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### A Study on SPOC: In the Case of English Vocabulary Teaching

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### **Abstract**

Lexical ability of word formation, lexical collocation, grammatical pattern and contextual meaning are crucial to foreign language learners, especially to the English majors of local universities. This study first reviews the previous researches about knowledge of vocabulary and proposes the four elements in depth of English vocabulary knowledge. Second, it reviews some important vocabulary teaching theories and points out that the basis of vocabulary teaching based on SPOC is Connectivism. Third, it explains blended teaching modes based on SPOC. Fourth, it describes a vocabulary teaching experiment based on blended mode of SPOC conducted in English major class of a local university, including experimental process and experimental result analysis. Finally, it concludes that the SPOC-based vocabulary teaching which is very suitable for English majors of local universities is superior to traditional ones, with its significant promoting effect on the improvement of the depth of English majors' vocabulary knowledge.

**Key words:** SPOC; English vocabulary; Teaching and learning

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### 1. INTRODUCTION

### 1.1 Importance of Vocabulary Teaching

As one of the three elements of a language (pronunciation, vocabulary and grammar), vocabulary plays a vital role in foreign language learning. Without grammar very little can be conveyed, without vocabulary nothing can be conveyed (Wilkins, 1972). No matter what kind of target language, vocabulary is an important factor in language teaching and learning and the key factor of all language activities as well.

In "The National Syllabus for College English Majors" (Jiao, E.C. 2004), the importance of vocabulary teaching has been emphasized again and again, and there are clear requirements for the breadth and depth of English vocabulary. For example, TEM 4 requires the recognition of 5500-6500 words, of which 3000-4000 ones should be used correctly and skillfully (including their basic collocations). TEM 8 requires the recognition of 10000-12000 words, of which 5000-6000 ones should be used correctly and skillfully (including their most commonly-used collocations).

"The New National Syllabus for College English Majors" (Jiang & Xie, 2017) stipulates that the "Integrated English Course" requires the majors to skillfully master 3000-4000 words (including their general collocations). The course of "English-Chinese/Chinese-English Translation" requires the majors to eventually translate 300-350 English words per hour.

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### 1.2 Current Situation of English Majors' Vocabulary Teaching

The importance of vocabulary to foreign language learners is self-evident. However, the current situation of vocabulary teaching in local universities is not optimistic, mainly reflected in:

- The traditional teaching mode is deeply rooted in the teacher's mind, with outdated teaching methods still prevailing on the campus, not to mention innovation.
- With the stereo-typed teaching ideas, some English teachers only emphasize on the size of vocabulary, ignoring the application of vocabulary, which seriously restricts students' ability of listening, speaking, reading and writing.
- Vocabulary teaching activity is still teacher-centered and students are passive listeners and receivers while heading down to their cellphones in class.
- Due to the under-motivation, students lack enthusiasm to learn vocabulary, especially in local universities. Their autonomous learning cannot be selfdisciplined.
- Teachers' research on vocabulary teaching is deficient. Even if there are teaching research results, they are not timely applied to teaching. As a result, the students' lexical ability of word formation, lexical collocation, grammatical patterns and contextual semantics is very poor.

# 2. VOCABULARY KNOWLEDGE AND VOCABULARY TEACHING THEORIES

#### 2.1 Knowledge of Vocabulary

First of all, the basic concepts of words and vocabulary should be clear. When we talk about a word, we tend to think in both visual terms and aural terms. Although the definition of a word has always been controversial, it covers the following points: a minimal free form of a language; a sound unity; a semantic unity; a form that can function alone in a sentence. Therefore, we can say that a word is a minimal free form of a language that has a given sound and meaning and syntactic function. All the words in a language make up what is generally known as its vocabulary (including lexical phrases or chunks). The general estimate of the vocabulary is over one million words (Zhang, 2015).

Vocabulary can be classified by different criteria and different purposes, thus the vocabulary knowledge can be also classified by different criteria and different purposes. Generally speaking, vocabulary knowledge covers the breadth and depth of the vocabulary, with the former referring to one's mastering of the vocabulary size, while the latter referring to one's mastering of the vocabulary's forms (pronunciation and spelling), meaning and grammatical behavior, collocation with other vocabulary, frequency of usage, stylistic style, and register limitation (Luo, 2009).

From the perspectives of input and output, Nation (Nation, 1990, 2003) expounds the depth of vocabulary knowledge, pointing out that vocabulary knowledge should cover three levels: form, meaning and function. To master a word, one should not only master its pronunciation and spelling form, but also pay attention to its depth of knowledge, including grammatical patterns, lexical collocation, frequency of use, contextual features, semantic functions and semantic associations.

