Test-Taking Processes for Banked Cloze Tests: Implications for Vocabulary Acquisition

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1. Introduction

A cloze test is usually a paragraph or more in length with certain words or part of words deleted. As a widely used testing device, its popularity can be witnessed in its appearance in the fields of language testing and teaching. A banked cloze test, being a new format of cloze test, has different features from other classical cloze tests. In a banked cloze test, ten words are deleted from a text and are grouped in a bank together with five distracters. Each word in the bank is identified by a letter. Testees are required to select the appropriate ones from the bank and put the corresponding letters into the blank.

In the year of 2006, the banked cloze test was employed as a new part of reading comprehension in the innovated College English Test 4 (CET-4), which is one of the most pervasive and authoritative standardized tests in China. However, since it was adopted it has been the one where students easily fail to get marks. Therefore it is of great necessity to investigate test-taking processes for banked cloze tests, which can help shed light on how the testees deal with the banked cloze items, and thus contribute to their performance improvement on this test form and give an implication for more appropriate ways to acquire vocabulary.

The banked cloze test involves the measurement of testees’ reading comprehension ability and vocabulary knowledge in line with the embedded, comprehensive and context-dependent nature of words (Read 2000). However as the introduction of the banked cloze is accompanied by the removal of the Vocabulary and Structure part which is in context-independent multiple-choice format presenting words in isolation, it tends to give students a wrong impression that the former is a substitute for the latter, which may further lead to the consequence that students simply spend time unproductively memorizing long list of words together with synonyms or definitions as they used to do in preparation for the old test form. They tend to have highly developed memory strategies, but less developed comprehensive word knowledge for problem-solving. The investigation of the test-taking processes for banked cloze tests can help to reveal the way vocabulary is processed in this test format and thus give an indication of students’ vocabulary acquisition strategies.
Students’ adoption of different acquisition strategies may result in their variation in vocabulary acquisition, while vocabulary difficulties could lead to reading comprehension problems. Therefore it is of interest to explore whether the way students acquire vocabulary exerts influence on reading comprehension processes thus to facilitate or impede reading comprehension ability, and whether there is a correlation between reading processes and vocabulary acquisition strategies.

Greatly inspired by the research done by Gao and Gu (2008) which aims to investigate the test-taking processes for banked cloze tests, the present study continues the line of their research but takes a further step forward to explore the implications of students’ test-taking process for their vocabulary acquisition. This research hopes to generate a shift of focus from decontextualized to more context-related vocabulary acquisition and improve students’ performance in test situation and contribute to the enhanced comprehensive language ability.

1.1 Aim

The present study aims to investigate (1) the types of information utilized and the strategies employed by students to complete banked cloze items; (2) the main strategies students use to acquire vocabulary; and (3) whether there exists any correlation between students’ banked cloze reading processes and the way they acquire vocabulary. Afterwards possible implications for vocabulary acquisition will be speculated on.

1.2 Material and Method

To carry out the investigation, both the participants and research materials were carefully selected. A banked cloze test and two questionnaires, each followed by a brief informal interview, are involved as the main sources of data to be analyzed in this study.

1.2.1 Participants

The participants of the present study are twelve Chinese sophomores majoring in Chinese Medicine at a university in eastern China. They are selected and grouped
from 100 sophomore students of this university according to their scores on the CET-4 taken in December 2009. Another reason why they are chosen is that, as college students, they have been learning English as a second language for more than eight years and their learning styles are comparatively stable. What is more, they are cognitively developed and mature enough to be aware of and self-examine their own learning process and strategies. In order to provide a basis for comparison, the chosen participants were divided into two groups based on their score. To minimize possible influence of gender difference, the distribution of boys and girls was the same with 3 girls and 3 boys in each group. The High Group is the collection of students whose CET-4 score is above 580 while the Low Group is the students with a score below 400. The criterion of score is set in such a way in order to see the distinction between the two groups in terms of English proficiency. Thus, the results of the study may be clearer and more convincing.

1.2.2 The banked cloze test

The banked cloze test (see Appendix 1) used in the present study was chosen from model tests of CET-4 (Dec. 2009). It is the same test format as that in Gao and Gu’s (2008) research. The difference lies in the content and length and the time to finish the test. The chosen passage is about the history and development of rock and roll and has 236 words. The passage is followed by a bank which contains ten correct options and five distracters. The participants are required to restore the deleted words in ten minutes. With respect to Gao and Gu’s research in which no time limit was set, this banked cloze test with time constraint is more likely to reflect the test-taking processes in normal testing situations. It has been established that the selected participants in the present study did not take this banked cloze test before.

1.2.3 Questionnaires

A questionnaire is a good way to access the learner’s point of view, and in this study it is also a convenient way to get information from the chosen participants in China. Two different questionnaires are used in this study to help demonstrate students’ reading processes for the banked cloze test and their vocabulary acquisition strategies.
Questionnaire 1

Questionnaire 1 (see Appendix 2) is used to elicit students’ test-taking processes for the banked cloze test. It contains four information sources and nine strategies students commonly use in the completion of a certain text. The participants are required to choose one or more information sources and strategies they have used in the reading process for each item. Based on Bachman’s (1985) classification of cloze test items and the research of Gao and Gu (2008), the information sources are as follows:

1. Clause level information: the information within the clause
2. Sentence level information: the information outside the clause but within the sentence.
3. Text level information: the information outside the sentence but within the text.
4. Extra-textual level information: the information outside the text instead

The nine strategies are based on the strategies revealed in the research of Feldmann and Stemmer (1987) and the research of Gao and Gu (2008) where twelve strategies were identified in testees’ verbal protocols. In the present study, the purpose of investigating test-taking processes on a banked cloze test was to give a revelation or an implication of students’ vocabulary acquisition strategies. Thus, only the most frequently used strategies reflected in Gao and Gu’s study were employed and slightly modified to help elicit the main tendency of the testees’ test-taking processes in the present study. These nine strategies were grouped into three categories as bottom-up processing strategies, top-down processing strategies and test-wise processing strategies in questionnaire 1 for the testees to choose from. Bottom-up processing strategies include: guess the unknown words; admit failure to understand unknown words; analyze the sentence structure. Top-down processing strategies include: preview the text; evaluate critically the text; predict the meaning of the text. Test-wise processing strategies include: preread the options; use the options to match a blank; guess blindly.

Questionnaire 2

Questionnaire 2 (see Appendix 3) is about the students’ vocabulary acquisition strategies. The listed nine common strategies are the ones that students tend to adopt in their vocabulary acquisition process and are mainly deduced from vocabulary acquisition theories. The suggested nine strategies are placed from the most
contextualized to the most decontextualized. The placement order is based on theories and the researcher’s personal evaluation. The participants are required, according to their own study experience, to rate three most useful and most frequently adopted ones among these strategies. Point 3 should be given to the most useful and 1 to the comparatively least useful one. At the end of this questionnaire, the participants are offered the chance to describe other possible strategies that are not mentioned in the list but are among their own most useful categories of vocabulary acquisition. The supplementary strategies are asked to be included in the rating system.

1.2.4 Interviews

In this study each questionnaire was followed by interviews with the participants. Interviews immediately following questionnaire 1 intend to provide additional and more specific information about the participants’ reading processes for the banked cloze test. This brief informal interview serves as participants’ after-thought explanations of their own behavior of internal cognitive process. Thus, the questions used in the interview may be slightly different for each interviewee as they are mainly based on the participants’ response to questionnaire 1 and their performance on the test. Nonetheless, the questions are mainly about why and how the participants chose certain items in the cloze test. With the prompting of the researcher the interviewees could spontaneously comment on his or her reading process for the previous test and answer the researcher’ questions concerning their choices of information sources and strategies to certain items. The purpose of the interviews immediately following questionnaire 2 was to get more information about participants’ choice of strategies. The questions used are about why they chose certain strategies instead of others.

The interviews were carried out on an individual basis and conducted in the form of computer-accessed personal interviewing. That is, the interviewer i.e. the researcher and one interviewee i.e. one participant sit in front of computer and communicate through the chatting software – QQ. The content of the interviews was recorded for further analysis.

1.2.5 Procedure

The procedure consists of certain sequential steps, which were conducted with the
help of QQ – an instant message (IM) software similar to MSN but more popular among Chinese students to communicate with via the computer.

The first step was the selection of participants, which was settled under the aid of the researcher’s colleague at a university in China. The chosen participants with the CET-4 score of above 580 or below 400 have been taught by the researcher herself. They showed great willingness and support when informed of the objective of the study. The collection of their QQ numbers made it possible for the researcher to communicate directly with the participants.

The second step was to make sure the chosen participants understood the meaning of certain terminologies used in questionnaire 1. The colleague of the researcher gave the participants a rough instruction of certain terminologies that may cause trouble to some participants, with the main focus on the participants’ understanding the linguistic forms without telling them the usage and purpose of the terminologies. This procedure was conducted one week before the participants took the banked cloze test for the purpose that the instruction would not heighten the participants’ awareness of the subsequent test. Furthermore it could help to reduce the chance that the participants were prompted to deliberately adopt certain new strategies in the coming test (though it should not be dismissed that the potential possibility still existed) thus affect or distort their normal pattern of reading process.

The third step was the administration of the survey, which was carried out on an individual basis. No survey information leaked during the time interval of different participants’ personal investigation due to their cooperation and interest in this study. The complete survey for each participant lasted about thirty minutes. The detailed procedure for this step was as follows:

The chosen banked cloze test was delivered on line to each participant to finish in ten minutes. On completion of the test, questionnaire 1 was immediately delivered to them to elicit and replicate the naturally occurring behavior for the test. Data obtained from the questionnaire gave indications of the reasoning employed in selecting items to complete blanks in the cloze text and of the strategies employed in doing so. From these indications, it was possible to infer the cognitive processes of the students in the
The immediate retrospective method was used to collect data. According to Nunan (1992), retrospection means the reflection of the mental events some time after they have taken place. The immediate retrospective method in the present study can avoid interfering with the testees’ reading processes and tends to be reliable in restoration or retrieval of the processes, as the data are collected when traces of cognition are still present and fresh in testees’ short-term memory. Some researchers (e.g., Storey 1997; Gao & Gu 2008; Yamashita 2003) resort to concurrent or simultaneous introspective methods to investigate testees’ cognitive processes in their comprehension of certain texts. This think-aloud method to collect data indeed can help to reflect the processing experience of the testees, but it has some limitations. For example it can lead to the potential risk of drawing the testees’ attention away from their on-going normal process for the test or contribute to the instant change of testees’ reading process strategies thus influence their performance on the test. Storey (1997) also mentions that the influence of introspection or think-aloud on task performance should not be missed, but deserves attention. Additional or different processes may be employed as an alternative to elicit a test-taking process. In view of this he suggests that the test-taking strategies which were revealed and particularly widespread in introspection research can be made into a choice of multiple-choice options for participants to choose from. The immediate retrospection method would help testees to accommodate the listed strategies with their conception of the overall test-taking process. The information that the strategies mirror can be relied on to deduce the natural cognitive processes. In addition, Yamashita (2003) found in her research that the think-aloud method failed to reveal the thinking processes when the answering processes came out nearly automatically, which was also reflected in the introspective study conducted by Gao and Gu (2008). In the light of the limitations of the simultaneous introspection method, Yamashita (2003) suggested that different approaches for introspective data might be adopted such as prompted retrospective methods. All the above suggests that it is justified and appropriate to use the immediate retrospective method to explore test-taking processes in this study.

Both the test and questionnaire 1 were required to be sent back to the researcher online five minutes later. Then a brief interview was conducted to help further
understanding their reading process for the test. At the end of the brief interview which took no more than five minutes, the second questionnaire was delivered to the participants and upon completion another brief interview was conducted immediately to get more information about their choice of vocabulary acquisition strategies.

The last step was the collection of the data which came from the two questionnaires, the two brief interviews and the cloze test. Based on the results of the two groups, a comparison was made to see whether the proficient students were different from the less proficient students in reading process and adoption of vocabulary acquisition strategies. Further analyses were conducted to examine whether there were a correlation between the students’ test-taking process and their adoption of certain vocabulary acquisition strategies. If a certain positive relationship could be detected then its implication for vocabulary acquisition was to be speculated on and suggested.

2. Theoretical Background

A cloze test has long been regarded as a way to measure testees’ reading ability. It actually involves testees’ reading processes in accomplishing cloze items. Therefore this part presents the established theories about second language reading approaches, which constitute the foundation for the first questionnaire about test-taking process for a cloze test. Furthermore a review of previous studies on test-taking processes for cloze tests is conducted here, which was helpful in the formation of the first questionnaire. Relevant second language vocabulary acquisition theories are introduced, on which the second questionnaire was based.

