Abstract: Promoting students’ independence in vocabulary learning has been one of the instructional goals in language education. Based on the Self-Regulated Learning (SRL) theory from social cognitive learning perspective, learning strategies and motivational beliefs (e.g., self-efficacy, task interest) are the key interrelated factors of SRL, which are crucial for learners’ academic performance. This study investigated learners’ needs in terms of cognitive and metacognitive strategy use as well as their perceptions and knowledge in vocabulary learning. Both qualitative and quantitative research techniques were applied to collect data with 38 pre-university Chinese EFL learners studying at University of Malaya. The findings revealed that the students possessed insufficient knowledge of high-frequency words and were deficient in using cognitive deep processing strategies (e.g., semantic grouping, word structure) and metacognitive self-regulatory strategies (e.g., self-initiation, goal-setting, planning, self-monitoring and self-evaluation); besides, it indicated that learners’ low self-efficacy and motivation might be due to the lack of strategy knowledge, which in turn affect their strategy performance. The study suggests that there is a pressing need to enhance learners’ self-regulation in learning vocabulary through explicit strategy instruction which emphasizes cognitive, metacognitive and motivational aspects of learning.

Keywords: self-regulated learning; vocabulary learning strategies; metacognitive self-regulatory strategies; self-efficacy; passive vocabulary knowledge.

INTRODUCTION
Developing life-long learning skills, that is, learning how to learn has been a key concern in education. Along with this domain of research, Self-Regulated Learning (SRL), a multidimensional construct which involves cognitive, metacognitive, motivational, and social aspects of learning, has been theoretically well-established. It has consistently proved that students’ self-regulatory abilities in learning are crucial for their academic achievement (Zimmerman & Martinez, 1986). Based on cognitive learning theory, self-efficacy and strategy use are clarified as two key factors to achieve self-regulation in academic learning, and it further explains their relationship with students’ motivation and academic achievement in school (Zimmerman, 1989). Zimmerman (1989) clarified that in order to identify students’ strategies or actions to be self-regulated, one must know their academic goals and their perceptions of efficacy. In other words, learning strategies are involved in the self-regulated learning process, and students who are self-regulated use specified cognitive, motivational, and behavioural strategies to achieve academic goals on the basis of their self-efficacy, namely, perceptions of their capabilities in performing a
skill or a task (Zimmerman, 1995). In the field of vocabulary acquisition in language education, to develop learners’ capability to build up their vocabulary independently and strategically has been one of the major instructional goals (Graves & Fink, 2007). A number of researchers (Nation, 2001; Schmitt, 2000) have strongly advocated that Vocabulary Learning Strategies (VLS) play a vital role in improving students’ vocabulary acquisition and preparing them to be independent and strategic word learners. However, most studies on VLS focus on cognitive strategy use, while there has been a lack of concern for metacognitive (e.g., goal-setting) and motivational factors (e.g., self-efficacy) in vocabulary learning (Rasekh & Ranjbary, 2003). Thus, with a theoretical basis of SRL from social cognitive learning perspective, this study attempts to investigate strategy use, motivational beliefs and knowledge in vocabulary learning among a group of Chinese EFL learners studying in Malaysia. The following provides a brief overview of the context of the study.

Context of the study
Recently, the number of students from the People’s Republic of China (PRC) pursuing their studies at tertiary level in Malaysia has been increasing. The variety and richness of the English environment in Malaysia, in which English is used as Second Language (ESL) rather than Foreign Language (EFL) in the Chinese context, might provide them with more exposure to English learning. However, at the same time, the variety of academic tasks performed in English in a new learning context is certainly demanding for these Chinese learners, especially the low-achieving learners. They not only need to adjust quickly to a new language learning environment but also need good self-regulation in confronting learning challenges in terms of English language competency as well as mastery of subject content knowledge. With the big linguistic difference between Chinese and English vocabulary has been considered as one of the greatest difficulties for Chinese EFL learners. Given the large size of the English lexicon, it is not possible to teach all the required vocabulary within the limited instructional time (Schmitt, 2000), and students’ capability in effectively managing their vocabulary learning appears most important. Thus, it is necessary to investigate the Chinese EFL learners’ use of strategies as well as their current vocabulary knowledge and motivational beliefs in vocabulary learning. With a theoretical basis of SRL from social cognitive learning perspective, the study has stemmed from the following concerns.

