



## A Case Study of Lexical Chunk Theory and Its Impact on Reading Fluency

MA Hong<sup>[a],\*</sup>; LI Chunling<sup>[a]</sup>

<sup>[a]</sup>College of Fundamental Studies, Shanghai University of Engineering Science, Shanghai, China.

\*Corresponding author.

Received 8 November 2015; accepted 5 February 2016  
 Published online 26 March 2016

### Abstract

A focus case study is conducted to look into the impact of increased awareness of lexical chunks in the process of reading will contribute to reading fluency. The study lasts two years, during which the researchers reflected on reading related theories and adopted intervention teaching approach, especially by drawing on the implication of lexical chunk theory on teaching reading courses in English. In order to better understand the influence of lexical chunk theory on reading fluency, a face to face interview was conducted right after each stage of the study, complete with the data collected in the reading tests. The findings reveal that the action research resorting to lexical chunk theory has a positive impact on improving a student' reading fluency. Factors contributing to improved reading fluency are also looked into with an aim to bring college English reading course in most Chinese universities to higher standards.

**Key words:** Lexical chunk; Critical reading strategies; Reading fluency; Reading accuracy; Teacher's development

Ma, H., & Li, C. L. (2016). A Case Study of Lexical Chunk Theory and Its Impact on Reading Fluency. *Cross-Cultural Communication*, 12(3), 35-39. Available from: <http://www.cscanada.net/index.php/ccc/article/view/8206>  
 DOI: <http://dx.doi.org/10.3968/8206>

### INTRODUCTION

The past two decades witnessed a gradual change of focus on teachers' development, with an ever-increasing

emphasis on alternating reflective teaching with teaching practice (Meng, 2011). Teachers resort to teaching observation and reflective thinking on their teaching approaches in order to find out the obstacles to teaching EFL reading. And then, they turn to relate theories and findings in the research papers while analyzing the causes, coming up with a tentative solution, which is usually followed by testing the validity or practicability in their teaching practice. Quantities of literature made by researchers abroad has revealed that reflective teaching is one of the most effective ways to improve teaching performance (Darling Hammond & McLaughlin, 1995; Lieberman, 1995; Lin, 2003). Besides, academic papers on reflective teaching published in China also assert that reflective teaching enables teachers to find out challenges in teaching, to come up with tentative solutions and then to apply them to teaching. Revision or improvement of teaching methods is made necessary so that teaching performance can be bettered. In other words, reflective teaching based on action research is beneficial to teachers' self development in terms of their teaching practice and academic research.

## 1. LITERATURE REVIEW

### 1.1 Action Research

In the 1940s, Kurt Lewin started to propose the notion of action research in his paper. In the 1990s, it revived in the world of English language teaching. It is usually defined as an investigation and research on teaching in an organized and systematic way (Wallace 1998; Edge 2001; Burns, 2010a). Action research, in the eyes of Richards, Platt and Platt (1992), is teacher-initiated classroom research with the purpose of increasing teachers' understanding of classroom teaching and learning and of bringing about the improvement in teaching. It usually includes the collection of data together with devising a plan to bring about the

desired change, ended by observation of the effects of the plan in the classroom. Therefore, action research is considered an effective way to enhance reflective thinking. Besides, sharing the findings of action research has a positive impact on schooling and teaching practice (Miller, 2003). A Taiwanese scholar contends that action research is one of modern academic research methods. It is also a collaborative method. Practitioners are engaged in sorting out issues that occur in their practice while taking action to deal with obstacles to effecting teaching. Hypotheses are tested in the process and action is taken to test its validity or practicality.

## 1.2 Lexical Chunk Theory

Lexical chunks, or called prefabricated chunks are defined from two perspectives. From the perspective of psycholinguistics, it is stored and used as a continuous unit (Wray, 2002). On the other hand, from the view of corpus linguistics, lexical chunks are related to phrases that are used with high frequency (Lin, 2011). Lexical chunks are referred to as phrases with fixed or half-fixed forms and meaning, assuming the roles of syntax and lexicon (Nattinger & Carrico, 1992). They are stored and retrieved whole from memory at the time of use rather than subject to generation or analysis driven by the language grammar (Wray, 2002). To some extent, use of lexical chunks relieves the load of working memory in terms of language use and expression, facilitating fluency and decency in terms of language use.

This research is carried out on the basis of classification made by Altemberg (1988, p.9). Lexical chunks, judging by the grammatical perspective, are grouped into three types: complete clauses (independent clauses and dependent clauses included); clause constituents and incomplete phrases, which are usually word sequences, without a content word such as “with not a”. Among all the chunks, clauses take up a large portion. However, much attention is given to phrases with little importance attached to clauses or incomplete phrases in reading courses. As lexical chunks are ready-made language units, their use is beneficial to both production and understanding of a language (Wray, 2002). When it comes to the issue of how to cultivate and enhance the Chinese students’ awareness of lexical chunks with the aim to improve their fluency and accuracy in reading, there is not much literature that can be resorted to (Yang, 2011).