2.1 Approaches to second language reading

According to Goodman (1988), reading is a receptive process. In writing the writer encodes his or her thought as language and in reading the reader decodes language to his or her own thought. There is thus an essential interaction between language and thought in reading. As Widdowson says:

> From the cognitive point of view both the initiation and the interpretation of discourse involves creative activity. Learning to comprehend efficiently involves the activation of interpretive techniques or procedures and the same procedures are brought into play in reverse when discourse is composed. (1979:156)
In the light of the interaction activities between language and thought, readers should maintain constant focus on constructing the meaning throughout the process to make reading more efficient and effective. They need to seek the most direct path to meaning, using strategies for reducing uncertainty, being sensitive to and selective about the use of the cues available, making use of the redundancy of the text to deduce the meaning and drawing deeply on their previous conceptual and linguistic competence (Goodman 1988). From this point of view, reading processes can be quite subjective and vary from person to person, and the way a reader approaches a text can impede or facilitate his or her understanding of the material. Views of the nature of the reading process contribute to the revitalization of both theory and practice in second language reading due to the crucial and critical position of reading. The following are some prevailing theories relevant to the present study about second language reading approaches.

2.1.1 Bottom-up approaches to second language reading

Carrell (1988:2) mentions in her introduction to interactive approaches to second language reading that bottom-up processing refers to “the processing of the incoming data that is analyzed, categorized, and interpreted on the basis of information in the data”. The focus of bottom-up processes is mainly on the analysis of small bits of discourse, such as individual lexical items, by assigning them grammatical status on the basis of syntactical and morphological cues. Bottom-up processes were primarily viewed as “a decoding process of reconstructing the author’s intended meaning from the smallest textual units at the ‘bottom’ (letters and words) to larger and larger units at the ‘top’ (phrases, clause, intersentential linkages)” (Carrell 1998:2). In this linear way, readers develop their understanding of the text from the interpretation of the low-level information to the high-level information.

Early work in second language reading assumed a rather passive, bottom-up, view of second language reading. Rivers, as cited by Carrell (1998), mentions that problems of second language reading and reading comprehension could be viewed as being essentially decoding problems, deriving meaning from print. However, Eskey (1973) thinks the decoding model is inadequate as a model of the reading process because it underestimates the contribution of the reader and it fails to recognize that students
utilize their expectations about the text based on their knowledge of language and how it works. This recognition of the limitations that exist in the bottom-up reading processes contributes to the emergence of the idea of a top-down reading process.

2.1.2 Top-down approaches to second language reading

Goodman (1971) describes reading as a “psycholinguistic guessing game”. He situates reading within the broad context of communicative, meaning-seeking, information process. In this model, the reader need not understand every linguistic item or every textual cue. The better the reader is able to make correct predictions, the less confirmation via the text is necessary. Other reading experts characterize this model as basically a concept-driven, top-down pattern in which “higher-level processes interact with, and direct the flow of information through lower-level processes” (Stanovich 1980:34). This reading process is totally opposite to the bottom-up reading process. In this model, what the reader processes first is the high-level information, gradually moves down to the low-level information.

According to Carrell (1988), only since 1979 has a truly top-down approach been advanced in second language reading. In the top-down view of second language reading, according to Carrell (1988), the reader, as an active participant and information processor in the reading process, should make and confirm predications and inferences about what will follow in the discourse, meanwhile everything in the reader’s prior experience or background knowledge tends to contribute a lot to and plays a significant role in the process. Rumelhart (1980) and some other researchers refer the role of background knowledge or previously acquired knowledge in language comprehension as schema theory. According to schema theory, comprehending a text is an interactive process between the readers’ background knowledge and the text. That is to say, the involvement of the reader’s schemata, or knowledge already stored in memory can stimulate the process of interpreting new information thus promote reading comprehension.

The introduction of the top-down processing perspective was once viewed as the substitute for the bottom-up, decoding view of reading rather than its complement. It has long been regarded as the better way to promote a much faster, more efficient
comprehension of the intended message. But top-down models do have some limitations. As Eskey mentions:

They tend to emphasis such higher-level skills as the predication of meaning by means of context clues or certain kinds of background knowledge at the expense of such lower-level skills as the rapid and accurate identification of lexical and grammatical forms. (1988: 93)

Eskey’s point of view reflects the fact that linguistic problems should not be neglected in second language reading. Guessing or predication should not be the substitute for accurate decoding of the language. Eskey further points out that this top-down model is suitable for proficient readers as their perception and decoding have become automatic but not for the less proficient readers.

2.1.3 Interactive approaches to second language reading

Linear models as bottom-up and top-down reading approaches contain a serious deficiency. If the information obtained by means of bottom-up decoding can not integrate with the information provided by means of top-down analysis, a complete understanding of a text can not be easily achieved. Rumelhart (1980) argues that effective and efficient reading, whether in a first or second language, requires both top-down and bottom-up strategies operating interactively. Only when the incoming information processed through bottom-up processing and the conceptual predictions made through top-down processing are compatible can the reader have a thorough interpretation of the text. Stanovich (1980) supports the view that the interactive models of reading lead to a more accurate conceptualization of reading performance than do strictly linear top-down or bottom-up models.

According to Samuels and Kamil (1988) interactive models have interacting hierarchical stages, rather than discrete stages that are passed through in a strictly linear fashion, models that allow processing at one level or stage (e.g., word perception) to interact with processing at another level or stage (e.g., semantic knowledge). It highlights the integration between the interpretation of word conception, the processing of the semantic knowledge and the involvement of background knowledge. Stanovich argues that “good readers are more reliant on context for fluency and poor readers more reliant on context for accuracy” (1980: 51).
That is to say, to achieve fluency and accuracy in reading, readers should develop their recognition skills and interpretation strategies, which can be achieved from the interaction of both bottom-up and top-down reading processes. Thus, interactive approaches to reading hold much promise for an adequate understanding of the complex nature of reading comprehension, especially when it occurs in a second or foreign language and culture.

2.2 Cloze tests

The cloze test originated in the 1950s as a means of assessing the difficulty of a reading test for native speakers but then other studies soon indicated that cloze might also be a valid way of measuring native-speaker reading ability. The validity coefficient in these studies ranged from .61 to .95 between cloze tests and standardized reading comprehension examinations (Brown 1983). It then was suggested that cloze tests could be used for assessing learners’ progress of second and foreign language. The principle of the cloze test mentioned by Harrison (1983, cited by Read 2000) is that at regular intervals the single words are deleted from a text, and students have to fill each gap with one appropriate word. To fulfill the goal, the students need to refer to the text on either side of the gap even beyond the current sentence so that based on both meaning and structure he or she can judge the most suitable filler.

2.2.1 Types of cloze tests

Cloze tests include kinds of variants. Some authors refer to one kind of test as the only standard cloze: the one that consists of one or more reading passages from which words are deleted according to a fixed ratio. In this test format, each deleted word is replaced by a blank of uniform length, and the testees are required to write a suitable word in each space (Read 2000). However a number of modifications to the standard format are commonly termed as ‘cloze’. Read (2000) introduces three common modifications in his book Assessing vocabulary. One is the selective-deletion (or rational) cloze. In this format, the test-writer deliberately chooses the words to be deleted based on the principled criteria. The multiple-choice cloze is another modified version to cloze with each deleted word incorporated into a multi-choice cloze item together with three other distracters for testees to choose from. A third alternative is
the c-test, in which a series of short texts are more radically mutilated by deleting the second half of every second word. A banked cloze test is a newly innovated one based on other cloze variants, especially on the multiple-choice cloze test format. It was adopted in the CET-4 in China in 2006. In a banked cloze test, a text with ten gaps is followed by a bank containing ten prompts that are the deleted words and five other distracters. All these fifteen words in the bank are content words. The testees are required to choose the appropriate ones from the bank without any alteration on the word forms.

2.2.2 The construct validity of cloze tests

Cloze tests have been used for a variety of purposes and they have been the subject of intense debate for many years. The focus of the controversy is about the construct validity of cloze tests. As Yamashita (2003) argues, if it can be proved that cloze tests can measure the global–level comprehension ability, they will contribute a lot to testing techniques and human resources due to their valuable practicality. Meanwhile if they can not measure comprehension that ranges beyond sentence level, different kinds of tests should be suggested to test reading ability. Thus it is of great necessity to explore what a cloze test actually measures.

Wilson Taylor (1953, cited by Read 2000) initiated the cloze test as a means of evaluating the readability of texts for particular groups of students. Subsequently, it was repeatedly investigated and was suggested that it is applicable to measuring L1 reading comprehension ability. As was acknowledged, cloze tests are context dependent in nature. Testees’ vocabulary knowledge alone is not sufficient to fulfill the goal to identify a missing word; various kinds of knowledge should be employed to do so successfully. In this process of reconstructing the original words they may make use of the integrative abilities that underlay all their language performance which may involve linguistic, discourse, sociolinguistic and strategic competence. Read (2000) supports the above opinion by saying that, in a large proportion of cases, to be able to figure out what the missing word is, the test-takers should have to look beyond the immediate environment of the blank, that is to say, beyond the clause or sentence in which it occurs. The argument is correspondent with the notion of Oller (1979). He regarded the standard fixed-ratio cloze as a highly effective way of testing
learners’ overall second language proficiency and pointed out that cloze tests tested overall integrative knowledge instead of knowledge of particular vocabulary items or grammatical elements. However this point became a source of controversy among researchers on the cloze procedure.

On one side are the advocates of cloze tests who see the cloze task as involving a discourse processing ability which can provide a measure of language proficiency. Chihara et al. (1977), using a fixed-ratio deletion procedure with intact and scrambled texts, found that the subjects performed much better on cloze items in intact texts than they did on the same items in the scrambled texts. The results of the study demonstrated that the discourse structure of the text made a substantial contribution to performance in the cloze test and were interpreted as evidence that the cloze test is sensitive to linguistic contexts longer than a sentence. Several other studies have also shown that cloze items are capable of measuring textual relationships beyond the level of the sentence; in other words, a cloze test is capable of measuring test-takers’ comprehension ability at text level (Bachman 1982). Storey (1997) mentions that concurrent validation of cloze tasks has consistently shown a positive relationship between cloze and global comprehension measures. Therefore, the cloze measure can serve as a general and overall language proficiency measure.

On the other side are those who see a cloze test as only measuring the ability to make localized connections in the text. Read (2000) mentions that some studies (e.g. Markman 1985) claim that a cloze test cannot measure comprehension beyond sentence level. Other scholars (e.g. Alderson 1979), employing a variety of research methods, produced evidence that most cloze blanks could be successfully completed by referring only to the immediate linguistic context. Based on the findings they draw the conclusion that the cloze procedure basically assesses just knowledge of local grammar and vocabulary rather than high-level reading skills beyond the individual sentence.

2.2.3 Previous work on test-taking processes for cloze tests

Different cloze tests serve different purposes. Thus different varieties of cloze tests should be investigated. Analysing the test-taking processes for different cloze tests
can provide evidence of the validity of test items and testing techniques, which will shed light on what is relevant to the controversy mentioned above. It also helps to reveal whether or not the mental processes generated in dealing with cloze items are correspondent with the ability to be tested, thus help reading researchers and teachers to make adjustments on these techniques to fulfill corresponding test goals.

2.2.3.1 The standard, fixed-ratio cloze test

To make a detailed analysis of what is involved in responding correctly to each item is a good way to explore what a standard cloze test measures. It has been acknowledged that not all cloze items carry the same amount or kind of information and thus the knowledge required to restore the cloze items can not be the same (e.g. Storey 1997). In order to find out the clues available for inferring the meaning of unknown words in a text, Bachman (1985) developed a four-way classification of the information levels that are thought to be necessary to complete cloze items:

1 within clause;
2 across clause, within sentence;
3 across sentences, within text; and
4 extra-textual.

According to Bachman, these four information levels are hierarchical in difficulty with type 1 – within clause being the easiest and type 4 – extra-textual being the most difficult. In other words, depending on the type of words deleted, testees are more likely to activate different types of knowledge and ability; for example, they need much more difficult information knowledge to restore type 4 items than type 1 items. Based on the study on three fixed-ratio cloze tests, Bachman (1985) concluded that a fixed-ratio cloze test tends to contain more items that can be dealt with by using type 1 and type 4 information sources than items requiring type 2 and type 3 information sources. The average proportion of the latter two types was only 19% in his research, which indicated that fixed-ratio cloze tests are not an appropriate way to measure overall comprehension ability.

Jonz’s (1990) research on eight standard cloze tests tends to give support to Bachman’s conclusion. Jonz slightly modified Bachman’s classification and divided the within-clause information level into clause-level syntax and clause-level lexis in
his research. He found a high level of consistency in the percentages of items assigned to each type of context. Over the eight cloze passages, Jonz found the following percentages for the five categories:

<table>
<thead>
<tr>
<th>Type of Context</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clause-level syntax</td>
<td>24.1%</td>
</tr>
<tr>
<td>Clause-level lexis</td>
<td>33.0%</td>
</tr>
<tr>
<td>Within the sentence</td>
<td>10.9%</td>
</tr>
<tr>
<td>Within the text</td>
<td>23.2%</td>
</tr>
<tr>
<td>Outside the text</td>
<td>8.9%</td>
</tr>
</tbody>
</table>

(1990: 70)

As can be seen from the above, the proportion of types – within the sentence and within the text is only 34.1% while 57.1% of the items could be answered from within the clause, which gives confirmation to Alderson’s (1979) opinion that most of the standard fixed-ratio cloze blanks could be filled by using the clause or the sentence level information. Thus Alderson concluded that the standard cloze procedure measured what he called lower-order skills, particularly those involving vocabulary and sentence structure, not high-order skills.

