects of contextual and cultural factors on teaching and learning in Chinese classrooms and suggestions for developing Chinese students into self-directed learners are discussed.

Keywords: Chinese language instruction, Hong Kong students, self-regulated learning

1 Self-Regulated Learning and Its Importance

Self-regulated learning (SRL) is widely viewed as a crucial element of successful learning (Perry, Phillips, & Dowler, 2004; Pintrich & Zusho, 2002). Although the conceptualization of SRL varies in different theoretical perspectives, the most common definition of SRL comprises elements of strategy, metacognition, and motivation (Horner & Shwery, 2002; Perry, 1998; Perry, Hutchinson, & Thauberger, 2007; Pintrich & Zusho, 2002; Winne & Perry, 2000; Zimmerman, 2001). Self-regulated learners are metacognitive in goal setting and self-evaluation; strategic in applying effective learning strategies to optimize their learning processes and products; self-efficacious, intrinsically motivated, and emotionally mature (Perry, 1998; Perry et al., 2007).

In reading research, SRL has also been found to be an essential factor of students' reading development (Horner & Shwery, 2002; Housand & Reis, 2008; Paris & Paris, 2001; Perry et al., 2007). Significant relations between students' use of reading strategies, reading motivation and comprehension have been supported in many previous studies (e.g., Brown, 2002; Guthrie & Wigfield, 2000; Pressley, El-Dinary, Wharton-McDonald, & Brown, 1998). Good readers are also self-regulated learners who are skillful at using a repertoire of reading strategies before, during and after reading a text and believe they can read well because of their active and strategic reading (Hilden & Pressley, 2007).

2 Instructional Practices that Promote Self-Regulated Learning

Although the advantages of SRL have been well documented in previous research, many children do not naturally develop into self-regulated learners as they grow up (Baker, 2005; Bembenutty, 2011). Studies into the relation between classroom context and SRL have highlighted the important role of instructional practices that may promote and inhibit students' SRL development (Butler, 2002; Paris & Paris, 2001; Pintrich & Zusho, 2001; Wolters & Pintrich, 1998). Based on the related theories and empirical studies on SRL and reading research (Housand & Reis, 2008; Lombaerts, Engels, & van Braak, 2009; Perry, 1998; Perry, Phillips, & Hutchinson, 2006; Perry & VandeKamp, 2000; Perry, VandeKamp, Mercer, &

* Corresponding Author: Dr. Kit Ling Lau (dinkylau@cuhk.edu.hk)
  Associate Professor, Department of Curriculum and Instruction
  The Chinese University of Hong Kong

Nordby, 2002; Perry et al., 2004, 2007; Pintrich, Roeser, & DeGroot, 1994; Schunk & Zimmerman, 1997; Turner, 1995), the following four important principles of reading instruction are identified to constitute a high-SRL classroom context:

1. Nature of task:

   Direct instruction in domain knowledge and strategic skills is emphasized in the teaching content of SRL-based instruction to establish a solid foundation for students to develop into self-regulated learners. The learning materials and activities in SRL-based instruction should be open, complex, and authentic to facilitate students' higher-order thinking skills and motivation in learning.

2. Instrumental support:

   During the initial developmental stage of SRL, teacher support, such as modeling, coaching, and scaffolding, serves as a major means of transforming students from other-regulation to self-regulation. Peer support through cooperative learning activities is also useful to enhance students' self-regulatory skills and motivation.

3. Autonomy structure:

   SRL-based instruction is different from the teacher-dominated authority structure in traditional classrooms. It emphasizes the importance of giving students a certain amount of control over their learning to promote students' intrinsic interest and responsibility in learning, such as guiding them to set up personal goals and determine their own learning progress, providing choices of assignment types and formats for them to choose.

4. Evaluation practices:

   Assessment in high-SRL contexts is embedded in ongoing classroom activities. Students are encouraged to focus on personal progress rather than competing with each other. Moreover, involving students in self- and peer-evaluation is an effective way to enhance their metacognition and self-efficacy.

