

AN EMPIRICAL STUDY OF THE ROLE OF BACKGROUND KNOWLEDGE IN MEANING ACQUISITION AND MEANING RETENTION

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Abstract

The emergence of cognitive psychology sheds new light on the explanation of reading process . Meaning is no longer regarded as self-contained in the graphic words on the print ,but is viewed as from the interaction between readers prior knowledge and words printed on the page . Readers prior knowledge ,accordingly , plays a significant role in reading comprehension . Based on this rationale ,this research designed a study aiming to investigate the role of background information in meaning acquisition and meaning retention . 50 high school students of two parallel classes (One served as the control group ,the other as the experimental group) from Jinan No .6 Vocational and Technical School ,participated in this experiment . Both groups were asked to read the same passage . The control group ,with little or no prior knowledge on the topic ,was required to read the text directly ;the experimental group ,on the other hand ,would be provided with pertinent background knowledge before reading the same text . Both groups were asked to recall the text almost immediately after the reading in order to explore the effect of background knowledge on meaning acquisition . A week later ,both groups were asked to recall the text again in order to explore the effect of background knowledge on meaning retention . Quantitative analysis based on SPSS11 .5 and qualitative analysis based on the students recall protocols revealed that students with more background knowledge made significantly more coherent and correct recall and elaborations and at the same time fewer omissions and distortions than those with less background knowledge in both recalls . This indicates pertinent background knowledge could facilitate both meaning acquisition and meaning retention .

Key words

reading comprehension ;background knowledge ;meaning acquisition ;meaning retention

1. Introduction

What is the nature of reading or where is meaning from ? Scholars of various fields have approached this question from different perspectives ,with linguists from a semantic point of view ,physiologists from the eye movements etc . Though these studies have ,to different extent ,made great achievements on the explanation of the reading process ,most of them have centered on the analysis of the reading material separate from readers or on readers external behaviors . It was not until the 1970s ,with the development of psychology ,especially cognitive psychology that more and more research turned to the exploration of the internal recesses of readers mind in reading process .

According to cognitive psychology ,a discourse has never been complete (Alderson 1984 :45) and meaning does not reside in the text itself ;for meaning to occur ,the words in the text must be integrated into readers prior knowledge . Viewed in this light ,readers prior knowledge received its due recognition and was acknowledged as an important factor in meaning construction .

The role of background knowledge has been broadly explored both theoretically and empirically abroad and at home. In theory, the cognitive perspective of reading can be traced to Smith. According to him, meaning came from the "reduction of uncertainty" (1971), which could only be achieved through the functioning of readers' prior knowledge of language itself as well as their world knowledge. Rumelhart suggested clearly that reading was "at once a perceptual and a cognitive process" (1977: 573). Goodman (1982) also pointed out that to treat reading as the perception of a series of words was the simplification of the process. In his opinion, reading was a "psycholinguistic guessing game" (1982: 33). Barnett argued what was printed on the page was "more than meets the eye" (1989). In China, scholars (for example, Zhuang 1988, etc.) had realized the importance of cultural knowledge in facilitating reading comprehension as early as in the 1980s. Zhang Li (1994) put forward that reading process was in fact the process of activating the background knowledge and of integrating what was printed on the page into this background knowledge. Qi Zonghai (1998) systematically analyzed the role of background knowledge in deepening readers' comprehension, arousing their interest and broadening their view. Du Jinbang (2000) adopted a philosophical view and expounded the relationship between meaning and background knowledge.

When theoretical explorations were carried out, empirical studies were also conducted. The role of readers' prior knowledge was first examined in L1 reading (Bransford & Johnson 1972, 1973, etc.) and recent studies of L2, ESL/EFL readers also demonstrated the effect of background knowledge on reading comprehension. Steffensen & Joag-Dev (1984) examined 19 Indians and 20 Americans matched in various aspects when they processed and recalled two passages about wedding in each of the cultures. It was found that subjects accurately recalled more of the native passage and less of the foreign. Alderson & Urquhart (1988) studied four groups of students of different majors and found out the familiarity with specific academic field influenced the students' performance in their comprehension of the text. Kintsch & Franzke (1995) selected 51 students from university of Colorado and randomly assigned them to three experiment conditions — with full, partial and no background information about a recent political event. This study revealed that there was statistically significant difference of overall proportional recall scores among the three groups of subjects — subjects with full background information recalled more idea units than subjects with partial background information, who in turn outperformed those without background information. In China, Qi & Wang (1988) studied 84 sophomore students of homogeneous background from Guangzhou Foreign Language Institute to investigate the different affecting degree of background knowledge and complexity of language on reading comprehension and revealed that the role of readers' background knowledge was more determinant than that of the language. Yu Peiwen (2006) studied the correlation among cultural background knowledge, English proficiency and reading comprehension and found out that the more cultural background knowledge students were equipped with, the higher proficiency and better comprehension they would achieve. Zhang Li (2007) explored the relationship of culture specific background knowledge and EFL/ESL reading and concluded that the absence of appropriate culture specific background knowledge greatly hindered readers' reading comprehension.

