



图式

FORMAL SCHEMATA

阅读

中国大学生英语阅读能力研究

*An Experimental Research
on EFL Reading*

图式理论源于心理学的研究。在20世纪七八十年代，此理论被语言学家引入到对语言学习的研究中，由于效果显著，常被用于美军战时短期集训中。本书的侧重点是形式图式对中国学生阅读理解的作用。研究表明，阅读不仅受词汇和句法理解的影响，而且还受对整篇文章的宏观结构、段落的理解的影响。

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中国大学生英语阅读能力研究

图 式 阅 读

INFLUENCE OF FORMAL SCHEMATA
ON EFL STUDENTS' READING

——An experimental research from a teacher's
university in China

周 漫 著

湖北电力出版社

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前 言

英语阅读教学在我国外语教学中一直占有相当大的比重，无论是升学、考研还是出国考试都离不开对阅读能力的考查。比起国外对阅读理论的研究，我国起步较晚，相对落后。很多学生阅读速度慢、信息获取不准确，全然没有读本族语文章时的自然洒脱。

如何提高学生的阅读效率已成为当务之急。作为英语教师，我一直关注着国外阅读教学的发展动态，相关资料表明，图式理论在国外已被使用，并且是一种行之有效的教学方法。由此我萌发了进一步研究和实践的想法，在所教的英语专业学生中加以推广，经过分析、对比，效果很显著，感到此法也适用于我国学生的英语阅读，可以向读者推荐。

本书分为三大部分，共六章。第一部分（第1~2章）为理论篇，综述了有影响的三种阅读模式，并跟踪研究了图式理论的发展轨迹。研究者普遍认为阅读过程有三种模式，其中“自下而上”的模式认为阅读是从书面文字开始而终止于大脑的简单、机械的解码过程。“自上而下”的模式认为阅读从大脑开始，以有选择地把注意力集中于部分书面文字而终止，是一种主动的“心理




猜测游戏”。然而在自然的阅读活动中，都不是纯粹、孤立的自下而上或自上而下，而是两种模式随机的在阅读各个层次上的结合，因此产生了第三种模式，即：互动的模式。

随着心理学与认知科学的发展，心理学家发现，知识、经验是以图式的形式储存在大脑里的，当阅读时图式可以把阅读材料同化到认知结构中；不能同化的，图式则变化、调整以顺应阅读内容。通过同化和顺应，使图式与阅读材料达到最佳匹配，从而达到最佳理解、记忆和提取信息的目的。所以如何激活图式是教师的首要任务。对此，国外已有语言学家进行了有益的尝试（Carrell, 1983a, b, c, 1984; Carrell and Wallace, 1983; Carrell and Eisterhold, 1983; Meyer, 1975; Meyer and Freedle, 1984）。但是这些研究均是在以英语为母语或第二语言的环境中进行的，其结果是否适用于我国的外语教学呢？本书在此问题上作了大量的研究和实践工作。

第二部分（第3~5章）为实践篇，基于以上理论及研究背景，本书采用了实验法研究探讨形式图式对我国学生外语阅读的影响。为达到实验的可靠性，在实验过程中分为预实验和主实验。分别在我校外语系英语专业一、二年级的学生中进行。在实验过程中对被试的选择，测试材料的选取，数据的收集和整理等过程进行了精心的设计和控制。实验变量的选择为11个，其中包括背景

II



变量和成绩变量。在实验设计中特别强调了实验的评价系统。此系统包括对被试测试成绩的量化和测试材料难度的量化。被试阅读成绩由客观题和主观题组成。测试材料的量化采用了以下两个参数：词汇量广度和平均句子长度。采集了相关数据后，实验结果用 SPSS 软件进行了分析处理。实验结果表明，实验班被试的阅读成绩明显好于对比班，这说明有效地激活阅读者头脑中已憎爱分明的形式图式可提高阅读效率。尤其值得注意的是实验班被试在回忆（recall）测试中表现出思路清晰且有条理，而对比班则信息零乱、不成系统。

第三部分（第 6 章）为结论，既为全文的总结，又为从事英语教学的同行提出了许多富有挑战性的问题，值得进一步研究和探索。


本书在撰写的过程中参阅了大量的国内外资料和研究成果，在此向作者们表示感谢。同时感谢西北师范大学英语系一、二年级的学生，他们严谨的学风、积极的配合令人感动。

为便于大家阅读，所有专业词语都在文中加上了注解。本书不但适合英语专业和教育学专业的本科生和研究生阅读，而且对广大外语教师以及对外语阅读感兴趣的读者也有一定的启迪作用。