3   Traditional Chinese Culture, Curriculum Reform, and Self-Regulated Learning

The concept of SRL is mainly derived from Western theories and studies. At first glance, SRL's emphasis on students' active role in learning seems to contradict the traditional view of teaching and learning in Chinese contexts. Influenced by Confucian Heritage Culture (CHC), Chinese classes are always described as teacher-centered and authoritarian. Instructional practices in traditional Chinese classes tend to be mostly expository and focus on knowledge transmission and drilling for external examinations. Teachers in Chinese schools are considered authorities and superior. Chinese students are often stereotyped as passive learners who always rely on their teachers' instruction and rote-based learning at the expense of critical thinking (Gow, Balla, Dember, & Han, 1996; Ho, 1994, 2009; Ho, Pang, & Chan, 2001). According to the observations of some researchers, the CHC-influenced instructional approach is still very common in current Chinese educational settings. The packed curriculum and highly competitive examination system in many Chinese societies may exaggerate the influence of this traditional approach on Chinese teachers' daily practices (Biggs, 1996; Kwok, 2004; Morrison, 2006; Pong & Chow, 2002).

While the Confucian culture and competitive learning environment in Chinese societies seem antithetical to the concept of SRL, the importance of SRL has been increasingly emphasized in recent studies and curriculum reform in Chinese societies. Consistent with the findings in Western studies, the positive impacts of SRL on students' reading development have received substantial support in studies conducted among Chinese students (Chan, & Sachs, 2008; Cheng, 2001; Law, Lau & Chan, 2003; Zhang & Wu, 2009). It was found that Chinese students also showed a positive attitude towards self-directed learning (Gan, 2009; Neber, He, Liu, & Schofield, 2008). At the end of the 20th century, Hong Kong started a large-scale curriculum reform in basic education that continues today. Similar to the educational reform in other East Asian societies, such as China, Singapore and Japan, many Western educational theories and concepts have been introduced in the new curriculum. The main theme of curriculum reform in Hong Kong is "Learning to Learn," highlighting the change of focus from "teaching" to "learning," and a new emphasis on the process of learning rather than memorizing facts (Hong Kong Curriculum Development Council [HKCDC], 2001a). SRL is thus advocated as one of the main initiatives of the curriculum reform and this new concept of learning soon aroused the interest of many front-line practitioners in Hong Kong.

4   SRL Studies Conducted in Hong Kong Chinese Language Classes

The curriculum change in Hong Kong provides a good context for studying SRL in a Chinese society. Different from many previous studies that have investigated SRL from a general perspective, and assuming that SRL is a relatively general and stable process that operates in the same way across different subjects, the author conducted a series of studies to investigate SRL specifically in Chinese language classes. Chinese language is generally regarded as a very traditional subject in Hong Kong. Descriptions of Chinese language teaching, such as teacher-dominated, focusing on knowledge transmission and drilling (Tse

et al., 1995) well represent a typical CHC instructional approach. Due to curriculum reform, the Chinese language curriculum in Hong Kong has been dramatically changed from the traditional teacher-centered and knowledge-based approach to one that is student-centered and competence-based. The new Chinese language curriculum shares many features with SRL-based instruction, such as emphasizing the development of student independent language skills, allowing more flexibility for teachers to select reading texts and other teaching materials, encouraging teachers to adopt a more student-centered pedagogy instead of instilling knowledge to students using didactic methods, and to make use of formative assessment to facilitate student learning (HKCDC, 2001b). Studies concerning the implementation of the new curriculum, however, revealed great variations among teachers in their acceptance and implementation of the new instructional approach (Lau, 2006, 2007a, 2007b; Tam, 2006; Wong, 2005). The context of curriculum change provides a good opportunity to examine the teaching and learning process in Chinese language classes from the SRL perspective and introducing SRL-based instruction to Chinese teachers.