All the studies cited above from different perspectives reveal that readers' prior knowledge would exert great influence on reading comprehension. However, their studies have some limitations.

(1) Most researches abroad were carried out with ESL students as subjects. As it is known, due to the difference of the immediate learning environment between ESL and EFL students, some results attained from ESL students may not apply to EFL students.

(2) Some of the research, for example Qi & Wang's (1988) and Yu Peiwen's (2006) adopted multiple choice questions as instruments, which would show some clues for students in comprehension and provide more chances for them to guess the answer, thus affecting the reliability of their achievements.

(3) Most of the studies (Alderson & Urquhart 1988; Qi & Wang 1988; Yu 2006, etc.) focused on the effect of background knowledge on the reading product. What happens or what is going on in readers' mind in the reading process is left unexplored.

(4) Almost all of the studies, either abroad or at home, only manifested the influence of background knowledge on reading comprehension and few had been conducted to explore the influence of prior

knowledge on meaning retention except Bartlett (1932), whose analysis, however, was only restricted to the rough qualitative description of the recall protocols, due to the limitation of his time.

In view of the limitations of the previous studies, this author will design an experiment to investigate the influence of background knowledge on EFL students reading comprehension as well as meaning retention by quantitatively and qualitatively analyzing the recall protocols made almost immediately after reading and the recall after a period of time respectively.

2. Research Design

2.1 Research Questions

Two research questions will be addressed in this study.

Research Question One: Will students with more background knowledge perform better in meaning acquisition than those with less background knowledge?

Research Question Two: Will students with more background knowledge perform better in meaning retention than those with less background knowledge?

2.2 Participants

50 high school students of two parallel classes in their second year from Jinan No. 6 Vocational and Technical School participated in this experiment. One class served as the control group, and the other as the experimental group, with each class consisting of 25 students. According to the exam score when they were first enrolled in this school and numerous tests in the following year, these two groups were thought to possess the same level of English proficiency. All the subjects had been taught by the same English teacher since their enrollment.

2.3 Instruments

Five data collection instruments were used in this study — one passage for both the control and experimental groups, a questionnaire for the control group, background knowledge provided for the experimental group, a recall made almost immediately after reading and a delayed recall after a week's interval.

The passage in the experiment was about Halloween celebration from The U.S.A. Customs and Institution (Edtton 1990) and it is the narration of a typical scene happening on the evening of Halloween (for detail, see Appendix A). Understanding of the passage is assumed to involve some background knowledge, especially some background knowledge about Halloween. According to the teacher of the subjects, the new words of the article were no more than 5%, which was regarded as appropriate for the students by Schmitt & Carter (2000). After examined by other students of the same level with the Likert scale, 75% of the students agreed that there was no difficulty for them to understand the structure of the sentences in this passage.

A questionnaire designed by modifying Levine & Haus (1985) would be assigned to the control group in order to check whether the control group had preexisting knowledge about the passage (for detail, see Appendix B).

Pertinent background knowledge about Halloween would be provided for the experimental group before the reading (for detail, see Appendix C).

Both groups would do the recall task almost immediately after reading the same passage within the same time. A week later, both groups would be asked to recall the passage again. Both recalls could be done either in English or in Chinese in view of the students' English proficiency.

2.4 Procedure

In the experiment, the experimental and control groups were tested separately in their regularly scheduled class periods, which fortunately both fell on the first period in the morning.

For the control group, a questionnaire (see Appendix B) was first assigned to examine whether

relevant background knowledge was available to them . The questionnaire consisted of 5 questions ,with each counting 2 points . Students who achieved above 6 points would be excluded from the control group . Consequently ,21 subjects were left for the control group . As several subjects in both groups did not follow the requirements and thus were excluded ,at last there left 19 subjects in the control group and 23 in the experimental group .