### 2.2 Depth of Vocabulary Knowledge

Many linguists, scholars and teachers disagree in the classification of vocabulary knowledge in depth. In the author's opinion, the depth of English vocabulary knowledge consists of word formation, lexical collocation, grammatical pattern and contextual meaning, and these four elements are crucial to foreign language learners, especially to the English majors of local universities. Therefore, the design and analysis of this study are based on these four aspects. Depth of vocabulary knowledge is described in Table 1.

Table I Depth of Vocabulary Knowledge

Items	Description		
Word formation	How is a word formed. e.g. prefix, suffix, composition, conversion, etc.		
Lexical collocation	The regular combination of words. e.g. strong coffee, by accident, harmonious society, well done, etc.		
Grammatical pattern	The word or phrase is properly used with some changes if necessary according to grammatical rules		
Contextual meaning	The meaning of a word or phrase is conveyed from before and after the words, phrase, and statement.		

### 2.3 Vocabulary Teaching Theories

Teaching vocabulary is a very complex process: understand the word both in written and spoken form; recall it when needed; use it with the correct meaning; use it in the appropriate grammatical form; use it in correct collocations; use it at the appropriate level of formality; pronounce it correctly; spell it correctly; know its positive or negative associations (Richards 1976, Carter 1987, Ellis and Sinclair 1989).

Most importantly, teaching vocabulary in depth, that is, teaching vocabulary's word formation, lexical collocation, grammatical pattern and contextual meaning, is very pressing. Usual techniques and strategies of vocabulary teaching and learning include: through schema, by lexical chunks, in discourse, with corpus (BNC, COCA, etc.), etc. There are two main theoretical sources of vocabulary teaching: One is the study on the nature of words in linguistics; the other is the research on the process of vocabulary memorizing and learning in psychology and psycholinguistics, which has developed into such learning theories as Behaviorism, Constructivism and Cognitivism, etc.

In order to teach or learn vocabulary more effectively, researchers have put forward a series of methods

enlightened by the above mentioned theories: The Grammar Translation Method, The Direct Method, The Audiolingual Method, The Situational Teaching Method, The Cognitive Approach, The Total Physical Response Method, The Communicative Approach, The Task-driven Approach, The Data-driven Learning (DDL), etc.

However, with the continuous development of the Internet, the above-mentioned theories and teaching methods cannot meet the needs of internet-based teaching. In 2005, George Siemens proposed the theory of Connectivism based on the characteristics of the network era. In the essay Connectivism: A Learning Theory for the Digital Age, George Siemens clarifies that the three traditional learning theories of Behaviorism, Constructivism and Cognitivism all came into being in the era when network technology was not developed. The rapid development of Internet technology has changed people's traditional way of learning profoundly and significantly. Network learning will be the main form of learning in the future (Now it comes into being). George Siemens points out that learning is no longer a person's activity, but a process of connecting specialized nodes and information sources. Connectivism focuses on the construction of the individual learning networks and the maintenance of the timely knowledge, emphasizing "relational learning" and "distributed cognition" (Siemens, 2005), which now coincides with the process of vocabulary teaching and learning based on SPOC. Therefore we can say that Connectivism is the theoretical basis of vocabulary teaching and learning based on SPOC.

## 3. VOCABULARY TEACHING MODE OF SPOC

SPOC (Small Private Online Course), commonly known as "私播课" in Chinese, was first proposed and used by professor Armand Fox of the University of California, Berkeley in 2013. Small and Private in SPOC are compared with Massive and Open in MOOC. Small means that the size of students generally ranges from dozens to hundreds, while *Private* means that students are set with restrictive admission conditions. Only the applicants who meet the requirements of SPOC, can they be included in SPOC courses. The basic process of SPOC is that teachers assign video materials to students as homework, and then answer students' questions in actual class teaching activities, in order to understand what students have absorbed and what has not yet, and deal with homework or other tasks with students in class. Online videos provided by teachers allow students to learn what they want based on their own circumstances, which provides a favorable guarantee for the deep integration of knowledge (Xue & Zheng, 2016). In a word, SPOC is a teaching mode which truly realizes the organic integration of teaching and learning (Huang & Xiong, 2016).

There are three blended teaching modes of SPOC: Teacher-led mode; Student-led mode; Teacher- student-dual-dominant mode. All the three modes have both advantages and disadvantages.