Although Western studies have clearly demonstrated the positive effects of SRL on learning, it should not be assumed that the SRL model can be applied without operational modifications in the Chinese context, given the very different values and socialization processes in CHC. Since most of the previous Chinese studies have uncritically adopted the Western developed SRL framework and mainly relied on survey methods to measure Chinese students' SRL, the potential effects of cultural and contextual factors on teachers' instruction and students' self-regulatory processes have not yet been explored. Against this background, a series of studies were conducted in Chinese language classes using quantitative and qualitative methods. These studies sought to answer two major questions. The first question aimed to find out what specific instructional features facilitated and inhibited Chinese students' SRL development. The second question aimed to understand how Chinese teachers perceived and implemented SRL-based instruction and the affecting factors behind it.

5   Pilot Study and Initial Findings

A pilot study was conducted in the academic year of 2008/2009 to validate the measuring instruments and initially explore the possibility of incorporating SRL-based instruction in Chinese language classes. A Band 2 school[1]

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[1] Under the Secondary School Place Allocation system in Hong Kong, all secondary schools can generally be categorized into Band 1, 2, and 3 that mainly admit the highest, middle, and lowest 33.3% of students, respectively.

in Hong Kong was invited to join a one-year collaborative project with the researcher. After discussing with the Chinese language teachers in this school, they suggested implementing the school-based programme in Secondary 3. A SRL-based reading instruction program was jointly designed by the researcher and six Chinese language teachers from this school based on a "TSAE framework" (Instructional **T**ask, instrumental **S**upport, **A**uthority structure, and **E**valuation practices) derived from the four major principles of SRL. Then the teachers implemented the program with 197 Secondary 3 students.

A detailed description of the research design and findings of this pilot study were reported in Lau (2011). In brief, the findings of pre- and post-test comparison using repeated measures indicated students significantly improved their intrinsic motivation, increased their use of self-regulated and comprehension strategies, and obtained better reading performance after the SRL-based program. From the interview data, both teachers and students showed positive attitudes towards this new instructional approach. Teachers were observed to make changes to their reading instruction by incorporating most of the principles of SRL-based instruction, such as adding strategy instruction in their daily teaching, and increasing the use of authentic teaching materials, open tasks and group activities. However, a common phenomenon observed in most of the lessons was the dominating role of the teacher in the classroom. From the interview and observation data, both teachers and students regarded teacher control as a necessary component in Chinese classes.

6   Teaching and Learning in Current Chinese Language Classes

After the pilot study, the collaborative project was expanded to six secondary schools in the academic year of 2009/2010. To ensure a representative sample, the participating schools consisted of equal numbers of schools from different bandings. After discussing with the heads of Chinese language panel in these schools, most of them preferred to implement the school-based programme in Secondary 4. The project involved 31 Chinese language teachers and 1,121 Secondary 4 students. At the beginning of the project, pre-test data, including students' reading performance, their self-reported strategy use, motivation and perception of reading instruction, teachers' perception of reading instruction and current instructional practices, was collected by various quantitative and qualitative measures. The focus of the pre-test study was to explore the characteristics of Hong Kong students and the current instructional practices in Chinese language classes from the perspective of SRL. It aimed to clarify whether the

stereotyped impressions of CHC learners and classroom contexts were still valid after curriculum reform and whether the proposed relations between classroom contexts and students' SRL in the Western SRL model could also be applied in a Chinese educational context.

A detailed description of the research design and findings of the pre-test study were reported in Lau (2012). According to the findings of questionnaires, interviews and classroom observations, students involved in this study had low self-confidence and tended to rely on their teachers' guidance rather than self-directing their own learning process. These findings were consistent with the impression that Chinese students are passive learners. At the same time, however, students were found to possess certain characteristics of self-regulated learners, including a moderate level of comprehension and self-regulatory strategy use, a low level of negative reading behaviors, and a high level of intrinsic motivation. Using the four major principles "TSAE" of SRL instruction to examine teachers' and students' perceptions of current reading instruction in their Chinese language classes, both perceived a moderate to high degree of "T" and "S" but a relatively low degree of "A" and "E" in their classes. Classroom observations revealed that the high degree of instrumental support was mainly from teacher support. In line with the curriculum reform, some teachers put more emphasis on skill-based instruction, adopted interesting learning materials and activities, and used formative assessments in their teaching. However, teachers continued to assume great responsibility and authority in class. Cooperative learning, independent reading activities, and self- or peer-evaluation were rare in most of the observed classes.