To test whether there was significant difference in language proficiency between the 19 students in the control group and 23 students in the experimental group ,the author adopted the academic achievements of their final examination at the end of their first year and had Mann -Whitney Test and it resulted in $\text{sig} . = .535 > 0 .05$,indicating normal distribution of the achievements of two groups . Then the author employed Independent Samples T Test and found $\text{sig} . = .978 . > 0 .05$ in Levene s Test for Equality ,and $\text{sig} . = .539 > 0 .05$ in t test for Equality of Means . From this statistic analysis ,we can safely conclude there was no significant difference between these two groups in language proficiency .

After the collection of questionnaire ,the control group was given the experiment text and was asked to understand the passage as well as they could within 5 minutes . After the time set for reading ,the passage was taken back . To avoid short term memory effect on the passage ,the teacher carried on with their regular lessons for about 10 minutes after the reading . Then subjects were asked to recall the text as well as possible in written form either in English or in Chinese as long as they could express out what they had understood within 10 minutes .

For the experimental group ,the teacher first taught them some pertinent background knowledge on the topic (see Appendix C)and at the same time avoided teaching them the content of the passage to be read ,and then assigned them to read and recall the texts with exactly the same requirements as the control group .

A week later ,both the control and experimental groups were asked to recall the passage again . During this interval ,the control group was persuaded not to consult any reference on the topic they had read .

To avoid “ Hawthorne effect ” ,the whole process was carried out by their regular English teacher in their normal class environment .

2.5 Scoring

The passage for the experiment was parsed into idea units . For ease of scoring ,an effort was made to establish a unit in which there was only one bit of information expected to be significant for the analysis . The passage was 174 words in length and was parsed into 53 idea units .

Examples of idea units :

Mr . Brown / was sitting /in her living room ,/reading .(4 idea units)

The recall protocols were scored against the total idea units in the original text . An idea unit was deemed to have been recalled if it was reproduced verbatim ,or if ,in the rater s judgment ,the essential meaning of that particular idea unit was present in the recall . Apart from the information in the text , subjects might expand the text either correctly or incorrectly . The correct expansion was classified as elaboration and the wrong expansion as distortion (Steffensen &Joag -Dev 1984) . And those idea units that were not recalled at all were classified as omissions . Since this method of scoring is subjective by nature ,a test of inter rater reliability was conducted over a random sample of 10 percent of the recall protocols and the correlation between the two judges on this sample was $r = .98$.

3 . Results and Discussion

Both the almost im mediate and the delayed recall protocols from the experiment were collected and analyzed into idea units of correct recall ,elaborations ,distortions ,overt errors and omissions . The data were analyzed quantitatively by SPSS11 .5 and qualitatively based on the transcript of the students in both recalls .

3.1 Quantitative and Qualitative Analysis of Research Question One

3.1.1 Quantitative Results of Research Question One

Mean units as well as Independent Samples T Test of the above 5 categories (correct recall, elaborations, distortions, overt errors and omissions) were compared between the control and the experimental group, which yielded the following results.

Table 1. Mean comparison of the almost immediate recall between two groups

	correct recall	elaborations	distortions	overt errors	omissions
Control group	7.789	1.000	4.526	1.842	43.211
Experimental group	25.608	4.086	1.000	2.261	25.349

Table 2. Independent Samples T Test for the almost immediate recall of two groups

	T	Df	Sig. (2-tailed)	Mean Difference
Correct recall	-7.864	40	.000	-17.819
Elaborations	-3.276	25.706	.003	-3.086
Distortions	2.750	18.888	.013	3.526
Overt errors	-1.132	40	.264	-.4187
Omissions	7.918	40	.000	17.862

Table 1 showed a clear comparison between the two groups in their recall of correct idea units, elaborations, distortions, overt errors and omissions. It was revealed that the experimental group made more correct recall, elaborations and overt errors and the control group made more distortions and omissions.

It can be seen from Table 2 that there was significant difference between two groups. In the recall of correct idea units and elaborations, the significance levels were $.000 < 0.01$, $.003 < 0.01$ respectively, indicating that the experimental group performed significantly better than the control group in the correct recall and elaborations.