- (1) Teacher-led mode Teachers give lectures and students are listeners, with regular class schedule, integrating "supervision, consolidation and improvement" together. Advantages: Close to the traditional classroom teaching; Low requirements for teachers and students; Strong applicability. Disadvantages: Lack of deep integration between online and offline; Modular integration is not obvious; Limited opportunities for students to participate in class activities.
- (2) Student-led mode Students give lectures; Irregular teaching schedule, task-driven, collaborative learning. Advantages: Promoting interaction (Jigsaw); Subverting the traditional teaching mode; Improvement of students' comprehensive quality; Cooperation and competition. Disadvantages: Difficult organization of teaching; High requirements for both students and teachers; the authority of students' lecturers is questioned; Not suitable for large-scale teaching.
- (3) Teacher-student-dual-dominant mode Teacher + student lectures, responsible for their own modules respectively; Integrating module of the course; Cooperation between teachers and students; Formative evaluation; Task-driven, collaborative learning.

Advantages: Taking tradition and innovation into account—maintaining the order and management of traditional classroom teaching while making some innovations as well; Students' activities of in-depth learning are independent and supervised by teachers; Wide range of application; Interaction of students and peers' helping each other -- information gap, jigsaw; Promoting the effect of students' online learning, mobilizing their learning enthusiasm.

**Disadvantages:** It takes a long time on each topic unit; the teacher's lecture is sometimes disjointed with the student's; it demands a lot for students, some students feel great pressure.

# 4. THE DESIGN OF SPOC IN VOCABULARY TEACHING

### 4.1 Experimental Design

Through the above review of vocabulary teaching theories and approaches, vocabulary knowledge and SPOC related knowledge, the author chooses two classes of English majors from a local university as experimental subjects with conducting pre-test, post-test and questionnaires (including 16 questions) to analyze the effectiveness of students' vocabulary learning in depth. The pre-test and post-test respectively covers four sections with total 100 scores (25 scores/1 section with 25 questions, that is, 1

score per question): Section I --- Word formation (e.g. In times of peace, however, there are still a lot of <u>antiwar</u> people.); Section II --- Lexical collocation (e.g. The steeply rising oil prices would <u>increase</u> the <u>cost</u> of living for the thousands and would hurt small businesses as well.); Section III --- Grammatical pattern (e.g. These vitamins and minerals, ultimately <u>coming from</u> food, are the necessary sources of energy for animals.); Section IV --- Contextual meaning (e.g. Nature is our <u>ward</u>, not our master.). The data collected in this teaching experiment, including the data analysis of both the pre-test scores and post-test scores of the two classes and the questionnaire results of the experimental class, are statistically analyzed by SPSS (version 19.0).

### 4.2 Experimental Hypothesis

English majors from local universities have the following characteristics: 1. Most of them come from remote mountainous areas, they have weak foundation in English, and lack scientific learning methods; 2. Most of them have unclear learning purposes, insufficient learning motivation and poor self-disciplined ability; 3. Most of them have low interest in learning English and lack scientific planning for their future. Vocabulary teaching method based on blended mode of SPOC is conducive to improving the depth of English majors' vocabulary knowledge, especially the lexical ability of word formation, lexical collocation, grammatical pattern and contextual meaning. It can effectively mobilize students' independent learning ability of self-inquiry and self-inductiveness.

### 4.3 Experimental Subjects

Two teaching classes of 59 sophomores selected as the experimental subjects are English majors from a local university in Hubei Province, including 30 ones from class 1 and 29 ones from class 2. Class 1 is operated as experimental class, with English vocabulary teaching experiment based on blended mode of SPOC, while class 2 as the regular class, with traditional vocabulary teaching method. Both classes last 16 weeks of English vocabulary learning. Due to the random composition of parallel classes according to the college entrance examination results, there is no significant difference in the English vocabulary learning level between class 1 and class 2, which meets the requirements and conditions of the experiment. Therefore the result of pre-test on vocabulary is ignored.

## 5. THE APPLICATION OF SPOC IN VOCABULARY TEACHING

The author is quite familiar with the experimental subjects and knows them very well with their English proficiency since she has undertaken *Integrated English Course* and *English Lexicology Course* to them, with the former course finished as freshmen and the latter as sophomores.