The relation between Chinese reading instruction and students' SRL and reading performance was examined using path analysis and then qualitative analysis on interview and observational data was used to triangulate and supplement the quantitative findings. The findings of path analysis were generally consistent with previous Western studies, indicating that SRL-based instruction was positively related to students' use of comprehension and self-regulatory strategies, intrinsic motivation and reading performance, and negatively related to their negative reading behaviors. A careful examination of the impacts of different principles of SRL-based instruction, however, suggested some of the principles should be more beneficial to Chinese students' learning than others. Among the four major principles of SRL-based instruction, instrumental support showed the strongest positive relation with students' strategy use, intrinsic motivation and reading performance. In contrast, although student autonomy had a positive relation with students' strategy use, it was positively related to their negative reading behaviors and negatively related to their

reading performance. Classroom observations and student interviews indicated that teacher support was crucial for establishing students' learning foundation and maintaining their self-confidence and intrinsic motivation when they faced difficulties or progressed to high-level learning. Without sufficient teacher scaffolding, a high degree of autonomy was found to result in poor student performance. Indeed, both teachers and students felt satisfied with the authority structure of their class. Students asked for more participation rather than a more leading role in their learning.

7 Chinese Teachers' Perceptions and Implementation of SRL-Based Instruction

A major purpose of the collaborative project was to explore the feasibility of incorporating SRL-based instruction into the daily teaching of Chinese language classes. After the pre-test study, the research focus was on investigating what changes teachers had made to their instructional practices, how their perceptions changed during the collaborative project, and what factors affected these changes. To familiarize teachers with the principles of SRL-based instruction, the TSAE framework with concrete examples was introduced to all participating teachers in a series of teacher professional training workshops at the beginning of the project. Teachers from each school could select one to two modules to design their school-based SRL program. During the project, the researcher worked closely with teachers in regular collaborative meetings to support their instructional design and evaluation. Multiple measures, including classroom observation, teacher and student interviews, and reading instruction inventory, were adopted to assess to what extent teachers applied the principles of SRL in their teaching and how student learning was affected.

A detailed description of the research design and findings of the collaborative project were reported in Lau (2013). Although the concept of SRL was new to most of the participating teachers, they generally had positive attitudes towards this innovative instructional approach before and after the project. Most of them were satisfied with the effectiveness of SRL-based instruction on enhancing their students' reading ability and motivation. Pre- and post-test comparisons indicated both teachers and students perceived a higher degree of SRL-based instruction in their Chinese language classes and students improved their strategy use, motivation and reading performance at the end of the project. Specifically, teachers reported changes on "T," "S" and "A" whereas students only perceived changes on "T" and "S." Data from interviews and classroom observations revealed that changes mainly

occurred in the nature of instructional tasks and teacher support. Instead of using teacher-centered lecturing to explain the content of textbooks to students, more teachers attempted to integrate strategy instruction into their original text-based instruction, increased the use of interesting reading and multimedia materials to supplement textbooks, and designed various types of activities and discussions to develop students' independent reading skills when they implemented their school-based program. Concerning the principles of "A" and "E," most of the teachers only increased the opportunities for student participation but student-directed activities and evaluation were seldom observed in most of the classes.

Summarizing the findings from different data sources, several factors affecting teachers' acceptance and implementation of SRL-based instruction, including cultural, contextual, student and teacher factors, were identified. In brief, curriculum reform and support from the researcher and school administrators were important factors for motivating teachers to experiment with innovative instruction and facilitating their continued implementation. Due to the influences of traditional Confucian culture and the previous curriculum, it was easier for teachers to incorporate the principles of "T" and "S" that emphasized the role of the teacher in instructional planning and providing support to students' learning rather than those of "A" and "E" that emphasized the leading role of students in monitoring and evaluating their own learning. Students' ability and attitudes are also essential for SRL. Teachers with weak and passive students admitted that they had more reservations about increasing the degree of student participation and autonomy in their classes. Lastly, while all teachers inevitably faced various constraints when implementing their school-based program, those who were more enthusiastic about professional development were found to be more willing to try most of the principles of SRL-based instruction.