### 2.2.3.2 The selective-deletion or rational cloze test

Though standard fixed-ratio format was regarded by the research in the above section as the unsuitable way to evaluate students’ overall interactive ability, it has long been favored as the most valid form of the cloze procedure for assessing second language proficiency. However, some scholars have argued for a more selective approach to the deletion of words from the text (Read 2000). Alderson (1979) mentions the selection of deletions should be based upon a theory of the nature of language and language processing. The principle of randomness needs to be abandoned in favour of the rational deletions. Read (2000) also suggests that in terms of assessing the learner’s ability not only to supply missing content words on the basis of contextual clues, but also, at a more advanced level, to choose the most stylistically appropriate word for a particular blank, the cloze procedure with rational selection of deletions tends to be more effective than the one with fixed-ratio deletions. In order to clearly differentiate rational-ratio cloze test format from fixed-ratio cloze test format, Alderson (2000) named the former ‘gap-filling tests’ and confined the term ‘cloze’ only to fixed-ratio cloze tests. He argues that the cloze tests should not be used as a reading comprehension test, while the gap-filling tests can.
Yamashita (2003) conducted a study on a gap-filling test in order to examine whether such tests can measure text-level processing ability as Alderson mentions. Simultaneous introspection was employed as the research method. Based on Bachman’s (1985) four categories of cloze item types, she developed her own framework. Guessing was included in the categorization framework of information sources. (The researcher of the present study tends to support Gao and Gu’ (2008) classification in which guessing was recognized as one of the strategies. Thus it was placed in a strategy list in the present study.) Yamashita’s study reflected the tendency that both skilled and less skilled readers use text-level information more frequently than other types of information. The skilled readers resort to text-level information for item closure more frequently than the less skilled readers. Her study lends support to Alderson’s (2000) argument that a gap-filling test can be used to test students’ higher-order processing ability.

2.2.3.3 The multiple-choice cloze test

It is generally acknowledged from research that MC cloze test procedure reveals process relating to several aspects of language proficiency, including reading comprehension and the knowledge of vocabulary. Porter (1976) argues that the standard format of cloze test requires testees’ writing ability, whereas the multiple-choice version makes a cloze test more a measure of reading comprehension. The multiple-choice version of cloze procedure functions quite differently from the fill-in format of cloze tests.

Storey (1997) believes to measure how an MC cloze test functions should involve the consideration of cloze items and the test-taking behaviors of testees. If cloze items can generate a test-taking process that fits into the model of ideal performance, then it can be concluded that the items can test what they are designed to test. If cloze items generate other processes, then it indicates that they lack construct validity. Therefore, it is of great necessity to indentify what cloze items tend to measure and what the test-taking process reveal. Storey designed a multiple-choice rational-deletion discourse cloze test to investigate test-taking processes. The deletion of items was based on their function and their range, on “the amount of text which has to be processed in order to locate disambiguating information or information to elucidate
the role of logical or rhetorical markers” (Storey 1997: 219). By using the think-aloud method involving concurrent introspection and immediate retrospection, the behavior patterns identified were analyzed in relation to discourse markers and cohesive devices. Storey found that different items entail varying degrees of construct validity. He concluded that the discourse marker items were able to generate discourse processing strategies and an analysis of test-taking processes can help to demonstrate the construct validity of cohesive items in the chosen cloze test. However the researcher pointed out that the observed behaviors and inferred processes may not give a full picture of the cognitive answering process. On the whole, the designed multiple-choice test is considered to be valid in measuring intersentential comprehension ability.

2.2.3.4 The C-test

The C-test consists of four to six short, preferably authentic texts which are prepared for testing by selecting the second half of every second word. This modification of the cloze test may seem to be the least promising as a specific measure of vocabulary. However, Chapelle and Abraham (1990) found in their research that the C-test correlated highly with their multiple-choice vocabulary test. The researchers interpreted this high correlation as evidence that the C-test could be a very good measure to test what Alderson would call ‘low-level’ knowledge of lexical and grammatical elements, while at the same time, the substantial correlations with the reading and writing subtests indicated that it also drew on ‘high-level’ textual competence. Thus, it can be an integrative testing instrument that measures overall language ability.

To investigate the construct validity of the C-test, that is to say, to find out what the test really measures, Feldmann and Stemmer (1987) conducted a study on learners’ test-taking performance on the C-test, using a combination of introspection and retrospection method. The purpose of their study was to investigate the operations and processes by language learners. After analysis of the test-takers’ responses, they found two types of strategies: recall strategies and evaluation strategies. In their study they defined strategy as “a potentially conscious plan for solving what, to the individual, presents itself as a problem in reaching a particular goal ” (1987: 258). Furthermore
the researchers found that these strategies can be ranged from top-down processing to bottom-up processing. However, the construct validity of the C-test was not clearly answered or demonstrated.

2.2.3.5 The Banked cloze test

As a brand-new test format in CET-4, the construct validity of banked cloze tests needs to be investigated and explored. When it was applied in innovated CET-4 in 2006, as a part of Reading in Depth, it was designated to measure students’ reading ability. As is revealed in the test specification of CET-4:

> Reading in Depth is to assess students’ ability to read at various levels, including main idea and important facts, comprehensive analysis, inference and guessing word meaning based on the information in the context. Banked Cloze assesses students’ ability to understand and employ words in actual context. (Overview of CET-4 2006 on line)

Thus, it can be reasonably concluded that banked cloze tests aim to evaluate students’ comprehensive ability including their comprehension of context and application of words. However, Yamashita argues that it can not always be true that “the test items measure the ability that the researchers are interested in”, because in the test situation, testees may “use quite different processes to answer the item from those anticipated” (2003:3). Therefore it is of great necessity to involve testees into the investigation in validating banked cloze tests. Their test-taking process can help to reveal whether their reading ability is tested.

In the light of this, Guo and Gu (2008), by employing introspective method to collect data, conducted a study on test-taking processes for a banked cloze test. They investigated the types of information sources and strategies that testees employed to answer items in their test-taking processes. They thought it beneficial to involve these two elements in a process-oriented study because of their integrative and indispensible relationship. Based on Bachman’s (1985) classification of item types, results showed that clause level information was most frequently adopted by the testees. The twelve strategies revealed from testees’ protocols were grouped into three categories. Results showed that testees tended to be more concerned with bottom-up processing strategies. The verbal protocols gave indications that the high-proficient readers seemed to have a context-based reading model while the less proficient readers often employed word-based approaches. In the light of the findings, it seems
reasonable to deduce that banked cloze tests can test testees’ high-order skills, but to which extent depends on testees’ language proficiency. However, as a comparatively newly born test format, there have not been so many relevant studies up to now; therefore the construct validity of the banked cloze test needs to be further investigated.

Seen from the studies mentioned above, there always exists discrepancy in the research findings due to different methodological grounds, research angles or other variables. When Yamashita (2003) referred to the findings of other research, she argued that what cloze tests measure comprise language-related knowledge and both low-level and high-level reading comprehension abilities depending on various factors such as test types and the proficiency level of testees. Thus, we need to be cautious about drawing conclusions from the results of these studies and avoid over-generalizing the findings of cloze test research.

2.3 Vocabulary acquisition

Words are important because they are basic building blocks of language, the units of meaning from which larger structures such as sentences, paragraphs and whole texts are formed (Read 2000: 1). Many L2 learners feel that their difficulties in both receptive and productive language use mainly result from an inadequate vocabulary. Thus, how to effectively and efficiently acquire vocabulary has long been the focus of second language acquisition. The following intends to briefly introduce some influential theories related to and some popular ways of vocabulary acquisition. They tend to provide a theoretical background for the formation of the second questionnaire in the present study.

2.3.1 The interactionist theory

The interactionist theory stresses that much second language acquisition takes place through conversational interaction. It focuses on the message and fluency rather than on grammatical accuracy. Long, cited by Lightbown and Spada (2002), argues that only comprehensible input is not enough to acquire an L2, learners should have the opportunity to interact with other speakers. In class settings, students can be taught through problem-solving activities, and tasks in which students have to negotiate the
exchange of information. Many researchers in this field suggest that “since vocabulary development occurs naturally in L1 through contextualized naturally sequenced language, it will develop with natural, communicative exposure in L2” (Zimmerman 1997:15). The chance to interact and exchange information with other interlocutors in authentic environment tends to develop learners’ knowledge of words.

As far as vocabulary acquisition is concerned, although little guidance is given about how to handle vocabulary other than as the support for the appropriate use of communicative categories, interaction is still a good way to master unknown words. In order to have a smooth communication, the speakers sometimes have to repeat, clarify, and explain to make the language more comprehensible while the listeners should have to pay attention to the meaning words have conveyed. Once a word is consciously noticed it is not far away from being acquired. In a classroom setting, a certain topic provides the relevant conversational contexts which can help learners understand the word meaning and make it rooted when negotiating with other L2 learners or through certain repeated productive practice.

2.3.2 Word meaning theory

There are mainly two arguments about word meaning, the fixed meaning assumption and the fuzzy meaning assumption. According to Aitchison (2003), the meanings of the majority of words in the mind are fuzzy, not fixed. In different contexts the same word will show different meanings. For this reason, when learning L2 vocabulary, it is not accurate and enough to translate the word into a fixed meaning in the first language. Memorizing one or two meanings of a word is far from mastering the word. Richards, quoted by Taylor (1990), mentions that knowing a word means: the knowledge of the frequency of the word in language; the knowledge of the register of the word; the knowledge of the collocation; the knowledge of morphology; the knowledge of semantics; the knowledge of polysemy and the knowledge of the equivalent of the word in the mother tongue. Thus putting words in a certain situation and learning through context would be an efficient way to deepen the knowledge and acquire the full aspects of the words.
2.3.3 Semantic network theory

According to Aitchison (2003), a semantic network is a network that represents the connections of concepts and in the network words are linked together and form an interconnected system, which is based on the assumption that lexical items create links with each other like a great web. Richards (2008) argues that vocabulary is more than just individual words working separately in a discourse environment, and once words are placed in discourse, they establish numerous links beyond the single orthographic word level, such as set phrases, variable phrases, phrasal verbs and idioms. That is to say, the meaning of every single word is modified by its occurrence in the specific context, particularly by its co-occurrence with other vocabulary items. It highlights the fact that words require their neighboring words to express meaning. Ashcraft (1994) calls the connections between the items semantic relatedness. Two objects are strongly linked in the mental lexicon when the degree of semantic relatedness is high. It takes a short period of time to retrieve a lexical item when the relatedness is high, while it takes a comparatively long time when the relatedness is low. These relationships tend to reflect some type of underlying mental relationship in the mind. Aitchison (2003) maintains that through activation of several words and meanings both recognition and production of words and meanings in the network can be achieved. Depending on if the activated words and meanings have the required characteristics to fit the needed word or meaning they either get chosen or disregarded.

Based on Aitchison (2003:86), four types of association are considered to be the most important ones: coordination, collocation, superordination, and synonymy. Coordination is regarded as the commonest association involving “words which cluster together on the same level of detail”. Collocation is the next common association involving a word which is likely to “be collocated with the stimulus in connected speech”. Superordination is less common association which shows a word can stimulate the word that includes it. Synonymy is the least common one. It shows that sometimes a word can help to make an association with other words with the same meaning. The tight association between words is quite helpful for learners to learn vocabulary. It might be easier to learn the words that have a connection between them than words that have no relationship. For L2 learners, learning the same species
of words together should be a good strategy to master vocabulary. However, it is worth noticing that not all associative activities can contribute to vocabulary acquisition. Research by Higa (1963, cited by Nation 2001), has shown that learning items together that are near synonyms, opposites, or free associates is much more difficult than learning unrelated items, because many learners will mix the word forms and meanings. Tinkham (1993) also mentions that if closely related words are put together, it will add difficulty for learners instead of promoting learning. The associative activities can result in more confusion than clarity and increase the difficulty of learning. Therefore the timing for such associative activities is essential. The time for such activities should be when all or all except one of the items in a group are largely familiar to the learners and they now need to clarify the distinctions between them.

2.3.4 Comprehensible input theory

According to Krashen’s (1985) Input Hypothesis, learners can acquire language in only one way - by exposure to comprehensible input. If the input contains forms and structures just beyond the learners’ current level of competence in the language, then both comprehension and acquisition will occur. Put another way, learners can learn all the vocabulary they need from context as long as they get access to comprehensible authentic and enjoyable input. Successful language learning results from comprehensible input as the essential external ingredient coupled with a powerful internal language acquisition device.