## 1.3 Working Memory, Reading Fluency and Reading Performance

In view of neuropsychology, information is processed in three stages, sensory memory, working memory (short-term memory) and long-term memory respectively. When letters are transformed into linguistic signals, information is processed in the sensory memory. Then the information is processed in working memory via attention. However,

capacity of working memory is relatively limited, handling 7+/-2 units of information at a time. When it comes to reading, working memory is heavily loaded with tasks such as storing and processing new information while getting engaged in other cognitive activities such as drawing inference, making the connection between the old information with the new one and etc..

Reading fluency was put forward by Newman as early as nearly 30 years ago. Reading fluency does not necessarily mean reading speed. It actually covers reading accuracy, speed and prosody. However, cultivating reading fluency is a gradual and cumulative process (Grabe, 2009). Generally speaking, a proficient reader can decode meaning quickly and efficiently while understanding the contents and structure of a passage (Ma, 2007). Reading fluency can be understood as deciding the sentences of meaning groups (lexical chunks) in order to relieve the burden on working memory. As a result, working memory will engage more of its capacity in other cognitive and meta-cognitive activities. Literature on the correlation between reading fluency and reading efficacy can be found in quite a few empirical studies and academic papers (Grabe, 2009; Kuhn & Stahl, 2000).

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## 2. ACTION RESEARCH

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This action research constitutes the following procedures, namely, observation and detection, proposal of a solution, application, readjustment or revision of the plan, analysis of the data collected and summerization of the findings, usually ended with sharing the findings with colleagues. The teacher adopted intervention teaching method. Data come from class observation, questionnaire and in-depth interviews. Besides, scores in five exams are gathered for the purpose of quantative analysis.

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## 3. RESEARCH

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### 3.1 Subject

The subject of this case study is typical of junior college students majoring in engineering science. Before the experiment, the researcher and her colleagues who acted as an observer and assistant in the study got to know the subject by gathering the information about his family background, his class, textbooks he used, reading skills and his understanding of lexical chunks.

### 3.2 A Case Study of Enhancing Awareness of Lexical Chunks to Improve Reading Fluency on the Basis of Action Research

#### 3.2.1 Diagnose Challenges in the Student’s Reading

Prior to the experiment, a reading test and questionnaire were conducted. The results revealed that the learner’s awareness of lexical chunk was moderate, and his preliminary reading speed was 92 WPM, with reading

accuracy amounting to 74%. Take the student's score in CET 4 as his initial score. The challenges he was confronted with in reading were relatively slow reading speed, poor command of complex sentences and failure to locate required specific details.

**Table 1**  
**The Student's Reading Performance at the Initial Stage**

Initial accuracy in reading	Reading speed	Recognition of lexical chunks	Attitudes to reading
72.9%	92wpm	45%	Passive driven by external factors

### 3.2.2 Research Questions

After figuring out the subject's bottlenecks in reading fluently, two researchers came up with an approach, by which they demonstrated how lexical chunks were classified and applied to reading. By means of intervention teaching method and scaffolding, the researchers aimed to find out whether raising awareness of lexical chunk in reading would contribute to reading fluency.

a) Does intervention teaching method works effectively in raising awareness in lexical chunk?

b) Does enhancement in awareness of lexical chunks has a positive impact on reading fluency?

### 3.2.3 Procedures

The case lasted approximately two years, divided into three consecutive lags. The first and second lag lasted half a year respectively. The third stage lasted nearly a year. After each stage, an interview was conducted to collect data related to reading fluency that is, reading speed, accuracy and recognition of lexical chunks.

The first lag: Make a tentative teaching plan. The researchers divided reading process into three sections, pre-reading, during reading and post-reading. The researcher **demonstrated** how lexical chunks were classified and how they were spotted. In the course of reading, the student was required to recognize the lexical chunks by means of thinking aloud. In the stage of after-reading, the researchers marked the lexical chunks in the passage and drew the student's attention to them. Besides, the student was asked to translate the lexical chunks to Chinese or to make sentences by using some of the lexical chunks with the purpose of enhancing awareness of lexical chunks.

The second stage lasted half a year, during which the subject demonstrated how to read by lexical chunks. His awareness of lexical chunks was strengthened by the exercises emphasizing comprehensive output, such as writing the summary or drawing the outline. By moving from reading to writing, the subject had a better understanding how lexical chunks were used in reading and writing. At the end of the second stage, the subject took CET 6 for the second time.