1. What are the students' current level of passive vocabulary knowledge?
2. What are the vocabulary learning strategies used by the students?
3. What are the metacognitive control strategies used by the students in learning vocabulary?
4. What are the students’ perceptions of vocabulary learning?

METHOD
In terms of language learning, needs are identified as “a linguistic deficiency” or a gap between “what a learner can presently do in a language and what he or she should be able to do” (Richards, 2001, p. 54). For the current study, learners’ needs
in terms of cognitive and metacognitive strategy use as well as their vocabulary knowledge and motivational beliefs and perception in vocabulary learning are investigated.

Participants
The participants for this study are 38 Chinese EFL learners aged from 20 to 25. They are required to take English proficiency course in order to further their degree study at University of Malaysia.

Instruments
First, a vocabulary level test developed by Schmitt, Schmitt and Clapham (2001) was conducted to the participants in order to identify whether they have acquired sufficient high frequency words for their academic study. Second, an adapted questionnaire developed by Gu and Johnson (1996) was used to study the vocabulary learning strategies used by the students. Before the questionnaire was delivered to the target group, a pilot test was conducted with 52 Chinese EFL learners who are studying at pre-university English course to identify the reliability level of question items. The results of cronbach’s Alpha reliability test suggest the constructs have acceptable internal consistency (above 0.7), particular for the construct of metacognitive strategies and activation strategy with smaller number of items (above 0.6). Third, an interview in a questionnaire form was conducted with 14 out of 38 participants who voluntarily participated to investigate the students’ metacognitive strategy use and their motivational beliefs and perceptions towards vocabulary learning. Some interview questions on motivational and metacognitive dimensions were adapted from the general interview questions developed by Gu (2003) and all the interview questions were verified by two English teachers and two Chinese EFL learners. After collecting the written responses towards the question items, a follow-up clarification was done to identify (1) the written statements which were short and not clear; (2) the answer which was not really relevant to the questions, and (3) the contradictions in the answers.

DATA ANALYSIS AND FINDINGS
Students’ current vocabulary knowledge
The results of vocabulary levels test to assess students’ passive vocabulary knowledge are presented in the Table 1. According to Nation (2001), students should acquire the most number of high frequency words at the 2000-word level and the knowledge of 3000-word level for reading unsimplified academic texts. Besides, it has been suggested by Nation (I. S. P. Nation, personal communication, Dec 11, 2010) that a student scoring 27 out of 30 is considered to have acquired the minimal control of the vocabulary at that level and to be ready to move to the next level. The results of the students in this study show that the average score is 16 out of 30 at the 2000-word level. It means 54% of the vocabulary at the 2000-word level was known by the learners. The average score is 8 out of 30 at the 3000-word level with learners providing correct answers on only 26% of the items. As for their command of academic vocabulary, the mean score was 5 out of 30. The students’ performance
at the 5000-level was dismal with a mean of 2.25 and at the 10000-word level, the mean was less than 0.5.

Table 2.
<table>
<thead>
<tr>
<th>Levels</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>16.14</td>
<td>7.21</td>
</tr>
<tr>
<td>3000</td>
<td>7.93</td>
<td>6.55</td>
</tr>
<tr>
<td>Academic vocabulary</td>
<td>5</td>
<td>5.35</td>
</tr>
<tr>
<td>5000</td>
<td>2.25</td>
<td>2.93</td>
</tr>
<tr>
<td>10000</td>
<td>0.36</td>
<td>1.02</td>
</tr>
</tbody>
</table>

Thus, the needs analysis has provided evidence that almost all the students need to improve their basic vocabulary knowledge as well as academic vocabulary for their course of studies at university.

Students’ use of vocabulary learning strategies

The results of students’ strategy use indicated that the least preferred strategies for the learners were self-initiation (M = 2.66, SD = 0.39); extended dictionary strategy use (M = 2.89, SD = 0.78), word structure (M = 2.95, SD = 0.73) and semantic encoding (M = 2.85, SD = 0.82); while the most popular strategies were dictionary strategies for comprehension (M = 3.86, SD = 0.69), meaning-oriented note taking strategies (M = 3.66, SD = 0.73), and oral repetition (M = 3.47, SD = 0.78). According to the depth of processing theory (Craik & Tulving, 1975), shallow processing strategies are those requiring less mental processes. The findings indicated that relative shallow processing strategies, such as repetition strategies, dictionary use mainly for comprehension purpose were dominant among Chinese learners. In contrast, deep processing strategies, such as semantic encoding and word structure advocated in the literature seemed to be less preferred by the learners. It was also very apparent that the self-initiation strategy, which indicated learners’ willingness to take control of their learning, was the least used strategy by the students.