Similarly, Independent Samples T Test of distortions and omissions also manifested significant difference between two groups (sig. = $.013 < 0.05$; sig. = $.000 < 0.01$ respectively). The mean difference revealed that the control group distorted and omitted 3.526 and 17.862 more idea units respectively than the experimental group.

As for the Independent-Samples T Test of overt errors between two groups, there was no significant difference as the data showed (sig. = $.264 > 0.05$).

(The qualitative results will be mentioned in the following discussion part.)

3.1.2 Discussion of Research Question One

Results from SPSS11.5 and the analysis of students' protocols clearly indicate that students with more background knowledge performed significantly better than those with less background knowledge in meaning acquisition.

(1) Discussion about correct recall and omissions

Figures in Table 1 show that the experimental group made 17.819 more correct recall and at the same time the control group made 17.862 more omissions. That means the students with more background knowledge remembered more idea units than those with less background knowledge. Qualitative analysis confirmed this result. Subjects of the experimental group not only recalled far more information than those of the control group, but arranged the ideas of the text in a more logical and coherent way with more detailed information of the text. The control group, however, not only recalled fewer idea units, but organized the recall poorly. For example, some students of the control group only recalled some words or phrases of the text and then piled them together; other students, though they could recall considerable idea units, could not arrange their recall in a coherent way.

With other things being equal, the different performance of two groups, to a large extent, is attributed to the different accessibility to relevant background knowledge. Goodman (1982) held that the extraction of meaning can only be obtained through the integration of information on the page with readers prior knowledge. For the experimental group, background knowledge about Halloween in the process of meaning acquisition offered a cognitive context for them to process the explicit information in the text or in Anderson & Pearson's word (1988), a "mental home", for the graphic words to attach to. With such a mental home, more details would be integrated and more meaning acquired.

Ausubel, Novak & Hanesian's (1978: 124) assimilation theory offers a more specific explanation. According to this theory, if there is relevant background knowledge in the reading process, this preexisting knowledge structure can be defined as "A", and the new information as "a". When a new idea "a" is meaningfully learned and linked to relevant established idea "A" in the reading process, both ideas are modified and "a" is assimilated into established idea "A", creating the new ideational product "A'a" with new meaning through the integration. In this way, the newly learned meaning becomes an integral part of the particular ideational system, and thus meaning is acquired. In this experiment, general knowledge about Halloween celebration served as "A" to assimilate specific information "a" in the text. With this cognitive context, it is easy for students of the experimental group to understand not only what is written in the text, but why it is written, and thus, they would regard every sentence of the text meaningful in the reading. Furthermore, background knowledge prompts readers to edit their output in the process of recall (Anderson & Pearson 1988). Information matching with readers prior knowledge can be more easily interpreted as coherent, thus more accessible to readers in recall.

On the contrary, subjects of the control group, with no specific information about the topic, could only draw upon the explicit linguistic symbols on the page. It's possible for them to know each word and structure of the text, but difficult to understand what happened between the children and Mrs. Brown. It's hard for them to understand why such information as in the text is put forward and even harder to imagine what has been deliberately deleted, so few connections will be built among propositions to make the text coherent. If readers can not make what is being read coherent in their reading, they would tend not to recall it (Singer 1990), even though they seem to remember that information.

In qualitative analysis, the two groups recall of two sentences draws the author's attention. In the passage there are two sentences: "Mrs. Brown put the safety chain on her door. Then she opened it a little and looked out." 15 of the 23 subjects in the experimental group could recall these two sentences whereas only 2 of the 19 subjects in the control group remembered this information. The understanding of these two sentences, in fact, involves some background knowledge — robbers sometimes take the advantage of the casual open door Halloween spirit to gain access to strangers' homes, so adults should be very careful. Bearing this background knowledge in mind, the experimental group would fully understand why the author had written these two sentences and would attach more importance, and thus more attention, to these two sentences, which accordingly, would be more accessible to the readers in their recall.

Qualitative analysis also showed more coherence in the recall of the experimental group. The coherence of a text, according to Carroll (2000: 168), has a "greater association with the unitary impression of a passage in the comprehenders' mind" than with the words printed on page. That means coherence comes more from the interaction between readers' prior knowledge and the text than from the text itself. Reading with more background knowledge, readers will concentrate on the global meaning of the text by reasoning the connections between the isolated words, phrases and sentences and logically linking them to form a whole picture, thus achieving more coherence in their retrieval of the text.