Krashen (1985) also emphasizes that undirected pleasure reading can be an effective way of learning language. Especially in L2 vocabulary acquisition, extensive reading provides learners with the chance to get acquaintance with new words in meaningful situations. It can facilitate the reading process and make vocabulary acquisition easier, faster, more enjoyable and effective. Thus, reading for pleasure is a good way to acquire vocabulary. It is argued that L2 learners who achieve advanced reading proficiency in a language will acquire most of their vocabulary knowledge through extensive reading rather than from instruction. However, reading materials should be just beyond the learner’s level. The new words in reading materials should not be too easy or too difficult for the learners. To put it more simply, reading materials should
be challengeable but still manageable. So to control the level of the word and make it match the level of the learners’ cognition is essential in comprehensible input.

To consider the level of vocabulary in reading materials is important for comprehensible input, so is the amount of new words. Nation (2001) states that for vocabulary growth, extensive reading should contain no more than 5% of unknown words to ensure that guessing and comprehension occur. In addition, if there are too many new words, learners will not acquire them at all. When there is enough space in mental storage and the comprehensible input is not too much, acquisition can happen automatically. However, for less proficient learners especially for those whose vocabulary size is very limited, to learn words through extensive reading is a bit fast-forward. Explicit instruction or intentional learning of the most common words can help less efficient learners to go smoothly to the stage of enjoyable extensive reading. Although when reading extensively, a small amount of vocabulary can be learnt at one time, it can be greatly expanded if learners do a great quantity of comprehensible reading.

2.3.5 Incidental focus on form

According to the comprehensible input theory, incidental focus on language items can be an effective way of learning language as soon as the input is comprehensible. Incidental focus on form can be defined as a kind of learning method from reading, listening, speaking or writing to language use while learners’ main attention focuses on the information of passages or texts (Nation 2001). It is the most important of all sources of vocabulary learning. Various studies show that incidental vocabulary learning plays an important role even though learners’ attention is mainly on meaningful communication and not language itself.

Elley (1989) carried out research on vocabulary learning in oral contexts. He found that if the speaker happens to give a little extra decontextualized attention to a word when telling a story, that word has much greater chance of being learned. Thus incidental focus on form is considered by Ellis (2001) to be a potential way to achieve an integration of meaning-focused and form-focused activities in the second language classroom.
Loewen (2005) suggests four potential benefits of incidental focus on form. First it may cause learners to attend to form, meaning, and use in a single cognitive event. Second, it can provide opportunities for learners to alternate their attention between processing language for meaning and for form. Third, it can provide opportunities for learners to produce pushed output, in other words, to produce utterance spontaneously and unconsciously under certain pressed situations. Finally, producing pushed output can force learners to process language syntactically rather than semantically. In other words, producing the linguistic form and making the cognitive connections are better than merely perceiving the forms.

One of the most popular incidental vocabulary learning methods is the extensive reading method. Mason & Krashen (1997) point out the effectiveness of extensive reading in context as facilitating reading ability and language competence as well as improving students’ attitudes and increasing their motivation towards learning English. Nuttall (1996) even claims that “an extensive reading programme is the single most effective way of improving vocabulary”. According to Elley (1989) increasing the amount of reading where learners are motivated and focused on meaning leads to measurable vocabulary acquisition. But this incidental learning of words mainly depends on repeated exposure. The process of acquisition is slow, and there is no way to predict which words will be learnt, when nor to what degree. Furthermore in classroom settings because of the time constraint it is not possible to provide students with a large quantity of material to read. And students cannot be expected to pick up substantial or specific vocabulary knowledge through reading exposure without guidance. Thus, the limitations of this method should be noticed in language learning and teaching. One way to minimize the disadvantages of this learning method is to make the learner hear and see and use the word repeatedly. As Nation (2001) argues, the more often an unknown word is shown in the context the more likely it can be guessed and learnt. The more frequently the word appears the more it will impress the learner and the easier the learner will acquire the word. Thus, consciously to improve the occurring frequency of target words and to make students do series of receptive and productive exercises will certainly help the mastery of these words.
2.3.6 Intentional vocabulary learning

Intentional vocabulary learning is a traditional and common method in learning vocabulary directly. It can be called explicit learning of vocabulary and it focuses attention directly on the information to be learnt. Ellis (2001) calls it the planned method involving the use of tasks designed to elicit forms which have been selected ahead by teachers. Nation (2001:95) further explains that it involves that elaborate attention is given to a word, which is going beyond the immediate demands of a particular context of occurrence. It is appropriate for elementary learners in an EFL environment to learn high-frequency words and the words learners have special needs for in their own fields.

Generally speaking, intentional learning of vocabulary is a method of learning vocabulary by using tools to bring the learner’s attention into direct contact with the form and meaning of words, such as dictionaries, vocabulary lists, and direct vocabulary explanation. As a traditional approach to vocabulary acquisition, the values of explicit learning are presented by Nation as follows:

(1) it is efficient in terms of return for time and effort, (2) it allows learners to consciously focus on an aspect of word knowledge that is not easily gained from context or dictionary use and (3) it allows learners to control the repetition and processing of the vocabulary to make learning secure. (2001: 302)

Two popular intentional vocabulary learning methods relevant to the present study among Chinese students are learning vocabulary through lists of words and through word cards. Rote memorization of listed words and learning from word cards are very similar in forms and functions. Systematic procedure of learning from lists is to memorize the form and meaning of L2 words together with their translation equivalents in the learners’ L1, while learning from word cards, according to Nation (2001), refers to the formation of association between a foreign language word form (written or spoken) and its meaning (often in the form of a first language translation, although it could be a second language definition or a picture or a real object, for example).

These two vocabulary acquisition methods are totally decontextualized techniques. According to Oxford and Crookall (1990), decontextualized techniques are those that
remove the word as completely as possible from any communicative context that might help the learner remember and that might provide some motion as to how the word is actually used as a part of the language. With this in mind, though these kinds of learning can provide learners with valuable first introductions to a word and the values mentioned above by Nation, without varied contexts which lead learners to broad understanding of its collocations, additional meanings and other aspects, their limitations are quite obvious. What is more: established theories prove that there is much more to vocabulary knowledge than just having an associative link between an L2 word and an equivalent word or phase in L1 (Read 2000). This is why many teachers discourage their students from memorizing lists of isolated words or using word cards.

Zimmerman (1997) also points out some possible shortcomings concerning this theory. Students often fail to realize that meaning is expressed in groups of words and in combinations of language segments, and that the meaning of an individual word is usually difficult to determine when it is separated from a context of other words and phrases, while traditional vocabulary list rarely provides contexts of this type. With regard to the advantages and disadvantages mentioned above, intentional vocabulary learning can not be very much effective when used alone. It is advisable to combine them with other learning techniques.

3. Analysis of the banked cloze test and questionnaire 1

The analysis in this section is conducted on the data collected from the banked cloze test and questionnaire 1. Questionnaire 1 is mainly to elicit the information sources and strategies that the test-takers adopted in the completion of the cloze items. Items in questionnaire 1 are analyzed in a manner similar to that used by Gao and Gu (2008) in their study on a banked cloze test. A comparison is made to see whether the banked cloze test format can generate consistent test-taking processes. The display of the results concerning two aspects in test-taking processes helps to give light to the first research aim of the present study.

3.1 Data from the banked cloze test

After the completion of the online research with the participants, twelve test papers
were collected and carefully scored according to the unique objective key criterion. One point was given to each correct answer. The scores were sorted out and grouped according to the division into the High Group and the Low Group. The mean scores of the two groups were calculated to make a comparison. The result demonstrated a significant difference between the two groups in the mean scores with the High Group 5 points higher than the Low Group. Although the test scores are not the focus of the present study and are not analyzed in detailed here, they actually indicate that the chosen banked cloze test differentiates well and is reliable to reflect the distinction between the two groups in English proficiency and thus valid to serve as an appropriate test material to help to reveal what happened in the test-taking processes of different groups in this study.

### 3.2 Information sources reflected in questionnaire 1

The categories of information sources are based on Bachman’s (1985) four-way classification of cloze item types (see section 2.2.3.1) and the findings of the research conducted by Gao and Gu (2008). Clause level information, sentence level information, text level information and extra-textual level information are listed in questionnaire 1. Data from the banked cloze test and questionnaire 1 were carefully categorized and analyzed. The results are shown in the following tables.

<table>
<thead>
<tr>
<th>Information sources</th>
<th>the High Group F (n)</th>
<th>the Low Group F (n)</th>
<th>Total F (n)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clause level</td>
<td>45</td>
<td>33</td>
<td>78</td>
</tr>
<tr>
<td>Sentence level</td>
<td>18</td>
<td>19</td>
<td>37</td>
</tr>
<tr>
<td>Text level</td>
<td>33</td>
<td>9</td>
<td>42</td>
</tr>
<tr>
<td>Extra-text level</td>
<td>7</td>
<td>4</td>
<td>11</td>
</tr>
<tr>
<td>Total</td>
<td>103</td>
<td>65</td>
<td>168</td>
</tr>
</tbody>
</table>

*F(n) means the number of information sources that test-takers adopted in completion of the items.

It is applicable to all the following tables.

As can be seen from Table 1, the total number of information sources identified in the participants’ test-taking processes is 168. If one item requires the adoption of one information source, the total number is supposed to be 120, as there were 12 testees
and 10 items in the banked cloze test. The discrepancy in the numbers is interpreted as an indication of the fact that the testees were utilizing more than one information source on which to base their decisions to answer an item. This process embodies the interactive nature of the reading (Samuels & Kamil 1988). A similar phenomenon was also reflected in the study of Gao and Gu (2008) on a banked cloze test. Therefore it seems possible to conclude that some of the deletions in banked cloze tests need more than one information sources for closure, which requires testees’ interactive processing ability. The findings can help to partly validate the banked cloze test as a tool to measure students’ comprehensive ability.

Table 1 also demonstrates the difference between the two groups in adopting the information sources. As is apparent from the table, the total number of information sources adopted by the High Group is much higher than that of the Low Group, which is correspondent with the result of Gao and Gu (2008). They regarded it as an indication that the proficient students attempt to comprehend the text more actively and are more skilled at the interactive use of multiple information sources than the less proficient students. This reasonable explanation can be applied to the interpretation of the difference in the present study but not the sole one due to the difference of the two studies. The big difference (103 versus 65) revealed in the present study is also presumably due to the limited testing time, which Gao and Gu did not set in their study. According to the brief interview with the participants, it seems that in the ten-minute test, the test-taking processes of the students in the High Group were much smoother and were likely to be different from those employed by students in the Low Group. In general, the High Group filled in the blanks one by one throughout the text, while instead of thinking about the coherent meaning of the text, students in the Low Group spent more time decoding the literal meaning from linguistic chunks (e.g., clauses, sentences). The Low Group also had to skip some items and come back to them more frequently than the High Group. There is no doubt that the less proficient students needed more time to finish the test. The consequence is, given the same testing time, the proficient students understood the text better and had more time than the less proficient students to find the clues to information sources and combine them to solve the cloze items. A detailed analysis of each category is given in the following sections.
3.2.1 Clause-level information

Of all the listed four information sources, clause-level information accounts for the largest proportion among both groups in their test-taking processes with a frequency of 45 and 33, respectively (see table 1). This result conforms to that of the research conducted by Gao and Gu (2008) on a banked cloze test and Jonz (1990) on the standard cloze test, where he found that 57.1 per cent of the items could be answered within the clause level. However, the result contradicts to that of Yamashita’s (2003) study on a gap-filling test in which she found that only 19.9 per cent of the items were completed by testees’ using clause-level information sources. As Yamashita (2003) mentions (in section 2.2.3.5) what cloze tests measure depends on various factors such as types of text and the proficiency level of testees. For this reason, it is of necessity to analyze why students particularly adopt clause-level information in the banked cloze test to see the difference from other cloze tests.

Further exploration was made on the cases of applying the clause-level information. Why and how students employed this information source was revealed from the interviews with the participants. Many participants, whether proficient or less proficient, like to first determine the part of the speech of the deleted word and then choose the appropriate answer from the options that belong to that part of speech. As in a banked cloze, all the ten key answers in appropriate forms are put together with five distractors. The design of the test format offers an opportunity for the testees to classify the options according to their forms and their part of speech or even their tense, and then make a match with the blanks, which can very often be finished in clauses. Many testees reported that the answer can be reached easier and faster by doing so. A similar behavioral pattern of process was also identified in the study of Gao and Gu (2008) on a banked cloze test but not in other studies on cloze tests (e.g., Feldmann & Stemmer 1987, Storey 1997, Yamashita 2003). Therefore it may reasonably be speculated that the attribute of the banked cloze test can help invite students to seek information at the clause level.

Though both groups seem to show a preference for clause-level information and use it more frequently than other types of information, there are still differences in their application of this information source.
Table 2 Clause level information sources used by the two groups.

<table>
<thead>
<tr>
<th>Information source</th>
<th>Correctness of the use</th>
<th>The High Group</th>
<th>The Low Group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>F (n)</td>
<td>P (%)</td>
</tr>
<tr>
<td>Clause level</td>
<td>Correct</td>
<td>35</td>
<td>77.8</td>
</tr>
<tr>
<td></td>
<td>Incorrect</td>
<td>10</td>
<td>22.2</td>
</tr>
</tbody>
</table>

*P (%) indicates the percentage of correct or incorrect use of one certain information source against the total adopted ones in a particular group. It is applicable to all the following tables.