8 Possibility of Implementing SRL-Based Instruction in Chinese Classrooms

SRL has been widely recognized as an essential element of successful learning in Western studies (Perry et al., 2004; Pintrich & Zusho, 2002). Due to the emphasis of teacher authority and knowledge transmission in traditional Confucian culture (Gow et al., 1996; Ho, 1994, 2009; Ho et al., 2001), it is unclear whether SRL is accepted by and suitable for Chinese teachers and students. Findings of the studies reported above provided useful information for discussing the applicability of SRL in Chinese contexts. Consistent with the view that classroom environment is

important in shaping students' approaches to SRL (Butler, 2002; Lombaerts et al., 2009; Perry, 1998; Pintrich et al., 1994; Turner, 1995; Wolters & Pintrich, 1998), a high-SRL instructional environment was found to be positively related to Chinese students' strategy use, reading motivation, and reading performance. Similar to those studies conducted in Western classrooms (Hilden & Pressley, 2007; Perry & VandeKamp, 2000; Zimmerman, 2001), the students that participated in the pilot and main study also made substantial improvements in their strategy use, motivation and reading performance after receiving SRL-based instruction in their Chinese language classes. These findings provide initial support for the possibility of implementing this new instructional approach in Hong Kong. Based on their experience with the collaborative project, teachers' positive perception of SRL-based instruction and high tendency to sustain its implementation after the project were due mainly to their satisfaction with its effectiveness on enhancing students' reading ability and motivation. This suggests that whether an instruction is rooted in Western theories or traditional Confucian culture, it is possible to be accepted by teachers as long as it is beneficial to their students' learning (Avalos, 2011; Gersten & Dimino, 2001; Gersten, Vaughn, Deshler, & Schiller, 1997).

Besides the universal positive impacts of SRL-based instruction on learning, contextual and cultural factors are important when discussing the feasibility of applying the principles of SRL-based instruction in non-Western educational contexts. At the policy level, the traditional teaching and learning approach in many CHC societies are now facing challenges from curriculum reform. Since the end of the 21st century, many innovative instructional theories have been introduced to Hong Kong teachers with the curriculum reform. From the findings of the studies reported above, the congruency between SRL-based instruction and the new Chinese language curriculum was the main reason for the schools to participate in the collaborative project. Since the emphasis of the current curriculum (HKCDC, 2001b) and public examination (HKEAA, 2005) has been changed from knowledge memorization to independent language skills, many teachers find they can no longer rely on traditional didactic instruction. Thus, the model of SRL-based instruction provides a well-established framework for teachers to restructure their instructional practices to a more effective way of developing their students' learning ability. At the school level, more and more schools in Hong Kong are willing to increase resources and participate in collaborative projects to facilitate teachers' implementation of the new curriculum. Among the six participating schools, it was found that teachers who received more administrative support and had more autonomy to adjust their curriculum

were more able to fully implement their SRL program. These findings were consistent with previous studies on teacher change, suggesting that teachers tend to change their original instructional practices when the innovation is congruent with the current educational policy and they are allowed to experiment with the innovation in a safe and supportive working environment (Inos & Quigley, 1995; Pressley & El-Dinary, 1997).

Although the CHC instructional approach is regarded as antithetical to SRL, some of its features should help Chinese teachers adapt to SRL-based instruction when they first try this new instructional approach. As pointed out before, Chinese teachers have been used to assuming great responsibility and authority in class. Chinese students are also used to relying heavily on the guidance of their teacher (Gow et al., 1996; Ho, 1994, 2009; Ho et al., 2001). Findings of the studies reported above indicated that teachers were more receptive to the principles of "T" and "S" than "A" and "E." The principles of "T" and "S" emphasize the use of strategy instruction and open tasks with various forms of guidance and support to develop students' reading ability and motivation (Lombaerts et al., 2009; Perry, 1998; Perry et al., 2002; Turner, 1995). Although the nature of the task is different from traditional knowledge-based instruction, its emphasis on the supportive role of the teacher is consistent with current practices in Chinese language classes. Therefore, when the researcher provided sufficient training and technical support to the teachers, they were easily able to integrate the principles of "T" and "S" into their school-based program. Indeed, the findings of both quantitative and qualitative data revealed that teacher support was the most important instructional factor that facilitates Chinese students' learning. It suggests that it is not only easier for Chinese teachers to accept those principles with more emphasis on the role of the teacher through combinations of old and new instructional practices, Chinese students also learn better with a certain degree of teacher support and guidance rather than in a highly self-directed learning environment.