With the Teacher-student-dual-dominant Mode (one of three blended modes of SPOC), supplemented with task-driven learning method, this experiment mainly trains students' lexical ability of word formation, lexical collocation, grammatical pattern and contextual meaning. Fortunately the textbook of *English Lexicology* used is *A Course in English Lexicology* (Zhang, 2015), which is rich in content, including vocabulary knowledge and vocabulary learning, i.e. Chapter 8 is about meaning and context, Chapter 11 illustrates vocabulary learning, which is a great help to this experiment.

### 5.1 Make and Watch Micro-Video

The author has prepared micro-video clips (8-10 minutes) for the key chapters, lectured by the teacher or a certain student or extracted from other materials. Of course, the video clips, which would be viewed by students in advance or afterwards, must present the key knowledge or core vocabularies and phrases that students are required to master.

#### Such as

Basic Concepts of Words and Vocabulary (Chapter1): arbitrary, iconicity, basic word stock, analogy, onomatopoeia, productivity, jargon, terminology, slang, argot, dialect, archaism, neologisms, loan words, denizen, aliens, translation-loans, semantic loans, etc.

Word Formation (Chapter 4): affixation, compounding, conversion, shifting, shortening, blending, backformation, sound reduplication, unexpected, graceful; handshake, up-bringing, sit-in, breakwater, swearword, drawbridge, flower-pot, Sino-American, pancake, etc.

Changes in Word Meaning (Chapter 7): extension, narrowing, degradation, elevation, transference of meaning, euphemism mill, scene, companion, angel, respectable, respectful, suspicious, restroom, bathroom, etc.

Meaning and Context (Chapter 8): linguistic context, extra (non)-linguistic context, lexical context, grammatical context, ambiguity, referent, clue, kinesics, polyglot, conflagration, amenity, etc.

English Idioms (Chapter 9): like a breeze, kick the bucket, out of the question, make bricks without straw, etc.

In order to ensure the effect of teaching and learning, the author attaches great importance to the "supervision, consolidation and improvement" at the same time. For example: After watching the micro video clip on Chinese Food, the students are required to have a quiz to meet the author's wondering whether they've really learned something, by asking them to fill in the blanks of the sentence uttered by the lecturer in the watched micro video:

A whole roasted duck is typically served in two ways: the juicy meat and crispy skin are wrapped in mandarin\_\_\_\_\_ (Answer: pancakes ) with scallion. cucumber and hoisin sauce; and the bones are \_\_\_\_\_ (Answer: slow-cooked ) into a tasty soup.

In order to improve students' pragmatic competence, the author asks students to give more examples of some phrases or sentence patterns by imitating what presented in the watched micro-video clips: • Steamed Buns, Baked bread, Roasted Duck, Fried Oysters, Stewed pork,

Smoked Jelly Fish, Braised Tofu; Stir-fried Rice with Egg (Ham), Scrambled Egg with Tomato, Fish Rolls with Rice Wine, etc.

• Dongpo Pork(东坡肉), Kung Pao Chicken (宫保鸡), Beijing Roast Duck(北京烤鸭), Pot Sticker(锅贴), Mar-Boh Tofu(麻婆豆腐), Lemon beef(柠檬牛肉),Chop bell pepper fish head(剁椒鱼头), Hot-and-dry Noodles(热干面)

The students are usually organized to discuss what they have watched or have seen or have read. They are very interested in this way.

### 5.2 Make Use of Corpus

With the available campus wifi and students' cell phones, the author has assigned some key words or phrases for them to train their lexical ability of word formation, lexical collocation, grammatical pattern and contextual meaning, by making good use of their cell phones to consult The Corpus of Contemporary American English (COCA. https://www.english-corpora.org/coca/) or The British National Corpus (BNC. https://corpus.byu.edu/ bnc/), owing to the corpora's function of "concordance or context co-occurrence"(语境共现). For example, through key words in context (KWIC) we can observe the different ways a word is used and the actual contexts or collocations of words, with the information of words like frequencies in different genres, definitions, parts of speech, collocations, synonyms, and antonyms being obtained in seconds.

Such as: agony, boost, present, establish, stand, appreciate; as a result, in terms of, on the basis, in good at, take up, etc..

On some cases, the author also prepares the above core vocabularies' "context co-existing lines"(语境共现行) from COCA or BNC, and makes them into electronic documents in advance, demonstrating them to students in later class. If necessary, the author has printed and distributed them to students for their further study.

### 5.3 Actual Lectures and Seminar

SPOC blended learning mode emphasizes the complementary action of online and offline. It is necessary for students to interact with teachers and help each other among themselves, greatly improving their learning efficiency.