Table 2 reveals that proficient students use clause level information more frequently and are much better at using it to get the correct answers than the less proficient students. With the help of clause-level information, the High Group got more correct answers (35 out of 45) than the Low Group (11 out of 33). The High Group had 77.8% of the adopted clause level information successfully used, while 66.7% of the adopted clause level information was wrongly used by the Low Group. Further analysis on the test papers and interviews revealed that the High Group tends to use clause-level information as a supplementary source to other information sources. That is to say, they may use other information sources combined with clause-level information to get the right answers, while the Low Group students tend to be more concerned with clause-level information as the sole source to complete the items. This model was also observed in the study by Gao and Gu (2008), which further supports that proficient students tend to have multiple employment while less proficient students have unitary employment of information sources. Furthermore, according to the participants in the present study, there were three cases whose answers came up nearly automatically with no obvious reference to a particular information source. In these cases, the three participants, all of them in the High Group, just attributed them to using clause level information, which also contributed to the total number of this information source. However, in introspective data collection method as employed by some researchers such as Gao and Gu (2008), Yamashita (2003) and so on, when the answering process is nearly automatic, the thoughts cannot be verbalized. Thus the cognitive process cannot be reflected in their verbal protocols and cannot be identified by the researchers. Therefore, when evaluating the results of studies, different methodology should be taken into consideration.
3.2.2 Sentence-level information

As is shown in table 1, there are only 37 cases in total using sentence-level information, which has a high level of consistency with the findings of Jonz (1990) on standard cloze texts. In his modified categories, the percentage of the information source within the sentence only occupies 10.9%. However the result of the present study may contradict the findings of Oller et al. (1979). Based on their research on scrambled and intact sentences in a cloze text, they argue that the discourse structure of the text made a substantial contribution to performance in the cloze text. That is to say, cloze items are quite sensitive to intersentential constrains.

In the present study, the low employment of sentence level information may be partly due to the attribute of the banked cloze test in which testees can get the possible answers comparatively easily within the clause level. There is not much difference in both groups in the frequency of adopting this information source with 18 in the High Group and 19 in the Low Group. However, as is shown in the table below, the correct rate of employing this information source is greatly different.

Table 3 Sentence level information sources used by the two groups.

<table>
<thead>
<tr>
<th>Information source</th>
<th>Correctness of the use</th>
<th>The High Group</th>
<th>The Low Group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>F (n)</td>
<td>P (%)</td>
</tr>
<tr>
<td>Sentence level</td>
<td>Correct</td>
<td>15</td>
<td>83</td>
</tr>
<tr>
<td></td>
<td>Incorrect</td>
<td>3</td>
<td>17</td>
</tr>
</tbody>
</table>

As has been revealed from the above table, once the sentence level information is employed, the High Group students are more successful in getting the right answers (15 out of 18) than the Low Group students (9 out of 19). The success rate of using the information is up to 83% in the High Group, but only 47% in the Low Group. Further examination on the interviews with the groups provides some possible explanations for this phenomenon. The students of the High Group tend to resort to the sentence to confirm the answers they have got by using clause level information even text level information. That is to say, they tend to use other information sources to complete an item with the supplement of sentence level information as a kind of confirmation of the chosen answer. However, the students of the Low Group often
make haste to seek the answer from the options whenever they meet blanks and get some idea of the deleted words, which is quite similar to that revealed in the less proficient readers’ protocols in Gao and Gu’s study. The Low Group students mentioned that if they were slightly certain of the filler, they would not have the intention to read the sentence where the blank occurs, which may partly be due to the fact that they had not enough time to think over the options in the testing situation. Some cases reveal that they tried to use sentence level information in combination with other information sources especially with clause level information. However they failed most of the time, which can possibly be due to their limited comprehension ability.

3.2.3 Text level information

As has been mentioned in section 2.2.2, the most frequently discussed and controversial topic in the research on cloze tests is whether they can measure global comprehension ability that ranges beyond the sentence level or if it only assesses just knowledge of local grammar and vocabulary. In the light of this study, it seems that the first opinion is supported as the testees actually applied the text level information during their process of taking the banked cloze test, that is to say, the restoration of the deletion depends on some reference to material outside the sentence providing the immediate context for the item.

As is shown in Table 1, there are all together 42 cases involving the use of text level information in the present study. It ranges second in the frequency of information source employment, which again conforms to the findings of the research done by Gao and Gu (2008) on a banked cloze test. This result also lends support to the findings of previous researchers on other types of cloze tests which show that cloze tests are sensitive to intersentential or text-level constrains and can be used to measure higher order skills (Bachman 1985) and can be used to make a reading comprehension test (Alderson 2000) and can be used for the purpose of measuring global-level comprehension (Yamashita 2003) and so on. However, the employment rate of text level information tends to be different in various studies. In the present study the rate is not as high as that in the Yamashita study (2003) on a gap-filling cloze test, where the text level information was employed more frequently than any other information
sources. As Bachman (1985) mentions, not all words in a given test function at only one or at the same structural level, and it therefore seems unreasonable to expect all deletions to depend equally on the same level or range of context for closure, which, Read (2000) thinks, indicates that tests differ not only in what they are designed to measure (the trait) but also in the task that they set the testees (the method).

In the present study the adoption of text level information is only second to that of the clause level information source; however the distribution of the frequency is greatly uneven in the two groups. Let us consider the following table:

Table 4 Text level information sources used by the two groups.

<table>
<thead>
<tr>
<th>Information source</th>
<th>Correctness of the use</th>
<th>The High Group</th>
<th>The Low Group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>F (n)</td>
<td>P (%)</td>
</tr>
<tr>
<td>Text level</td>
<td>Correct</td>
<td>30</td>
<td>90</td>
</tr>
<tr>
<td></td>
<td>Incorrect</td>
<td>3</td>
<td>10</td>
</tr>
</tbody>
</table>

Seen from Table 4, the two groups differentiate greatly in their adoption of the text level information source. The High Group used text level information much more frequently and successfully than the Low Group. The High Group referred to this particular information source 33 times but the Low Group only 9 times with 5 wrongly used cases. The High Group’s utilization of this information source generally leads to the correct answer, as the percentage indicates, while the correctness of the use in the Low Group is only about half to half. Instead of using text level information, the Low Group much more often resorted to and seemed confined to information at the clause level, depending heavily on clause level information. It can be deduced that the High Group was more able to incorporate information from a wider range of discourse than the Low Group.

A closer inspection shows the differences between the High Group and the Low Group in their process of information adoption. Some testees of the High Group reached their answers quickly and smoothly. They were capable of weighing and employing different types of information according to their importance in understanding the text. This seems to reflect the flexibility of their processes (Carrell 1988). They used text level information as the main information source to keep the
text meaning in mind and occasionally resorted to grammatical information at the clause level as a supplementary source to confirm their answers. On the other hand the Low Group testees seem clumsy in using various information sources in their attempts to fill the blanks. They were less able to use text level information; instead they put heavier emphasis on local grammatical information or the structure of sentences. Their cognitive effort was directed at deciphering information at phrase and clause level, which added great difficulty in their noticing of the relationship between sentences and paragraphs. The possible result of this way of processing is: by the time the end of a text is reached, chances are that students have forgotten what the above paragraphs are all about and therefore are unable to make the connection, which may further lead to the lack of a global understanding of the text. Anyway, once the clause level information fails to provide something valuable, it seems that they would resort to sentence or text level information as is revealed in the questionnaire and interviews. However, this procedure seems effort-taking and time-consuming and adds a significant burden to their understanding of the text.

3.2.4 Extra-textual information

Bachman (1985) mentions that, different deletions depend on different level or range of context for closure. To look at this another way: some words can be restored using only local linguistic knowledge while others need textual understanding, and even others can be dealt with by using information outside the current text. Therefore, depending on the types of words deleted and the possible clues given, test-takers are likely to activate different types of linguistic and cognitive processing. In the present study, the extra-textual information was used by both groups but not as frequently as other information sources. The details are shown in the following table.

<table>
<thead>
<tr>
<th>Information sources</th>
<th>Correctness of the use</th>
<th>The High Group</th>
<th>The Low Group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>F (n)</td>
<td>P (%)</td>
</tr>
<tr>
<td>Extra-text level</td>
<td>Correct</td>
<td>6</td>
<td>85</td>
</tr>
<tr>
<td></td>
<td>Incorrect</td>
<td>1</td>
<td>15</td>
</tr>
</tbody>
</table>

The High Group employed extra-level information only 7 times. However, when it was used by the High Group testees, they reached correct answers in most cases with
a correct rate of 85%. The interviews revealed that the extra-textual information utilized by the testees in the present study derives from two sources: their background knowledge and their test-taking experience, which is consistent with that revealed in Gao and Gu’s study. But the testees in their study utilized this information level more frequently than the testees in the present study. The difference may possibly lie in the testees’ topical knowledge or background knowledge. As Carrell (1988) mentioned in section 2.1.2, background knowledge plays an important role in reading comprehension. Reading is an interactive process between the reader’s background knowledge and the text. Therefore testees’ familiarity level with the content of the text can make a difference to their understanding of the text. The text used in Gao and Gu’s study is about weather, while the text used in this study is about the history and development of rock and roll. It can be speculated that generally students are more familiar with weather than with the history of rock and roll, which may possibly give reasons why testees in their study resorted to extra-level information more often.

According to Yamashita (2003), once the topic was understood, the students could activate their cultural schemata. Carrell (1988) supports this by saying that when the activated schemata are the right ones for the text, they can enhance comprehension. Therefore, in the present study the success of some cases which were answered correctly by using extra-text information could be more or less attributable to the topic of the passage. While it may be true that reliance on extra-textual information can mostly lead to right answers, as has been shown in the High Group especially, to rely on test-taking experience is nearer to a blind guess. What was revealed from the interviews with two students in the Low Group is that when they dealt with one certain item, among the left several unfamiliar options, they simply drew on their vague impression of a certain word only because it was often tested or they had met the word before. Such a move is not likely always to be successful as can be seen in the above table.

3.3 Strategies reflected in questionnaire 1

O’ Malley et al. (1985:23) define strategies as “the operations or steps that are used by a learner to facilitate the acquisition, storage, retrieval or use of information”. In the present study, the appropriate use of strategies tends to help the testees understand the
cloze text more easily and to deal with the cloze items more effectively and successfully.

In questionnaire 1, nine strategies were listed for the participants to choose from according to what they employed in the test-taking processes. These strategies were further grouped as bottom-up processing strategies, top-down processing strategies and test-wise processing strategies. The employment of each category by the two groups is as follows:

Table 6 Frequencies and proportions of strategies employed by the two groups

<table>
<thead>
<tr>
<th>Categories of strategies</th>
<th>The High Group</th>
<th>The Low Group</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bottom-up processing strategies</td>
<td>54</td>
<td>40</td>
<td>94</td>
</tr>
<tr>
<td>Top-down processing strategies</td>
<td>35</td>
<td>10</td>
<td>45</td>
</tr>
<tr>
<td>Test-wise processing strategies</td>
<td>24</td>
<td>38</td>
<td>62</td>
</tr>
<tr>
<td>Total</td>
<td>113</td>
<td>88</td>
<td>201</td>
</tr>
</tbody>
</table>

Table 6 displays the overall employment of the nine strategies by the two groups. In the High Group there are 113 cases involving the use of strategies while in the Low Group there are 88 cases, from which one might hypothesize that proficient students are more likely to use strategies in their test-taking processes to facilitate their understanding of the text. On the other hand, data from the questionnaires show that, students in the Low Group gave no responses to two strategies – preview the text before answering the items and evaluate critically what is read – which indicates that the High Group students use more strategy types than the students in the Low Group since the High Group employed all the nine strategies. All these findings tend to suggest that there exists a positive relationship between the testees’ reading proficiency and the frequency of their use of strategies. In other words, increased use of strategies can lead to an increase in reading proficiency. Gao and Gu (2008) interpreted the difference of two groups in strategy adoption in their study as an indication that proficient readers are more active in their attempt to decode the text than less proficient ones.

What has been reflected in Table 6 is that bottom-up processing strategies are most frequently employed by both groups with 54 cases in the High Group and 40 in the
Low Group. The attribute of the banked cloze test, as mentioned above, seems to provide testees with the opportunity to deal with items in the clause level, which can partly account for the lack of significant difference in the two groups’ adoption of bottom-up processing strategies. Of three categories of strategies, the least common one employed by the both groups is top-down processing strategies and especially so by the Low Group, who only employed these strategies 10 times. As has been discussed in section 2.1.2, in a top-down reading approach, the reader should be an active participant and information processor in the reading process. With this in mind, it seems safe to conclude the Low Group students are not as active and involved as the High Group students in the cloze test reading processes. Test-wise strategies occurred 62 times in testees’ test-tasking processes in this study. Test-wise processing strategies are defined by Crehan, et al. as “testees’ capacity to utilize the characteristics and formats of the test and/or test taking situation to receive a high score” (1974, cited by Gao & Gu 2008:13). In view of this, the testees’ frequent use of these strategies can be possibly attributed to the characteristics and the format of the banked cloze test. Meanwhile test-wise strategies are sometimes resorted to when testees fail to get possible clues or information from the context and this can give possible reasons why in this study the Low Group students employed them more than the High Group did. More detailed analysis of the nine strategies is conducted in the following sections.