9 Challenges of Incorporating SRL-Based Instruction in Chinese Classrooms

Based on the findings of the studies reported above, challenges from cultural, contextual and personal factors are identified and discussed as follows.

Compared with the principles of "T" and "S," the principles of "A" and "E" are more difficult to apply in Chinese classrooms. Although the new curriculum has been implemented in Hong Kong for over ten years, the degree of student autonomy and self-directed evaluation in most

of the classes remains low. Little changes were observed in these two dimensions of teachers' instruction even after they had received substantial professional training and support in the collaborative project. Contrary to the postulation of the SRL theory, a high degree of student autonomy was found to be associated with more negative reading behaviors and poorer reading performance. As pointed out in the last section, most of the Chinese teachers and students are accustomed to their traditional role as "authoritative leader" and "passive recipient." From the perspective of teachers, they have great reservations about giving students a high degree of freedom because it challenges their entrenched epistemologies of classroom authority structure. From the perspective of students, they also do not have enough confidence to learn independently without teacher guidance. These findings suggest that at the initial stage of introducing SRL-based instruction to Chinese classes, an appropriate use of teacher-led instruction to support students' development of learning skills and motivation should be more suitable and easily accepted by Chinese teachers and students than a dramatic change to a highly student-directed learning environment. As observed by some Chinese researchers, teacher-directed instruction should not be viewed as negative in Chinese classrooms. Effective Chinese teachers are able to organize the lesson to engage their students in active learning under their full control (Ho, 2001; Mok et al., 2001). For example, in a Chinese language class observed by Mok et al. (2001), while the teacher maintained a high degree of control on the focus of teaching and each teaching step throughout the whole lesson, he successfully engaged his students actively in enacting the story and guided them to construct a deep understanding of the story through their enactment. This kind of teacher support is consistent with the concept of SRL-based instruction. However, it should be noted that giving students autonomy to control and evaluate their own learning is an essential step in developing them from other-regulation to self-regulation (Perry, 1998; Schunk & Zimmermen, 1997; Wolters & Pintrich, 1998). After students have developed certain independent learning skills, it is a challenge for Chinese teachers to adjust their role and increase the proportion of student-directed activities in order to develop their students into real self-regulated learners.

Concerning the contextual factors, Hong Kong is well known to be a highly competitive and exam-oriented society. Although SRL is advocated in curriculum reform, preparing students for public examinations is placed in the highest priority in the minds of many school leaders and teachers. Under the examination pressure, school curriculum is generally very packed and drilling is inevitably adopted as a major form of instruction in most of the classes in Hong Kong (Biggs, 1996; Kwok, 2004;

Morrison, 2006; Pong & Chow, 2002). Such a learning environment is not favorable for promoting SRL. To develop into self-regulated learners, students must take time to sharpen their learning skills and establish their confidence through trial and error in diversified learning activities (Pintrich & Zusho, 2002; Schunk & Zimmermen, 1997). After adding open tasks and student-centered activities in their school-based SRL program, all participating schools in the collaborative project found it took much longer than their regular modules. This created a certain pressure for teachers in their tight teaching schedule. The teachers' workload was also increased because the instructional design of SRL-based instruction was more demanding than their general practices. With the support provided by the researcher and school administrators, it was relatively easy for schools and teachers to experience SRL-based instruction in a trial, short-term collaborative project. However, it would be a great challenge for them to implement SRL-based instruction throughout their entire curriculum.