(2) Discussion about elaborations and distortions

The recall showed that both groups made expansions of the text, with the experimental group giving 3,086 more elaborations and the control group 3,526 more distortions. Elaborations made the text more coherent and distortions distorted the meaning of the original text.

Difference in the expansions made by both groups has a better reflection in the qualitative study of some recall protocols. For example, in the experimental group, one student recalled 几个孩子戴着(恐怖)

面具 ;two students recalled 布朗夫人听到有人敲门 ,然后 (从床上下来)去开门 ;another one wrote 布朗夫人 (在床上)看书 ,to list just a few .

All these elaborations showed the traces of readers' prior knowledge . With some general world knowledge and the prior knowledge about the spending of Halloween as a cognitive context ,readers formed a coherent and integrated mental representation about why the children dressed up that way and what Mrs . Brown was doing in the living room .

But from the control group ,more distortions were found : ... 布朗夫人说 :[“ 这样不好玩 ,太吓人了”] ;有三个男孩 ,扮成鬼样敲开别人家门故意做恶作剧吓唬他们 [然后在门上拴上几个袋子 ,把糖果放进每个袋子里] ;布朗夫人出来看 [发现门上拴了三个袋子 ,这三个袋子分别是三个孩子放上的 ,目的是让这家人给他们放些东西] ;几个孩子穿着 漂亮的 衣服 etc .

These expansions ,though distorting the original meaning ,revealed some rationalization of readers to the text being read . But without the relevant background knowledge ,the control group could either fall back upon some general knowledge to create some connections among propositions or they would draw on some other schema (for example ,the spending of the Spring Festival perhaps)to make the text seem reasonable ,both of which would bring some distortions to the text .

(3) Discussion about over errors

As for overt errors ,there was no statistical significance between two groups . Figures in Table 1 revealed that the experimental group even made more overt errors than the control group . The explanation for this result may come from the fact that the experimental group produced far more idea units than the control group ,thus more chances to make overt errors .

In a word ,from the quantitative and qualitative analysis of Research Question One ,it can be seen that background knowledge demonstrated great impact on readers' reading process and on the almost immediate recall . That is ,students with more background knowledge as anchorage could assimilate more ideas to form a coherent mental representation and establish coherence between ideas ,thus more readily acquiring the meaning of a text .

3.2 Quantitative and Qualitative Analysis of Research Question Two

3.2.1 Quantitative Results of Research Question Two

Mean comparison and Independent Samples T Test for the delayed recall generated the following data .

Table 3 . Mean comparison of the delayed recall between two groups

	correct recall	elaborations	distortions	overt errors	omissions
Control group	4 .263	0 .526	2 .474	0 .632	48 .737
Experimental group	21 .391	5 .390	1 .131	0 .956	31 .044

Table 4 . Independent Samples T Test for the delayed recall of two groups

	T	Df	Sig . (2 tailed)	Mean Difference
Correct recall	-8 .918	40	.000	-17 .128
Elaborations	-4 .765	22 .845	.000	-4 .864
Distortions	4 .069	40	.000	1 .343
Overt errors	-1 .183	40	.244	- .324
Omissions	8 .977	40	.000	17 .693

Mean comparison of the delayed recall as shown in Table 3 revealed similar results to that of the first recall — the experimental group recalled more correct idea units and elaborations ,and made fewer distortions and omissions .

Independent Samples T Test showed there was significant difference between two groups in their recall of correct idea units and elaborations (sig . = .000 < 0 .01 ;sig . = .000 < 0 .01 respectively) .

At the same time ,the control group significantly produced more distortions and omissions than the

experimental group ($\text{sig.} = .000 < 0.01$; $\text{sig.} = .000 < 0.01$ respectively).

Like the results in the first recall, there was still no significant difference between the control and experimental groups in overt errors ($\text{sig.} = .244 > 0.05$).

(Qualitative results of the delayed recall will be mentioned in the discussion part.)

3.2.2 Discussion of Research Question Two

One finding about the delayed recall is that both groups made more interpretations of the ideas instead of using the exact wording of the text. This phenomenon revealed that what was remembered by readers was the meaning of a passage and seldom the exact wording of the passage. Another more important result from quantitative and qualitative analysis is that both groups suffered some forgetting during the interval, but there was an important difference between forgetting that occurred among the students with more background knowledge and those with less background knowledge.