3.3.1 Bottom-up processing strategies

A bottom-up reading model is a decoding process of the written information and passes information along in one direction only (see section 2.1.1). Three common strategies in a bottom-up reading model and their employment by the two groups are displayed in the following table.

<table>
<thead>
<tr>
<th>Bottom-up strategies</th>
<th>The High Group</th>
<th>The Low Group</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guess the unknown words</td>
<td>7</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>admit failure to understand unknown words</td>
<td>2</td>
<td>14</td>
<td>16</td>
</tr>
<tr>
<td>Analyze the sentence structure</td>
<td>45</td>
<td>25</td>
<td>70</td>
</tr>
</tbody>
</table>

The above table highlights the importance of the strategy of analyzing the sentence
structure. It was used more frequently than the other two by the two groups, which lends support to the findings of Gao and Gu (2008). This result also corresponds with the above analysis of clause level information sources where many testees reported that in a banked cloze test an easy and fast way to get the possible answer was analyzing the sentence structure to identify the part of speech of the deleted word and then seek the option with such a part of speech. It again confirms that test-taking processes can be influenced by the test format. The High Group’s high adoption of this strategy, as was explained by Gao and Gu (2008) in their research, may possibly be due to their better vocabulary knowledge than those of the Low Group. According to the interview with students of the High Group, in some cases, they could readily get the right answers with their knowledge of the words in the bank and their analysis of the sentences.

The Low Group students tended to be frustrated or even lost when meeting unknown words. In this study there are 14 cases in which they admitted their failure to understand unknown words. It is likely that their reading model may partly be responsible for their lexical problems. They tend to read the text word by word. As Stanovich (1980) mentions (in section 2.1.3), good readers tend to rely on context for fluency while poor readers for accuracy. The less proficient students are more concerned with the exact meaning of each word and thus they are more likely to encounter more unknown words in the reading process. Their heavy reliance on the understanding of the individual word suggests that they prefer a word-level model of reading. On the other hand they seem less likely to return to guess strategies as there is only one case involving guessing the meaning of unknown words. It is not to say that they have no sense of this strategy or that they have other more effective ways to deal with unknown words. It is perhaps more accurate to speculate that they have the sense that it does not work well to them. This speculation was correspondent with the information revealed from the interviews with the Low Group students. Anyway it is a fact that guessing from context in reading cannot be easily achieved. A critical factor mentioned by Nation (2001) is that at least 95% of the words in the running text should be known to learners for the guessing to happen. As far as the Low Group students in the present study are concerned, their low level of English proficiency, especially their comparatively limited vocabulary size, impedes them from acquiring word meanings by guessing from context.
However, proficient readers would approach unknown words in a different way. As Read (2000) suggests, readers do not have to understand every word in order to extract meaning from a text satisfactorily. Some words can be ignored while the meaning of others can be guessed by using contextual clues, background knowledge of the subject matter and so on. What proficient students did is much consistent with Read’s opinion. They tended to use various and combined approaches to solve their vocabulary problems such as “resorting to textual information, fleshing it out, making it concrete” (Gao & Gu 2008: 13). Therefore, unknown words would not constitute a big barrier or threat for them to comprehend the text. By employing approaches mentioned above they can cope with unknown words successfully and possess a smooth reading process. Thus, it can be speculated on that they seem to have a more meaning-based approach with the main focus on the global understanding of the text instead of individual word as the less proficient students do.

3.3.2 Top-down processing strategies

The top-down processing model (see section 2.1.2) suggests the processes utilize background knowledge and schemata combined with conceptual ability and process strategies, and is hence concept driven (Carrell 1998). The following are the details of the three top-down strategies employed by the two groups.

<table>
<thead>
<tr>
<th>Top-down strategies</th>
<th>The High Group</th>
<th>The Low Group</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preview the text</td>
<td>6</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>Evaluate critically the text</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Predict the meaning of the text</td>
<td>27</td>
<td>10</td>
<td>37</td>
</tr>
</tbody>
</table>

As is shown from the above table, of the three listed strategies, predicting the meaning of the text is most commonly used by students in the present study. Gao and Gu (2008) employed Goodman’s statement that reading is a psycholinguistic guessing game to explain the similar phenomenon in their study. That is to say, readers guess, predict or hypothesize the meaning of texts on the basis of textual information, and confirm those predictions by relating them to their past experiences and knowledge of the language, just as one student in the High Group reported: “When I browse the text, I
notice there are several rock and roll. It immediately reminds me of knowledge of this music and I guess this text must be about this music type”. It suggests that the testees want to be actively and deliberately involved in the reading processes. The interaction of the testees’ language knowledge and topical knowledge of the context can greatly promote their comprehension of the text.

However the degree of activeness in using predication strategy is quite different in these two groups. There are 27 cases in the High Group and only 10 cases in the Low Group using this strategy. This implies that students in the High Group are more inclined to have an overall understanding of the text. As was revealed from the interview with High Group students, they thought the prediction of the text could not only help to awaken their former knowledge but also help to narrow down the meaning of words when they read the text, which could promote the effectiveness of the reading process, which matches Aitchison’s (2003) theory (see section 2.3.3) that words are fuzzy in meaning and most of them can be meaningful only in fixed context. In other words, context can help to fix the meaning of words. Furthermore, the High Group students tried to minimize dependence on visual detail and did not want to passively decode the written words. This also gives the explanations to why these six students all adopted the strategy of previewing the text before answering the items. This is in sharp contrast to the phenomenon in the Low Group as none of the students there adopted this strategy. When asked of the reason, some of them just reported that according to their previous testing experience, it was useless and time-consuming. As has been discussed above, less proficient students tend to have a word-level reading model and they are used to processing the text word by word, which is likely to hinder them to have a global understanding of the text. Influenced by their reading model and limited vocabulary size, it is not so easy and effective for them to skim and skip to get the idea of the text.

Another strategy that was not adopted by the Low Group students is evaluating critically what is read, which was less frequently used in the High Group either. The reason can be the limited testing time, which may prevent them from thinking deeply of the text. One student reported: “the sole purpose in the test is to find out the correct answer not anything else”. This may indicate that the reading processes in the test situation can be quite different from that in real life.
### 3.3.3 Test-wise processing strategies

Test-wise strategies have more to do with testees’ skills or techniques to obtain scores in test taking situation than to testees’ linguistic knowledge. The following give the details of these three strategies.

**Table 9 Frequencies of test-wise strategies employed by the two groups**

<table>
<thead>
<tr>
<th>Test-wise strategies</th>
<th>The High Group</th>
<th>The Low Groups</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preread the options</td>
<td>18</td>
<td>6</td>
<td>24</td>
</tr>
<tr>
<td>Use the options to match a blank</td>
<td>5</td>
<td>18</td>
<td>23</td>
</tr>
<tr>
<td>Guess blindly</td>
<td>1</td>
<td>14</td>
<td>15</td>
</tr>
</tbody>
</table>

Table 9 presents the fact that the total employment frequencies of the first two strategies – preresad the options and use the options to match a blank – are almost the same with 24 to 23. However, they differentiate greatly in the two groups. The High Group tends to preresad the options more frequently than use options to match, while the situation in the Low Group is totally opposite. The result again confirms what has been discussed above: the High Group students are more active in the attempt to use possible clues and strategies to make predictions of the text. They would like to have a global understanding of the text. When reading the options they may predict the possible language situations and distinguish the speech part of the words. However the high adoption frequency of the strategy – preread the options -- seems quite different from that revealed in the study of Gao and Gu (2008), where they found that this strategy was much less employed by the testees. The interviews with the High Group students provided plausible reasons that the difference may lie in the time limit. As one student mentions, “it can save time in testing situation. Some of the options are so familiar to me that I can bear them in mind when reading the text and to fill in the suitable blanks quickly and effectively”. However, the Low Group students prefer to match the blanks with the main focus on the meaning or part of speech of the options. Due to their limited linguistic knowledge, it does not seem possible for them to keep the options in mind when reading, as the proficient students did. The less proficient students would like to eliminate what seems unreasonable or not understandable and then based on their grammatical knowledge, match the left options to the particular blanks. This strategy seems comparatively passive. As has
been shown in the above analysis of information sources, they prefer to get information on the clause level and this quite conforms to the strategies they adopted. Not surprisingly the strategy - guessing blindly – was most frequently adopted by the students of the Low Group. They just randomly chose one answer without any particular consideration. It is not surprising that most often they cannot get the right answer with this strategy. Many factors may contribute to this particular adoption. The most possible reason may lie in their limited vocabulary knowledge, their deficiency in employing other strategies and even test time constraints.

3.4 Summary of test-taking processes for the banked cloze test

Two important aspects in test-taking processes for the banked cloze test have been analyzed in the above section: information sources and strategies, which give an answer to the first research question of the present study.

Both groups employ clause level information more frequently than any other information sources, which seems a bit different from previous studies on other cloze tests (e.g., Yamashita 2003). The characteristics of the banked cloze test may attribute to this phenomenon. Because the findings of the present study is quite correspondent with the study of Gao and Guo (2008) on a banked cloze test, a speculation can be made that there exits a possibility that the format of the banked cloze test can promote students to seek information on the clause level. It also gives support to the claim that the test-taking processes can be influenced by test types as well as the proficiency of test takers as mentioned by Yamashita (2003) in section 2.2.3.5. The analysis of information sources and strategies manifests that the processes employed by proficient students are quite different from those used by students of a lower level of proficiency.

The High Group students draw on text level information combined with other information sources more frequently than the Low Group students and they show a clear preference for bottom-up combined with top-down processing strategies to approach the text. They prefer a global understanding of the text and rely on lexical details to confirm their predications or expectations. By utilizing both local context and high-level information, they are actively involved in searching for useful
information sources or clues to help them interpret what is conveyed by the written words. On the other hand, the Low Group students seem more confined to bottom-up processing strategies, while the main focus, especially in testing situation with time constraints, is on the separate word options and the direct restoration of the deleted words instead of making an endeavor to understand the text. They tend to utilize only the local context and have very limited sources of knowledge to draw on. Thus, their information sources are quite unitary and mainly on the clause level. It seems that the Low Group students have some sensitivity about the use of some information sources and strategies but they have more difficulty in integrating information from different sources and they are less successful than proficient students in their attempts. The result gives us reasons to conclude that proficient students are prone to a context-based and meaning-focused interactive reading model while less proficient students often employ a word-based bottom-up reading process.

What has been revealed in the present study is quite correspondent with the research conducted by Gao and Gu (2008) on a banked cloze test, from which one might hypothesize that the banked cloze test can generate comparatively consistent test-taking process models. Although because of the difference in methodology, test materials, test time limit and participants, there exists some discrepancy in the adoption of the information sources and the strategies in the two studies, the overall tendency of test-taking processes for banked cloze tests are very much similar. Therefore it seems safe to conclude that banked cloze test can test students’ low-order skills as well as high-order skills. It has a good degree of construct validity as it can measure such vocabulary application ability and text comprehension ability as is designated in the CET-4 test specification (see section 2.2.3.5).

4. Analysis of questionnaire 2

The analysis in this part is conducted on the data collected from questionnaire 2 and the brief follow-up interviews. Questionnaire 2 was designed for each participant to choose the top three vocabulary acquisition strategies he or she usually adopts in their second language learning. The purpose is to elicit the main way they acquire vocabulary. The display of the results will help to cover the second research aim of the present study.
4.1 Vocabulary acquisition strategies of the High Group students

Data concerning the High Group were collected and sorted out. No new strategies were added by the participants on the questionnaire. The following table presents the detailed information about the vocabulary acquisition strategies preferred by the six students in the High Group.

Table 10 Vocabulary acquisition strategies chosen and rated by the High Group students

<table>
<thead>
<tr>
<th>Vocabulary acquisition strategies</th>
<th>H1</th>
<th>H2</th>
<th>H3</th>
<th>H4</th>
<th>H5</th>
<th>H6</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Through reading books</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>3</td>
<td>16</td>
</tr>
<tr>
<td>(2) Through communication</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>(3) Through listening</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>(4) Through incidental focus in daily life</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>(5) Learning words in the same category</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td>(6) Through the transition of word meanings</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>(7) Through word cards</td>
<td>2</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>(8) Through word lists</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>(9) Through word lists</td>
<td>1</td>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td>2</td>
</tr>
</tbody>
</table>

*H1-6 stands for one of the students in the High Group

What is distinguished in Table 10 is that the six students almost unanimously gave high points to the first strategy - learning vocabulary through reading books, which corresponds with some established theories about second language learning (see e.g., Mason & Krashen 1997; Nuttall 1996). They all suggest that learning vocabulary from context should be one of the most efficient and effective strategies.