周 漫

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Zhou Man



LIST OF ABBREVIATIONS


ESL:	English as a second language
EFL:	English as a foreign language
L1:	language one (native language)
L2:	language two
SL:	second language
FL:	foreign language
EC:	experimental class
CC:	controlled class
SPSS:	Statistical Package for the Social Science
mt1:	multiple choice test 1
mt2:	multiple choice test 2
mt3:	multiple choice test 3
totlpre:	total scores on pretest
totlmid:	total scores on midtest
totlpost:	total scores on posttest
totltest:	total scores on three tests (totlpre + totlmid + totlpost)
totlacad:	total academic scores at university (exten- sive reading + intensive reading)



ABSTRACT

Research on reading has taken on great importance in the last two decades. Encouraged by various positive results yielded in the investigation of the first language reading research, practitioners in second and foreign language teaching have also begun to carry out experiments in this area.

With the development of schema theory, reading has been regarded as an interactive cognitive process. Research on reading comprehension has shown that comprehension is determined not only by the local effects (phrases or sentences), but also by the overall organization of a text. Each type of text has its own conventional structure. Knowledge of these conventions aids readers in comprehending the text as well as in recalling it later. This kind of knowledge has been called a schema (Bartlett, 1932), or more specially, a formal schema (Carrell, 1983a). Cognitive and psychological investigation has provided a number of mental processes to explain how schema influences readers' reading and recall. At the same time, many studies on schema theory and reading have been conducted since 1980s. Though the methods used were varied, most of the researches demonstrated



that training formal schemata of the readers improved readers' reading comprehension. However, almost all of such studies have been conducted in the situation of learning English as a native language or as a second language. Therefore, it is interesting to see whether positive results derived from research in this situation will be replicatable in an environment of teaching English as a foreign language, such as in the context of China. Based on such a background, the current study is conducted to meet this end. More importantly, the study assures that activation of formal schemata plays an important role in the reading activity of EFL learning. Therefore, we do want to know if the activating of formal schemata stored in students' mind could facilitate their reading comprehension.

In this research, experimental method is adopted. Since experiment is a very precise process, unexpected problems will arise inevitably, so a pilot experiment is needed. Through the pilot experiment, some limitations were found and some necessary adjustments were made before the main experiment is conducted. The study was conducted among English majors of freshmen at Northwest Normal University. The data were analyzed by using SPSS 6.0, and also a precise evaluation system of test materials was used.

Results generated from the research are as follows:



(1) Activating the dormant formal schemata that stored in EFL students' mind actually facilitate their reading comprehension.

(2) Subjects' performances on recall are better than their performances on multiple choice. The fact indicates formal schema is more helpful in retention and retrieval.


On the whole, this study is only a preliminary one on the reading research in the context of China. It is hoped that it may serve as a step for further study.





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Chapter One

INTRODUCTION


This chapter is a general introduction to reading and teaching methodology in reading.

In the first part, you may find the definition of reading, which allows different definitions from various perspectives, is a tricky question.

In the second part, the importance of reading is discussed in the following ways: reading as a way of gaining knowledge; reading for personal values and pleasure; reading as one of the most important skills for ESL/EFL¹ students.

In the third part, we come to the topic of reading comprehension. When we talk about reading, comprehension is inevitably encountered. For the differences of reading, we have different types of reading comprehension and different levels of it. For EFL students their comprehension mostly centers on the construction and interpretation of meaning.

In describing the models of reading process, there are three popular metaphors: bottom-up, top-down and interactive. Comparatively interactive model avoids the shortcomings of the other two and is in accordance with the eclectic



tic idea in language teaching research. Schema theory, which comes from psychology, forms the theoretical basis of it. Several psychologists did their contributions to the development of the theory. Their researches are introduced in the fourth part of this chapter, which may be rather difficult for us language researchers to understand.

Finally teaching methods in reading are reviewed critically. Among them schema-theoretic approach, an eclectic approach in the teaching of reading enjoys much popularity.

1.1 What is Reading?

There are as many definitions as there are many people defining the term. However, these definitions tend to fall into three groups: traditional (decoding) perspective, psycholinguistic (constructing) perspective and schema-theoretic (interactive) perspective.

Reading has been defined as the act of responding to printed symbols so that meaning is created. It has long been recognized, however, that getting meaning from the printed page is too limited a definition of reading. Bringing meaning to the printed page indicates more accurately the reciprocal process between the printed symbols and the mind of the reader. Constructing meaning is a vital prerequisite of all reading. But reading is also a form of thinking, prob-