(1) Discussion about the correct recall and omissions

Similar to the results in the first recall, there were more correct idea units and fewer omissions in the recall of the experimental group (the mean of correct idea units in the experimental group is 21.391, whereas the mean of correct idea units in the control group is 4.263). Qualitative analysis showed that the protocols of the experimental group, though not so detailed as their first recall, could still keep the main idea of the text and remain the coherence of the whole text. In contrast, the control group could only recall some general or isolated or vague ideas of the text and some part of their recall could not keep coherent.

This result may be explained by the assumption that integrated information will gain more stability in readers' mind and thus longer duration and less forgetting. For students of the experimental group, the meaning of the text — "a", after acquired, would be integrated into the general understanding about Halloween "A" and form a new mental representation "A'a", which would be stored in the long term memory. A new idea acquired by assimilation to a well-established relevant idea, will become one integral part of readers' cognitive structure and tend to gain some of the inherent stability of the original idea (Ausubel et al., 1978). And the stability of the integrated organization or the dissociability of new information from the previous knowledge makes forgetting more restrained and retention more durable.

Another advantage of the experimental group lies in that meaning assimilated into readers' prior knowledge is not randomly stored in readers' brain, but is combined with the prior knowledge, both of which form "networks composed of knowledge spaces centered on main topics" (Beaugrande & Dressler 1981: 94). This established cognitive structure will readily provide readers with some connected outlines of relevant concepts in memory, strong connections and a richness of relationships, thus enabling readers to "retrieve information in a systematic way" (Reed 1982: 203). That means when memory is activated by some input about Halloween in this experiment, readers can spread to other related variables and details in the structure, thus forming a whole picture of the discourse. This explained why subjects provided with background knowledge could recall more and omit fewer idea units of the passage and at the same time maintained the coherence of the delayed recall.

(2) Discussion about elaborations and distortions

Quantitative analysis also revealed that there were significantly different numbers of idea units in the expansions of the passages, with the experimental group making 5.390 idea units of elaboration and 1.131 idea units of distortion on average while the control group 0.526 idea unit of elaboration and 2.474 idea units of distortion. The same finding was got from the qualitative analysis. Subjects in the control group fossilized some distortions they made in their first recall and made some rationalization (Bartlett 1932) according to their general knowledge, or some wrong schemata they fell back upon.

As cognitive linguists suggest, one piece of information about the text will touch off the entire situation in readers' brain, thus bringing about information both in readers' prior knowledge and in the text in their recall. Subjects supplied with pertinent background knowledge had formed a picture compatible with the original meaning of the text, so some traces of this background knowledge would seem reasonable and logical. For the control group, however, once the wrong inferences were formed

during the reading process ,they were likely to be fossilized before corrected .

(3) Discussion about the overt errors

Like the results in the first recall ,there was still no statistical significance in overt errors between two groups . And it could also be accounted for by the more chances for the experimental group to make errors because of more idea units recalled by them .

In a word ,both the quantitative and qualitative analysis on Research Question Two revealed that readers prior knowledge exerted great influence on readers retention of the meaning . That is ,students with more background knowledge could remember more meaning of the passage and retain more coherence of the text than those with less background knowledge .

4 . Implication and Application in Practical Learning and Teaching of Reading Comprehension

Quantitative and qualitative analysis of the two research questions suggests that pertinent knowledge would enhance meaning acquisition as well as meaning retention . This result offers some enlightenment for the current learning and teaching of reading comprehension .

4 .1 Adopting Student -Oriented Teaching

In cognitive view , meaning is viewed as readers reconstruction from the text and their prior knowledge and it has " no effective existence outside of its realization in the mind of the reader " (Tompkins 1980 ix) . As a matter of fact ,reading is a highly motivational process rather than a passive one . Viewed in this light ,readers should be regarded as being at least as important as the text ,if not more important . Therefore ,EFL reading should be fully aware of readers involvement in the process and arouse as much their motivation as possible in the reading process .

4 .2 Taking the Whole Discourse as Teaching Unit and Emphasizing Contextual Teaching

As this study suggests ,keeping the integrity of passage and rich relationships among ideas will greatly enhance readers meaning acquisition and meaning retention . So in practical teaching ,the whole discourse rather than isolated words or phrases should be taken as the unit to teach ,and context should be brought into play in the teaching of words and phrases .