Four out of six students regard this strategy as the most important and useful one. In their opinion, learning through reading is very attractive. They need not to be locked into an inflexible class program; instead they can learn material at their own level and extensive reading also provides the opportunity for them to learn outside the classroom. They can at the same time follow their own interests choosing what to read, which they think can help increase their motivation for learning. What is more, they enjoy guessing the meaning of unknown words in meaningful context and it is not that difficult but tends to be fun and contributes to word long-term retention in memory. This strategy can easily get support from Krashen’s comprehensible input theory. As
Krashen (1985) claims, it is only by understanding messages or by receiving comprehensible input that humans acquire language. If a reading material is just beyond the learners’ understanding, it can be a good source of input. If learners are provided with input of the right quality and quantity, they will acquire them automatically. As students can choose appropriate reading materials to have comprehensible input, the acquisition of vocabulary tends to be fruitful.

The second strategy that the students prefer is learning words in the same category. Based on Aitchison’s four types of association (see section 2.3.4), words in the same category in this study refer to words that cluster together with associative links. One of the six students thought it is the most important strategy while two of them did not list it in their top three. As has been discussed in section 2.3.4 (see e.g., Aitchison 2003), the tight association between words is much helpful for learners to learn vocabulary as it may provide the fastest way for learners to store and retrieve the words. When the two students were asked about their opinion about this strategy, they replied that they had tried before, but it seemed the categorization did not help at all; instead, it usually caused confusion. These claims are correspondent with what has been mentioned in section 2.3.4. Words in the same category share too many similarities. They may look alike or sound alike and it is easy for learners to mix them up before they are rooted in memory. Tinkham (1993) (see section 2.3.4) gives further support for this potential danger in associative activities. He mentions that lists of words which are strongly associated with each other – like opposites (rich, poor) or word sets (shirt, jacket, sweater) – are significantly more difficult to learn than lists of unrelated words, because of the cross-association that occurs among the related words. The deficiency of this strategy was confirmed by other students in this group. But still they thought it could be very helpful if appropriately used. It is not desirable to learn two new words in the same category by putting them together, but it could be a good way to associate one new word with another one in the same category but already deeply rooted in memory. This kind of link could be strong and effective.

There is no significant distinction among the rest of the strategies except for strategies (3) and (6) as no students listed them among their top three useful strategies. As was reported by the students, learning vocabulary through listening was too difficult and time-consuming for them. This incidental learning of words mainly depends on
repeated exposure. The process of acquisition is quite slow, and there is no way to predict which words will be learnt, when nor to what degree. They all mention they like to listen to English songs, and by listening to the same song repeatedly they could become familiar with the pronunciation of certain words. However without visual involvement, it still seems quite difficult to make acquisition occur. Thus, this could be a supplementary method for learning vocabulary, but not the main one. The explanations apply to learning vocabulary through transition of word meaning. They thought that compared with other strategies it was not as effective and efficient.

4.2 Vocabulary acquisition strategies of the Low Group students

Data concerning the Low Group were collected and sorted out. No new strategies were added by the students on the questionnaire. The following table displays the detailed information about vocabulary acquisition strategies preferred by the six students in the Low Group.

Table 11 Vocabulary acquisition strategies chosen and rated by the Low Group students

<table>
<thead>
<tr>
<th>Vocabulary acquisition strategies</th>
<th>L1</th>
<th>L2</th>
<th>L3</th>
<th>L4</th>
<th>L5</th>
<th>L6</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Through reading books</td>
<td>2</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>(2) Through communication</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>(3) Through listening</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>(4) Through incidental focus in daily life</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>(5) Learning words in the same category</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>(6) Through the transition of word meanings</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>(7) Through word cards</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td></td>
<td>10</td>
</tr>
<tr>
<td>(8) Through words internal formation</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>(9) Through word lists</td>
<td>3</td>
<td>1</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>15</td>
</tr>
</tbody>
</table>

*L1-6 stands for one of the six students in the Low Group

Table 11 illustrates what the Low Group students prefer most is learning vocabulary on the word lists by rote learning, while this way was by and large discarded by the High Group students as only two points were given. However, the two groups tend to agree on the usefulness of learning through word cards as it ranks second in the Low Group and third in the High Group. These two methods enjoy popularity among Chinese students, even though they are both completely decontextualized vocabulary...
Although learning from word lists and word cards have certain advantages and have their own values, the deficiencies should not go unnoticed (see e.g., section 2.3.7 Read 2000; Zimmerman 1997). As typical decontextualized vocabulary learning techniques, they have long been the target of criticism. Learning from the card is not good for remembering (Nation 2001) and this was proved by students in the present study. When talking about the disadvantages of these two techniques, they tend to claim that words acquired in these ways are likely to be forgotten soon and that it is not useful for long-term retention. What is more, Nation (2001) mentions that learning from word cards does not help with the use of the word. Due to the limited space of a card, learners usually write down only the most basic word meaning in the back of the cards using their first language. Without any hints of its usage, even if the learners have memorized the basic word meaning, they still do not know how to use the word. This is why many teachers discourage their students from memorizing lists of isolated words or using word cards.

However, many students in the Low Group mention that these are the most direct and convenient ways for them to get familiar with the target words. In an intensive reading class, each text is followed by a word list. In order to fulfill the requirements from the teachers and to understand the texts in the class, these students prefer to spend great time learning words from lists instead of reading the texts to acquire them. As they reported it is more direct and time-saving and especially effective in dealing with exams. They added that learning from word cards is simple. It does not require many skills to use this strategy. Furthermore, as cards can be easily carried, they just can go through a set of cards looking at each foreign word, trying to retrieve its meaning at any time. If it cannot be retrieved, they can simply turn the card over and look at the translation. It is easy and convenient and somewhat effective. Apart from that, for some of them who are not very interested in learning English or have no sense of autonomous learning, this technique can help force them to pay attention to the words they have to learn. Though it might not be so efficient, it helps them more than using the incidental method of learning words. Especially for those who are preparing for examinations, rote leaning can actually help them enlarge their vocabulary at least in recognition level in a short period of time. Thus learning word
from word lists or word cards by rote is most frequently used by students particularly on the eve of examinations. This tendency can actually find support from some research. As Cohen (1987, cited by Read 2000) mentions, mnemonic techniques are very effective methods for gaining an initial knowledge of word meanings in a second language. As the participants in this study are in China, they totally lack a natural acquisition environment and they have a very limited exposure to English outside of the classroom. Thus systematical learning of individual words actually can provide a good foundation for vocabulary development and can be a very good complement to learning from the context. That also gives explanations why learning through word cards strategy can rank third in the High Group, though the total point is greatly smaller than that of the Low Group. As students in the High Group added, when learning from context, they might focus on the meaning of the unknown word and try to guess what it means in the context, with no particular attention given to the spelling of the word. Word cards can make them focus on the spelling and help them consolidate their knowledge of word and make it more completely and permanently.

There are three strategies the Low Group students have not touched upon. These are learning through communication listening and learning through incidental focus on form. As those students reported it was not possible for them to learn new words through communicating with others. They rarely had a chance to talk with native speakers. In fact, besides using English to answer the teachers’ questions in class, they seldom had the necessity to use English. Occasionally they would talk with other students in class; due to their relatively equal low proficiency level and limited vocabulary size, the chance to acquire new words in such communication was very small. This can also partly explain why they did not choose learning through incidental focus on form in daily life. Their contact with English is mainly confined to the classroom setting. Without intentional focus, it is not possible for them, especially for those whose purpose to learn English is to pass exams, to acquire vocabulary incidentally in daily life.

4.3 The top three vocabulary acquisition strategies of the two groups

As can be seen from the above, the distribution of Table 11 is quite different from that of Table 10, which can be an indication that in employing vocabulary acquisition
strategies the High Group students are different from the Low Group students in type and amount. The following are the top three strategies employed by each group. The table highlights the difference as well as the similarities in the two groups.

Table 12 Top three vocabulary acquisition strategies of the two groups

<table>
<thead>
<tr>
<th>The High Group</th>
<th>The Low Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Through reading books</td>
<td>Through word lists</td>
</tr>
<tr>
<td>(16 points)</td>
<td>(15 points)</td>
</tr>
<tr>
<td>Learning words in the same category</td>
<td>Through word cards</td>
</tr>
<tr>
<td>(7 points)</td>
<td>(10 points)</td>
</tr>
<tr>
<td>Through word cards</td>
<td>Learning words in the same category</td>
</tr>
<tr>
<td>(4 points)</td>
<td>(5 points)</td>
</tr>
</tbody>
</table>

As the table shows, the biggest distinction comes from the number 1 strategy in the two groups. The High Group gives their greatest agreement to the strategy learning through reading books followed by learning words in the same category and learning through word cards. However, the Low Group thinks learning through word lists is the most useful one followed by learning through word cards and learning words in the same category. It can be seen that both groups acknowledged the usefulness of the latter two strategies. However the points given by different groups to them show that the role these two strategies play in students’ vocabulary acquisition is far from the same.

As has been discussed in the above sections, learning vocabulary through reading and rote learning from word lists can be regarded as two extremes concerning their relation to contextualization. Learning through reading books is listed as the most contextualized method and learning through word lists by rote learning as the most decontextualized method in the questionnaire. According to their choice and their report in the interview, the High Group students like to put words in context and prefer learning vocabulary in context, which help them to gain complete knowledge of words. What is more, they use some direct vocabulary learning strategies such as word card learning to compensate for the potential disadvantages of this incidental learning style such as uncontrollable occurrence of the words, lack of repetition and so on. As good supplementary techniques to incidental vocabulary learning from extensive reading, these direct learning methods can also help to gain an initial impression of a word and help to consolidate words that are encountered in the process of incidental learning. On the whole it seems that the High Group students
tend to use context-dependent vocabulary acquisition strategies combined with context-independent one.

There seems to be a whole range of reasons for the Low Group to choose rote learning as the most useful one. First of all, they are not as ambitious as the proficient students. Due to their poor English proficiency, they tend to lose interest in English learning, which further hinders the progress in their English learning. They are in a kind of vicious circle. They lack initiatives to adopt learning strategies and their attitudes to them are not as positive as the proficient students. Secondly, in order to use some of the strategies efficiently, they should be equipped with certain skills, such as selecting information, guessing, knowing a certain amount of vocabulary. Having few of these prerequisites makes it hard for them to use some strategies effectively. As has been analyzed above, the less proficient students recognize certain strategies but they cannot successfully use them as the proficient students do. Thirdly they comparatively lack autonomous learning motivation. For some of them, academic pressure is the sole motivation for them to learn English. To pass exams is their ultimate aim, not the proficiency in English. In the light of this, they would not spend time reading extensively to acquire vocabulary which they think is time-consuming and the effect is not as obvious as that of rote learning in short time. They tend to choose the easiest and direct way to memorize words to deal with exams. As the next two strategies chosen by the Low Group students are also decontextualized, it can be concluded on the whole that less proficient students tend to be more concerned with context-independent or decontextualized techniques to acquire vocabulary.

5. Discussion and implications for vocabulary acquisition

Based on the analysis in the above sections, it seems reasonable to hold, that the proficient students are greatly different from the less proficient students in not only the way of processing a text but also the way they acquire vocabulary. This section discusses the possible relationships between students’ test-taking processes and their preference for vocabulary acquisition strategies within each group. Then implications for vocabulary acquisition are speculated on.
5.1 Correlation revealed in the High Group and the Low Group

Based on the information revealed from the questionnaires, we know that the proficient students tend to have a context-based test-taking process. It indicates that they prefer an interactive reading model. As to the way they acquire vocabulary, they lay great emphasis on learning through reading books. Meanwhile they do not neglect the role of a direct vocabulary learning strategy because of its practicality and gained values. That is to say, the main way in which they acquire vocabulary is heavily context-dependent while at the same time they tend to use decontextualized vocabulary acquisition techniques to help fossilize words in their memory. As the test taking processes and vocabulary acquisition strategies in the High Group are both context-related, it implies that there is a correlation between these two factors.

On the other hand, the test-taking processes of the less proficient students are mainly word-based. They possess a bottom-up reading model. It follows that they tend to interpret the text word by word. In terms of vocabulary strategies, they rely heavily on word list learning and word card learning by rote, which are almost the most decontextualized techniques of all. In the light of the fact that they seem to prefer to learn words in isolation and they often employ word-based reading approaches, a speculation can be made on the correlation between the way they acquire vocabulary and the way they process texts.

While all of the above analysis may be true, we can see that there is a positive correlation between these students’ test-taking processes and the way they acquire words. Although the relationship can not be a cause-effect one, we may still conclude, at least seen from the present study, that the way students acquire vocabulary has an effect on the way they process texts.