### Verbs that can only be followed by gerunds

Keep, forgive, suggest, enjoy, deny, endure, avoid, mind, admit, prevent, risk, postpone, imagine, etc.

### Phrases that can only be followed by gerunds

give up, put off, be afraid of, , keep on, burst out, can't help, It's worth, as well as, It's no use, look forward to, admit to, prefer... to, be used to, object to, prevent... from..., etc.

All the above materials are made into electronic documents and distributed to the students in advance. Sometimes printed leaflets are necessary.

### · Proof-reading of words and phrases

Give students the words or phrases that are prone to spelling mistakes, so as to reduce or avoid the chance of making the same mistakes in the future. The author made these materials into PPT(playing PPT in slide show), and sometimes made them as electronic documents in advance, then gave them to the students, sometimes presented them in class via multimedia for the sake of discussion.

Such as: ( Note: The misspelled words are in brackets) Vocabularies

nowadays(nowdays), embarrass(embarass), pronunciation(pronounciation), conscience(concience), develop(divelop), opinion(opion), accept(acceapt); Government(goverment), receive(recieve), definitely(definately), accommodate(accomodate), etc.

#### Phrases

on the other hand(in the other hand),in a word(in one word),at a speed (in a speed),in line with(in line to),look forward to(look forward), agree with(agree), account for (account),etc.

The above activities are called the combination of online and offline (O2O). The students have benefited a lot.

### 6. RESULTS AND DISCUSSION

#### 6.1 Results

After the training of 16 weeks, the experimental subjects of the two classes have been tested. The post-test results of vocabulary acquisition and the comparison of two classes are shown in Table 2 and Table 3.(Note: As what the previous chapter related, due to the random composition of parallel classes according to the college entrance examination results, there is no significant difference in the English vocabulary learning level between class 1 and class 2, therefore the result of pre-test on vocabulary is ignored.)

Table 2 Post-testing Overall Results of Two Classes (100 scores on the vocabulary test)

Test type	Class	Number of students	Means	Standard deviation
Post- testing	Experimental class	30	79.95	13.46
	Regular class	29	71.11	11.74

Table 3
Post-testing Results of Vocabulary Depth (with 25 scores of each item on the test)

Test type	Word formation	Lexical collocation	Grammatical patterns	Contextual meaning
Experimental class	21.14	18.53	19.65	20.63
Regular class	19.56	15.84	16.93	18.78

### 6.2 Discussion

It can be seen from the total vocabulary score in Table 2 that the vocabulary score of the experimental class

is much higher than that of the regular one, that is, as for the students' ability of acquiring vocabularies, the experimental class is much stronger than the regular one, indicating that the teaching effect based on SPOC is satisfactory.

The average post-test results of word formation, lexical collocation, grammatical patterns and contextual meaning are shown in Table 3. As can be seen from Table 3, the students' ability of vocabulary application in the experimental class has been improved much compared with that of the regular one, indicating that the vocabulary teaching based on SPOC plays a positive role in students' vocabulary learning.

After the post-test, the author has invited the students from the experimental class to have a seminar, together with questionnaires (including16 questions), in order to know what they think of this teaching mode. Of course, these students are very active in the former SPOC-based vocabulary learning activities. As a result, almost all of them (90%) think they have benefited a lot from the vocabulary teaching, and their enthusiasm for vocabulary learning has been rekindled.

### CONCLUSION

Vocabulary teaching plays a key role in foreign language teaching and learning, but the traditional method of vocabulary teaching pays too much attention to the accumulation of vocabulary, ignoring the contextual application of vocabulary, which makes students feel boring. Therefore the reform of vocabulary teaching is imminent. Fortunately, the SPOC-based vocabulary teaching provides a new way for vocabulary acquiring.

This study has analyzed the effect of SPOC-based vocabulary teaching by applying it to the actual class and has gotten the major findings.

- (1) The vocabulary teaching is very important but the current English majors' vocabulary teaching is not satisfactory, which calls for innovation.
- (2) The SPOC-based vocabulary teaching mode has many advantages. What's more, the teacher-student-dual-dominant mode is very suitable for English majors of local universities.

- (3) The experiment proves that SPOC-based vocabulary teaching, especially the teacher-student-dual-dominant mode, is superior to traditional ones.
- (4) The SPOC-based vocabulary teaching can play a crucial role on the improvement of English majors' lexical ability of word formation, lexical collocation, grammatical pattern and contextual meaning.

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