The third stage centers round the subject's preparation for the TOEFL test. As the vocabulary required in TOEFL is considerably different from that in CET4 and CET 6, the researchers helped him to build up his vocabulary by means of extensive reading. Quantitative reading practice provides him with an opportunity to apply what he had learnt about lexical chunks, during which declarative knowledge (knowledge of lexical chunks) was transferred to procedural knowledge (O'Malley & Chamot, 1990). The subject cultivated the habit of reading by decoding lexical chunks, which facilitated the improvement in reading speed. The reading he had done amounted to 120,000 words in a year.

### 3.2.4 Data Collection

The scores in CET 4, CET6 and TOEFL that the subject took part in were collected. As these tests are large-scaled, known for their validity and reliability. Additional data were gathered, like the questionnaire conducted after each stage of learning, notes taken in the class observation, teaching plans and data concerning the quantity and types of lexical chunks recognized by the subject.

**Table 2**  
**Five Major Tests and Reading Speed**

Name of tests	Time	Scores (reading scores included)	Reading accuracy speed	Recongition of lexical chunks
CET 6	2009.11	520 (185)	72.9% 110WPM	56%
CET 6	2010.7	55 (212)	87.2% 136WPM	73%
TOEFL	2011.2	79 (21)	70% 115WPM	78%
TOEFL	2011.10	84 (26)	86.7% 153WPM	87%

### 3.2.5 Data Analysis

Judging by CET 6 scores, accuracy in reading rose from 76.1% to 87.2%, increased by 14.6%. In regard of changes in TOEFL scores, accuracy jumped from 70% to 86.7%, an increase of 23.8%. In addition, reading speed picked up in the two years, with a rise of 23%. The number of lexical chunks he recognized rose accordingly. However, the reading speed dropped when he embarked on TOEFL reading. As a rule, reading speed and accuracy improved considerably as the experiment moved on.

### 3.2.6 Findings

In the two-year experiment, the subject's reading performance brushed up in terms of vocabulary (starting from 4,800 words to 8,000 words), reading accuracy and reading speed. Besides, prosody was markedly noticed when he was reading aloud. The number of lexical chunks he could spot out in the passages increased markedly.

Further analysis was made to look into his lower and higher level reading abilities. It was concluded that his lower level reading ability was considerably improved, due to his awareness of lexical chunk and its application in reading process. However, his higher level reading was

somewhat benefited, with a sign of inconsistency in the five reading tests. The higher level reading ability mainly refers to making inference, deducing the author's attitude, evaluating the writer's view point and etc.. The researchers took notice of this reading obstacle and another round of action research will be initiated to solve this problem.

After getting the subject's content, the main themes in the interviews were presented as follows:

*I can only spot out the lexical chunks that seem familiar to me while reading the passages whose ideas sound strange or complex. But those familiar lexical chunks can't contribute to comprehension. (2009.12)*

*After a year's intensive and extensive reading, I can move my fixation more freely. I don't move from one word to another, with fewer frequencies of regression. I can easily spot the specific details and main idea. But I am struggling with making implications. (2011. 10)*

### 3.3.7 Sharing the Findings With Colleagues

As the last step of action research, the researchers shared the findings with colleagues. Enhancing learners' lexical chunks in reading comprehension helps to relieve the burden on working memory, leaving more space for other cognitive and metacognitive activities, thus contributing to improved reading fluency. However, as for higher level reading abilities, raising awareness of lexical chunks does not necessary bring about desirable results. Another action research will be carried out, centering on how to brush up higher level of reading abilities.

## CONCLUSION

From teachers' perspective, action research enables them to evaluate their teaching objectively and carry out research on the topics which are closely related to their routine teaching. From the etic view, action research can maximize the teaching effects by applying learning theories to practice. In the whole process, the focus shifted from teacher's demonstration and guidance to cultivation of learners "atomicity of using lexical chunks in reading process, with an emphasis on learners" major role in learning to read more effectively and efficiency (He, 2011).

The case study serves as an initiative step to study the impact of application of lexical chunk theory to teach EFL reading. The findings of the study reveal, to some extent, the increased awareness of lexical chunks contributes to the improved reading fluency. However, as the scale of this study is done on a single student, a further empirical study is expected to verify the results obtained from this case study.

In conclusion, the increased awareness of lexical chunks in EFL reading has a positive impact on reading fluency. Explicit instruction can facilitate the acquisition of lexical chunks (Ellis, 1997). Besides, this experiment study also proves the findings made by Walzoyk (1999),

who asserts that reading fluency has a lot to do with reading competence. When a student can spot out and use quantities of lexical chunks automatically in the process of reading, there is much likelihood that reading fluency will be improved.

Therefore, in the reading class, explicit teaching methods aiming to improve students' awareness and application of lexical chunks are beneficial to improvement in students' reading performance. Meanwhile, resorting to action research, EFL teachers find a gateway to explore their teaching practice and engage in research that is dear to them (Cheng, 2010; Gao, 2003; Ren, 2006; Liu, 2009)

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