The personal background of teachers and students can be a facilitating or inhibiting factor for the implementation of SRL-based instruction. Obvious variations were observed among different classes in the collaborative project. Consistent with previous studies on teacher change, teachers' pre-existing beliefs and instructional practices (Fang, 1996; Richardson & Placier, 2001) and their aspiration for professional development (Gregoire, 2003; Hargreaves & Fullan, 1992) were found to be critical factors affecting their implementation of an innovative instruction. In the collaborative project, two types of teachers were more enthusiastic to implement SRL-based instruction: those who had an obvious preference for and had already adopted some forms of student-centered pedagogy, and young teachers who were eager to improve their professional knowledge and teaching skills through participating in the project. For those teachers who had adopted teacher-centered instruction for many years or did not have a clear concept of SRL, they only implemented their school-based program on a surface level without real changes on their original teaching. In addition, SRL is not only challenging for teachers but also for students. To become self-regulated learners, students have to participate actively and engage in higher-level thinking during their learning process (Perry et al., 2002; Schunk & Zimmerman, 1997; Turner, 1995). This is especially difficult for students with low ability and poor motivation. Teachers from schools of low bandings reflected that their students had difficulty in using strategies independently and could not participate actively in cooperative tasks. Therefore, how to enhance teachers' professional development and students' learning ability is another challenge if SRL-based instruction is widely promoted to all teachers and students in Hong Kong.

10   Conclusions and Suggestions

In conclusion, in the context of curriculum reform in Hong Kong, the author conducted a series of studies to examine the applicability of the SRL theory in this CHC society and to explore the possibility of incorporating SRL-based instruction into the teaching of Chinese language, which is generally regarded as a typical CHC influenced subject. When discussing the applicability of the SRL theory in non-Western cultural contexts, McInercy (2008) has suggested that SRL should be related to positive learning outcomes regardless of the cultural background of the learners but certain cultural and educational settings may make it more difficult for some self-regulatory processes to be developed. Findings of these studies echoed with the postulation of McInercy that SRL-based instruction should also be beneficial to Chinese students but due to the cultural and contextual background of Hong Kong, principles that emphasize the supportive role of teachers are easier to implement in Chinese classes and produce more positive effects on Chinese students' learning than those that put more emphasis on student autonomy.

In response to the challenges of implementing SRL-based instruction in Hong Kong classrooms, it is suggested that a long-term collaboration between researchers and front-line teachers would be a promising approach to support a gradual change to teaching and learning in Chinese classes. It is reasonable for teachers to start with some principles that they find to be more consistent with their original beliefs and practices when they try a new form of instruction. For Chinese teachers who have adopted the traditional teacher-centered instruction for a long time, they need more time to take the big step toward a more student-centered instruction. Through long-term collaboration, teachers can develop a deeper understanding of the principles of SRL-based instruction and make continuous improvements in applying different principles more effectively by becoming involved in on-going professional training and collaborative dialogues with external experts (Gregoire, 2003; Hilden & Pressley, 2007; Perry & VandeKamp, 2000; Randi, 2004). Chinese students who are used to relying heavily on their teachers also need more time to learn how to learn independently. At the initial stage of SRL-based instruction, it is important to establish the students' knowledge base and their ability to use different learning strategies effectively by providing them sufficient teacher support. As they progress into more competent learners, teachers should gradually release the responsibility of learning to students by adjusting the proportion of teacher-directed and student-directed activities. Weak students may need more time and scaffolding in this process. Moreover, under the constraints

of the packed curriculum and examination pressure in Hong Kong, teachers may only be able to increase the proportion of SRL-based instruction at a slow pace that may take a longer time to see substantial improvement in students' learning. Therefore, it is important for the Education Bureau, school administrators, and researchers to establish a safe and supportive environment for both teachers and students in this long-term changing process (Inos & Quigley, 1995; Gersten & Dimino, 2001; Pressley & El-Dinary, 1997).

Regarding the direction of future research, a more rigorous research design is needed to confirm the effectiveness of SRL-based instruction on Chinese students' learning. In order to encourage teachers to try SRL-based instruction in their daily teaching, the research design of the pilot study and collaborative project was not rigid due to the many practical constraints in authentic school contexts. No control group was involved in the studies. Therefore, findings of these studies should be cross-replicated in future studies using a larger sample and control groups.

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