Let us look more closely at how students’ vocabulary acquisition techniques might exert influence on their reading processes. It can be reasonably assumed that if the input methods of vocabulary are different, students’ perception of words tends to be different. Students who generally acquire vocabulary in contextual situations tend to conceive words as integrated elements of whole texts and words seem to interact in a natural way with other components of language knowledge. Students think that the
way they interpret a word is significantly influenced by the context in which it occurs and the context can connect the word knowledge to the knowledge that they already have. Students’ experience of acquainting themselves with words from the context can help activate cognitive recognition of these words in a particular text. We may speculate that words acquired in contextual situations tend to be stored as blocks in mind. Meanwhile when recording these new words, students record together and in sequence those words that regularly occur in precisely that grouping. To put it another way, the mental lexicon is efficiently organized in these students’ brain. The processes of producing the word are more related to the way of receiving the word. Students tend to have memorized sequences (Pawley & Syder 1983, cited by Read 2000) in the brain. Instead of reconstructing these each time when they are in need, students can frequently draw on these ready made sequences. By activating a node in the lexical-semantic network, they can also activate, automatically and subconsciously, connected nodes. This enables students to process a text more effectively. Ashcraft (1994) in section 2.3.4 claims that, if the semantic relatedness is high, it takes short time for learners to retrieve lexical items. Thus, contextualized vocabulary acquisition strategies tend to help students to gain access to their knowledge of the text faster and more automatically. In this sense, the adoption of contextualized vocabulary acquisition strategies tends to contribute to the smoothness of the reading processes and comprehension of the text, not surprisingly, to boost students’ performance on tests. This line of argument has been backed up by the result of the present study. Though the better performance of the High Group students can not totally attribute to their adoption of certain vocabulary acquisition strategies, we can deduce, at least, from the present study that the way the students acquire vocabulary facilitates their reading processes and helps them find the most efficient and effective way to understand word meaning and thus, contributes to their better performance on the test.

On the contrary, students who generally acquire vocabulary in decontextualized situations tend to conceive words as discrete parts or separate segments of a text instead of embedded parts of a meaningful situation. They generally fail to treat a text as a whole and fail to recognise that words are in relation with their neighboring lexical items to be meaningful and thus, they are apt to identify parts of the text. Influenced by the decontextualized way to acquire vocabulary, they are likely to separate words from their connection with other components of language ability.
Instead they are inclined to think that words occur by themselves or in isolated sentences as single units. Words acquired in this model are likely to be single and isolated in students’ mental storage. When reading a text, it is possible that this mental lexical storage will direct students to process the text word by word, which may impede the smoothness of their reading processes and make it slow and ineffective. To make it worse, it will add difficulties to students’ global understanding of the text and further influence their performance on the test. In addition to that, new vocabulary is hard to embed in the students’ minds without their own processing in a certain context. It cannot be retained in the brain without its linkage to existing knowledge. With only initial impression of words from decontextualized rote learning, students tend to encounter more difficulty in figuring out the meaning of a word from its context. Thus, seen from the present study, students’ rote learning in decontextualized situations tends to have a negative backwash on their reading processes and even their performance on tests.

5.2 Implications for vocabulary acquisition

The above discussion gives us implications that to improve students’ reading ability and English proficiency, certain vocabulary acquisition strategies should be recommended or even explicitly taught to them. In fact, learners’ strategies are an important factor that can affect foreign language acquisition. They will help learners become more autonomous and make the learning process more effective. Research and theory in second language learning strongly suggest that learners should be taught how to continue to improve their vocabulary on their own by teaching them appropriate vocabulary learning strategies in contrast to simply letting students learn vocabulary in whatever manner they themselves may devise (Oxford et al. 1990). O’Malley et al. (1985) mention that good language learners use a variety of strategies to assist them in gaining command over new language skills. By implication, less proficient learners should be able to improve their skills in a second language through training on strategies evidenced among more successful language learners. As has been revealed in the present study, the vocabulary acquisition strategies adopted by the proficient students are mainly contextualized techniques combined with some decontextualized methods as complementary tools. These strategies seem, in the present study, to have exerted a more positive effect than the solely decontextualized
methods adopted by the less proficient students in their test-taking processes and thus, boost the performance on the test. In the light of this, the vocabulary acquisition strategies adopted by the proficient students should be the optimal options for students to employ, especially the learning through reading strategy, which really can help learners to have ready access to word knowledge and be able to exploit and draw on it effectively in performing language-use tasks, thus to improve learners’ overall language proficiency. Furthermore, by choosing appropriate reading materials, it will be fun and effective and thus promote learners’ language acquisition.

Even for those whose sole purpose for learning English is to deal with exams, to adopt the suggested vocabulary strategies is still of great necessity because of the broader trend of vocabulary testing. Vocabulary knowledge tends to be assessed indirectly through the test-takers’ performance on integrative tasks. Vocabulary testing measures are more embedded, comprehensive and context-based in nature (Read 2000). Decontextualized or isolated measurements are gradually fading out in many important or wide-scale tests. Learners need to show that they can use words appropriately rather than just demonstrating that they understand what a word can mean. Thus, even for more practical and direct reasons, to adopt context-based vocabulary acquisition is beyond all questions a good suggestion. However it does not follow that a decontextualized technique is useless or should be abandoned. As Nation (2001) argues, learning vocabulary from context should not be seen as something opposed to the direct intentional learning, instead they are complementary activities, each one enhancing the learning that comes from the other. As has been shown from the proficient students’ strategy pattern, a combination of strategies with the main focus on the contextualized vocabulary acquisition method seems to function most effectively and should be the most desirable method. Oxford and Crookall (1990) group techniques for vocabulary learning into four categories: (1) fully contextualized: reading, speaking, listening and writing; (2) semi-contextualized: word grouping, association, semantic mapping, and so on; (3) decontextualized: word lists, flashcards, dictionary use; (4) adaptable: structured reviewing. Based on their argument, contextual, semi-contextual, and decontextual techniques are all required to facilitate vocabulary learning. Vocabulary learning should involve various dimensions of the mental lexicon. A range of strategies are necessary to enhance vocabulary consolidation. Nation (2001) also points out that a well-balanced language learning
programme has an appropriate balance of opportunities to learn from message-focused activities and from direct study of language items, with direct study of language items occupying no more than 25% of the total learning programme. In general, it holds that the employment of vocabulary learning strategies, even direct memorization, can facilitate and enhance vocabulary acquisition. The importance is to wisely combine them to make language acquisition most effective.

6. Conclusion

The present study attempts to find out students’ test-taking processes for banked cloze tests and the way they acquire vocabulary. The possible correlation between these two factors has been investigated and implications for vocabulary acquisition have been suggested. With regard to test-taking processes, what the present study demonstrates conforms to that revealed in the study conducted by Gao and Gu (2008) on a banked cloze test. This conformation can give indication that banked cloze tests tend to produce comparatively consistent test-taking processes. Furthermore, the present study shows that the proficient students are prone to an interactive test reading model and context-dependent vocabulary acquisition strategies, while the less proficient students seem to more prefer a bottom-up test reading model and context-independent vocabulary acquisition strategies. It turns out that the way students acquire vocabulary may have an effect on students’ test-taking processes. Contextualized vocabulary acquisition strategies combined with decontextualized ones tend to facilitate students’ test-taking process while solely decontextualized vocabulary acquisition strategies tend to impede students’ test-taking process. The results suggest that appropriate strategies might offer benefits to fulfill the goal to acquire a language or to pass exams, thus contextualized vocabulary acquisition strategies - especially learning through extensive reading in combination with decontextualized vocabulary acquisition strategies - should be recommended or even explicitly taught to learners.

However, we have to realize that the test-taking processes adopted can be influenced by test forms and students’ own English proficiency and other factors. The correlation revealed in the present study comes from a small sample of students and cloze tests, which call for cautions in interpreting the results. Besides, using questionnaires to collect data has its limitations. For example, sometimes questionnaire items are more
likely to elicit learners’ beliefs about what they do rather than what they actually do. Therefore, more quantitative and qualitative research with a greater variety of participants, cloze items and different methodologies needs to be conducted on test-taking processes for banked cloze tests and how the way students acquire vocabulary exerts influence on their test-taking processes. In this way, more generalizable results could be achieved.
List of References

Primary material
<http://edu.163.com/09/1214/16/5QGQ8L7D002940M9_6.html>

Secondary material


students. Language Learning, 35, 21-46.


<http://www.en.cet.edu.cn/dgdisplaynews.asp?id=298>


Appendix 1

The Banked Cloze Test

Directions: In this section, there is a passage with ten blanks. You are required to select one word for each blank from a list of choices given in a word bank following the passage. Read the passage through carefully before making your choices. Each choice in the bank is identified by a letter. You may not use any of the words in the bank more than once. Please finish the test in ten minutes.

Questions 1 to 10 are based on the following passage.

Rock and roll is a genre of popular music that evolved in the United States in the late 1940s and early 1950s. Its (1) lie mainly in blues, rhythm and blues, country, folk, gospel, and jazz. The style subsequently spread to the rest of the world and developed further, leading ultimately to (2) rock music.

The term “rock and roll” now covers at least two different meanings, both in common usage. The American Heritage Dictionary and the Merriam-Webster Dictionary both (3) rock and roll as synonymous with rock music.

(4), Allwords.com defines the term as referring specifically to the music of the 1950s.

Classic rock and roll is (5) played with one or two electric guitars, a string bass or an electric bass guitar, and a drum kit. In the (6) rock and roll styles of the late 1940s, either the piano or saxophone was often the lead instrument, but these were generally (7) or supplemented by the guitar in the middle to late 1950s.

The massive popularity and eventual worldwide view of rock and roll gave it a (8) social impact. Far beyond simply a musical style, rock and roll, as seen in movies and in the new medium of television, (9) lifestyles, fashion, attitudes, and language. It went on to spawn various sub-genres, often without the initially (10) backbeat, that are now more commonly called simply “rock music” or “rock”.

<table>
<thead>
<tr>
<th>A) define</th>
<th>B) characteristic</th>
<th>C) unique</th>
<th>D) roots</th>
<th>E) usually</th>
</tr>
</thead>
<tbody>
<tr>
<td>F) basically</td>
<td>G) earliest</td>
<td>H) influenced</td>
<td>I) followed</td>
<td>J) modern</td>
</tr>
<tr>
<td>K) explanation</td>
<td>L) Conversely</td>
<td>M) replaced</td>
<td>N) prepare</td>
<td>O) seldom</td>
</tr>
</tbody>
</table>
Appendix 2

Questionnaire 1

Questionnaire about the information sources and strategies used in the reading process for the banked cloze test

Grade of CET-4______

Thank you for participating in this questionnaire. Please answer it immediately after the completion of the banked cloze test.

Please choose from the below one or more information sources and strategies you have used for each item during the cloze process. Put the marks such as I1, I2 etc. into the corresponding brackets after each item. If no information or strategy is used for certain items, you can leave it blank. You can check the finished items to remind you of the process you have just experienced but try to stick to your original train of thought.

Information sources:

(I1) Clause level information
(I2) Sentence level information
(I3) Text level information
(I4) extra-textual level information

Strategies:

(S1) Guess the unknown words
(S2) admit failure to understand unknown words
(S3) Analyze the sentence structure
(S4) Preview the text
(S5) Evaluate critically the text
(S6) Predict the meaning of the text
(S7) Preread the options
(S8) Use the options to match a blank
(S9) Guess blindly

For item 1 I have used information source(s): ( )
I have used strategy or strategies: ( )

For item 2 I have used information source(s): ( )
I have used strategy or strategies: ( )

For item 3 I have used information source(s): ( )
I have used strategy or strategies: ( )

For item 4 I have used information source(s): ( )
I have used strategy or strategies: (   )
For item 5 I have used information source(s): (   )
I have used strategy or strategies: (   )
For item 6 I have used information source(s): (   )
I have used strategy or strategies: (   )
For item 7 I have used information source(s): (   )
I have used strategy or strategies: (   )
For item 8 I have used information source(s): (   )
I have used strategy or strategies: (   )
For item 9 I have used information source(s): (   )
I have used strategy or strategies: (   )
For item 10 I have used information source(s): (   )
I have used strategy or strategies: (   )
Appendix 3

Questionnaire 2

Questionnaire about the strategies used in Vocabulary acquisition

Grade of CET-4_____ 

Thank you for participating in this questionnaire about the strategies used in second language vocabulary acquisition.

Please, based on your process of learning vocabulary, pick up and rate three most useful ones among the following strategies. 3 indicates the most useful and 1 the least useful one.

1. Learning vocabulary through extensive reading. (  )
2. Learning vocabulary through communication. (  )
3. Learning vocabulary through listening. (  )
4. Learning vocabulary in daily life from incidental focus on the words. (  )
5. Learning vocabulary of the same categorization together. (  )
6. Learning vocabulary through the transition of word meanings. (  )
7. Learning vocabulary through word cards (  )
8. Learning vocabulary according to its internal formation (  )
9. Learning vocabulary on the word lists by rote learning. (  )
10. Please list other strategies you think are among your own top three strategies but have not been mentioned above. Please describe them specifically and give them appropriate points.