Table 2.
<table>
<thead>
<tr>
<th>Categories</th>
<th>Strategies</th>
<th>Mean</th>
<th>SD</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dictionary strategies</td>
<td>Dictionary strategies for comprehension</td>
<td>3.86</td>
<td>.69</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Dictionary look-up strategies</td>
<td>3.49</td>
<td>.88</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Extended dictionary strategies</td>
<td>2.89</td>
<td>.78</td>
<td>17</td>
</tr>
<tr>
<td>Notetaking strategies</td>
<td>Meaning-oriented note taking strategies</td>
<td>3.66</td>
<td>.73</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Usage-oriented note taking strategies</td>
<td>3.43</td>
<td>.81</td>
<td>5</td>
</tr>
<tr>
<td>Memory rehearsal</td>
<td>Oral repetition</td>
<td>3.47</td>
<td>.78</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Visual repetition</td>
<td>3.24</td>
<td>.77</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Using word list</td>
<td>3.02</td>
<td>.78</td>
<td>6</td>
</tr>
<tr>
<td>Guessing</td>
<td>Guessing using background</td>
<td>3.41</td>
<td>.82</td>
<td>11</td>
</tr>
</tbody>
</table>
Students’ use of metacognitive control strategies

Metacognitive control strategies focus on goal-setting, planning, self-monitoring and self-evaluation strategies. The results for each aspect are summarized below.

Goal-Setting and Planning

The questionnaire responses of 11 students indicated that they did not set a goal for their vocabulary learning. During the follow-up clarification, most of the participants stated that they usually looked up the dictionary when encountering a new word or before memorizing a new word, while only three participants stated that they set learning goals and planned vocabulary learning, e.g., “I try to remember 20-30 words per day” (p4.2.2.1); “I repeatedly memorizing words every day” (p14.2.2.1). The majority of respondents also indicated that they did not purposely try new strategies. Only three students clearly indicated that they purposely used strategies to learn vocabulary, e.g., “learn English vocabulary from magazines” (p4.2.2.3). Only one student mentioned that he tried memory encoding strategies, such as “imaginary word association” or “the key word method” (p11.2.2.3). “the sound of dimple is like ‘din po’, so just imagine your cheek is ‘din po’, it becomes a hole, that is jiu wo” (p11.2.2.3) It is confirmed with the quantitative data that virtual encoding was less frequently used by the students. Also, strategies such as reviewing, grouping, and word parts were not reported by the participants. Goal setting and planning are closely related concepts in SRL. The responses given by the participants about goal setting and planning for vocabulary learning were quite vague and general.

Monitoring Strategies

All but one of the 14 students stated that they did not keep record of their progress in vocabulary learning. Moreover, referring to the interview question on monitoring strategy use while reading, six respondents stated that they looked up the dictionary when they encountered a difficult word while reading. Some of them explained that they usually guessed the meaning first, before using the dictionary to confirm, e.g., “I think guessing the word first, and then using dictionary to check if your guess is right or wrong. Then you know the meaning of the word.” (p13.2.2.5). The results of the strategy survey show that students most frequently used the dictionary to help them with reading comprehension purposes, that is, to look up the meaning of a word as the need arose rather than using the dictionary as a resource to exploit the
information about a word so as to expand their vocabulary knowledge. Besides activities, such as regular review and using a notebook to record word information, were not reported by most respondents.

Self-Evaluation

The responses of 10 students indicate that they were unsure of which words or expressions were important to learn. These are typical responses: “I don’t know which words are worth remembering. I just try to remember all the words I see” (p3.2.2.6); “just feelings, sometimes, I don’t know.” (p12.2.2.6). In response to the question “What do you do when a strategy doesn’t work for you?”, seven students indicated they would “try to find better strategies”; two students would “try it again and see if it works”; and only one student indicated he would “fall back on your own strategy”. Only one student indicated that he would “abandon it”. As for evaluating their own vocabulary, ten students stated that they did not evaluate their vocabulary. Besides, the evaluation methods stated by the other students were very general, such as, “when reading an article, I notice how much vocabulary I could understand”. (p7.2.2.8). None of the respondents stated they used self-check or self-test in their vocabulary learning.