4 .3 Teaching Background Knowledge before Reading and Encouraging Students to Draw upon the Background Knowledge in the Reading Process

As is revealed by this study ,reading is not a mere perceptual process but more a cognitive one . So when we deliberately attempt to " influence the cognitive structure of readers so as to maximize meaningful learning and retention ,we come to the heart of the educative process " (Ausubel et al . 1978 : 164) . To provide the EFL readers with the appropriate background knowledge is ,as this study demonstrates ,one feasible way to influence readers cognitive structure ,especially when such information is specific to the foreign language culture and may not be part of EFL readers prior experience or knowledge . In this case ,the teacher must be prepared to engage in " building new background knowledge as well as activating existing background knowledge " (Carrell 1988 248) .

Various ways can be adopted to provide and activate students relevant background knowledge . Teachers can employ pictures ,videos or questions and whatever to have students think ,write ,discuss and predict everything about the topic before the reading and guide students to interact with the text during the reading process .

5 . Conclusion

Cognitive theory diverges people s attention from the examination of events external to individuals to what goes on within the internal recesses of the readers mind and thus come to the nature of the reading process and retaining . Meaning ,as cognitive theory suggests ,does not reside in the text but is reconstructed by readers through the interaction between the text and their prior knowledge . It is this interaction itself that becomes the locus of meaning . Viewed from this perspective ,the extent to which a reader can get meaning from written language depends heavily on his cognitive readiness to integrate the graphic words . Therefore ,a reader s success in comprehending is largely a function of the conceptual and

experiential background he brings to the task and of what his processing of the writers language evokes in him (Goodman 1982).

Quantitative and qualitative analysis of the study clearly shows the traces and involvement of the readers prior knowledge . The main finding of this study can be summarized as follows . (1) Students with more background knowledge would do better in meaning acquisition than those with less background knowledge . (2) Students with more background knowledge would do better in meaning retention than those with less background knowledge . In view of the results from this experiment , a shift from form - or text based reading to meaning - or reader oriented reading is highly recommended in the teaching and learning of EFL reading , and more emphasis should be laid on the role of the readers and more attention to the teaching and activating of background information .

Of course , there are some limitations in this experiment . First , the sample of this experiment is not big enough to generalize the effect of background knowledge on reading for students of all levels ; second , the result from this experiment is far from comprehensive as the author only employed the reading of one article to demonstrate the effect of background knowledge ; third , if an interview immediately following both recalls was conducted , the result would bear more reliability ; fourth , whether the background knowledge has different effect on students of different proficiency level is also an area to be investigated . Nevertheless , the purpose of this experiment is to offer some insights into the process of reading . More attention to the study of readers internal recesses in the reading process is much desired in the future study .

Note

In the qualitative analysis , all examples are what subjects exactly wrote . In the analysis of subjects recall protocols , information in () refers to elaborations , and information in [] refers to distortions .

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Appendix A

Passage for the Experiment

It was a cool autumn evening . Mrs . Brown was sitting in her living room . Suddenly , there was a loud knock on her door , then two or more knocks . Mrs . Brown put the safety chain on her door . Then she opened a little and looked out . There stood three children wearing masks and costumes . When they saw her , they all shouted , Trick(恶作剧) or treat(款待) ! Money or eats !”

Mrs . Brown dropped a candy bar(糖块) into each child's bag . Then she said to one boy , who was wearing a big hat , high boots , and a holster(通常固定在腰上的手枪皮套) with a toy gun in it , “ What are you ?”

“ A cowboy ,” he answered .

“ I m a ghost ,” shouted another child under a white sheet .

“ And I m a skeleton(骷髅) ,” said the third child . “ My bones shine in the dark .” The “ skeleton was wearing a black suit with white bones painted on it .

“ Thanks for the candy ,” shouted the children as they ran off to ring another doorbell .

“ You're welcome .” said Mrs . Brown , “ Have fun . And don't play any pranks(恶作剧).”

Appendix B

Questionnaire for the Passage

请简要回答下列问题：

- 1 . 请问您知道“万圣节”这个节日吗？
- 2 . 孩子们经常会在这个节日做些什么？
- 3 . “万圣节”是怎么来的？
- 4 . 人们在这天经常会怎么打扮？
- 5 . 大人在这天应注意什么？

(Continued on p . 126 ...)