Perceptions of vocabulary learning

Eight students believed that it was hard to learn English words, and the biggest difficulty they encountered in learning English was vocabulary. These expressions of the students speak volumes about their attitude to vocabulary learning: “words! I don’t like words, and lots of words I don’t know!” (p11.2.2.1); “most difficulties are using and remembering word” (p1.2.2.1). Another four students claimed that they had difficulties in listening, speaking, and writing, and how to use vocabulary was merely one of the difficulties. Furthermore, nine respondents stated that they felt they were not good at learning vocabulary, while the other five students stated that they were capable of learning vocabulary. This indicated that the majority of respondents perceived themselves to be not very capable of learning vocabulary. The difficulties confronting learners might have lowered their sense of self-efficacy in vocabulary learning, and this was likely related to their lack of training in how to learn vocabulary effectively. With regard to interest and motivation in vocabulary learning, out of ten students who expressed interest in learning English vocabulary, only one student expressed keen interest in learning English vocabulary. The other four students stated that they were not interested at all. In fact, nine students stated that they had low motivation in learning vocabulary; and one student stated that he was not motivated at all. Only four students expressed motivation in learning vocabulary. In the follow-up interview, most of the students recognized the importance of vocabulary in their language learning and showed some interest in learning it. However, they confessed that from experience, they considered learning vocabulary as a boring memorizing task; thus, motivation in learning words was low.
DISCUSSION AND CONCLUSION

The purpose of the study was to examine (a) the students' current level of passive vocabulary knowledge; (b) use of vocabulary learning strategies; (c) metacognitive control strategy use; and (d) students' perceptions toward vocabulary learning. First, the results revealed that the current passive vocabulary knowledge level of the students obviously was below the threshold level for academic study as suggested in the literature (Nation, 2001). It indicated that there was a pressing need to enlarge students' vocabulary knowledge so as to prepare them for university study. Second, the findings on the students' use of vocabulary learning strategies indicated that a variety of vocabulary strategy use was lacking among the learners, and that low processing strategies, such as dictionary strategy for comprehension, meaning-oriented note taking, and repetition were dominant among the learners, while strategies suggested in the literature such as, word structure, extended dictionary strategies and semantic encoding are less preferred by the learners. Furthermore, the sharp difference between dictionary use for comprehension purposes and for extended purposes indicated limited use of the dictionary among the participants. Fan's study with a group of Chinese Hong Kong EFL learners (2000) also found that information given about a word (i.e., collocation, pronunciation, frequency, appropriateness) tended to be ignored by the students when looking up a new word in a dictionary. Furthermore, the difference between meaning-oriented note taking strategies and usage-oriented note taking strategies also shows that students tended to focus on the form and meaning of a word rather than the usage of a word in a context. This was also found in a study done by Tang (2001). From his observations in Chinese college English classrooms, he found that upon learning a new word, the students merely stored its meaning in memory, and made no attempt to use it actively. It was noteworthy that only one learner, during the interview, reported using the key word method. The studies by Fan (2003) and Gu and Johnson (1996) with Chinese students and Schmitt (1997) with Japanese students also indicated the use of key word method was less preferred. As Nyikos and Fan (2007) noted, the key word method is more suitable when L1 and L2 are related in terms of both pronunciation and writing system. Third, metacognitive control learning strategies (i.e., goal-setting, planning, self-monitoring and evaluation) were also less used by the learners. This resonates with the findings on metacognitive strategy training by Zhao (2009) who found a lack of metacognitive strategy use in vocabulary learning among Chinese EFL learners. It is worthwhile to note that the majority of the students were not aware of which words are important to learn, and they had difficulties in identifying high frequency words; moreover, the words they did not know were considered as equally important. It might indicate that learners were lacking in knowledge and use of strategies for vocabulary learning. Fourth, though the majority of learners recognized the importance of vocabulary in language acquisition, their perception of capability in learning vocabulary (i.e., self-efficacy) was low. This could be due to the lack of knowledge and skills in vocabulary learning, which in turn could have affected their strategy performance. Besides, it is interesting to note that though most participants were interested in learning vocabulary, they had low motivation. This could indicate the students were aware of the importance of vocabulary leaning, but were not sure how to learn vocabulary
effectively. The findings of the study thus point to the need for learners to engage in more cognitive vocabulary learning strategies and to enhance their metacognitive awareness and control of strategy use so as to improve their perception (i.e., self-efficacy) and motivation in vocabulary learning. Hence, the implication for pedagogy is that VLS should be taught to Chinese EFL learners to increase their strategy use awareness and effective use of strategies in vocabulary learning.

REFERENCES


