A Survey of English Vocabulary Learning Strategies in Chinese Senior High Schools

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Abstract: The role of vocabulary acquisition is pivotal in the realm of language learning, yet it poses a significant challenge for numerous Chinese learners. This research delves into the strategies employed by Chinese middle school learners in learning English vocabulary, surveying a cohort of 418 learners. The findings indicate a prevalent weakness in the use of metacognitive strategies among the Chinese learners and identify two primary categories of influencing factors: individual and environmental. The study aims to shed light on the current state of English vocabulary learning among these learners and to propose actionable recommendations for enhancing vocabulary teaching and learning methodologies.

Keywords: vocabulary learning strategies, English learning and teaching, senior high school

1. Introduction

A learning strategy encompasses the actions and steps learners undertake to enhance language learning and usage. The cultivation of learning strategies is one of the training goals set by the English Curriculum Standards for Senior High Schools (2017 edition revised 2020) [1]. As the New Curriculum Standards required, learning strategy is one of the six integrated components of English curriculum content, thus effectively selecting and using learning strategies will help learners to improve learning efficiency. Research [2] found that teaching vocabulary learning strategies is more vital than teaching individual words. Teaching one word allows learners to master that word, while imparting vocabulary learning strategies helps learners acquire and master more words. In order to help high school learners achieve a vocabulary of more than 4000 words in a limited period of three years, it is therefore essential to explore learners' English vocabulary learning strategies usage and breadth of vocabulary knowledge.

However, there are relatively limited researches on vocabulary learning strategies for English learners in high school. For the purpose of investigating the latest situation and effects of vocabulary learning strategies usage in senior high school, this study analyzed and summarized the current situation and some problems through questionnaires survey. Taking the learners of No. 2 middle school of Xuzhou district, Yi Bin as example, this research launched a survey to explore middle school learners' English vocabulary learning situation. It is hoped that this paper can offer some help for learners to select and adopt vocabulary learning strategies to improve their vocabulary learning, to provide some conducive suggestions for the guidance and training of English vocabulary learning strategies, and eventually improve learners' interest in vocabulary learning and make vocabulary learning easy.

2. Literature Review

2.1. Previous Studies about Vocabulary Learning Strategies outside China

Some researches focused on the classification of English vocabulary learning strategies. O 'Malley & Chamot [3] classified vocabulary learning strategies into cognitive strategies, metacognitive strategies and social/emotional strategies. Oxford [4] divided language learning strategies into two categories and six sub-categories. The two main categories are direct strategy and indirect strategy. The direct strategies include cognitive strategy, compensation strategy and memory strategy. Indirect strategies include affective strategies, social strategies and metacognitive strategies. Schmidt [5] classified vocabulary learning strategies into two categories. The first is discovery strategy, including meaning discovery decision making and social strategy. The second is consolidation strategy, including social strategies, memory strategies, cognitive strategies, and meta-cognitive strategies.

On the other hand, various empirical studies have been conducted on English vocabulary learning strategies among language learners. Research indicates that high school learners primarily use strategies when learning vocabulary, with their usage varying based on different English learning content. Studies by Chamot [6] and Gu & Johnson [7] show a positive correlation between strategy use and academic achievement. Schmitt [5] identified popular strategies among Japanese learners, such as using bilingual dictionaries and verbal/written word repetition. Goundar and Ellis [8] found that adult EFL learners commonly use conjecture and repetition strategies for vocabulary learning. Rezvan, Firooz, and Sadeg [9, 10] observed differences in vocabulary strategy usage between undergraduate and postgraduate learners. Nagodavithana and Premarathne [11] highlighted the impact of Vocabulary Learning Strategies on ESL learners in Sri Lanka. Lina [12] investigated vocabulary learning strategies among English majors, revealing moderate usage with inferencing strategies being most common. The study also suggests the importance of mother tongue competence courses and effective vocabulary learning guidance in higher education for improving vocabulary acquisition among English majors.

2.2. Previous Studies about Vocabulary Learning Strategies in China

The research on vocabulary learning strategy in China started late. It was not until the 1980s that vocabulary learning strategies began to be implemented in China.

Numerous researchers have highlighted significant disparities in the adoption of English vocabulary learning strategies among learners at varying English proficiency levels [13-15]. Notably, learners with advanced English skills exhibit a greater propensity to engage in these strategies, with memory strategies being the most prevalent and social strategies being the least utilized [16-24]. Studies focusing on learners' vocabulary learning strategies based on their English proficiency levels, including those by [25-33], have shown significant differences in the use of metacognitive strategies between high and low proficiency learners. Low proficiency learners exhibit a notably lower frequency of strategy utilization compared to their high proficiency counterparts.

Furthermore, studies by researches [34-38] have scrutinized the application of English vocabulary learning strategies in rural middle schools, offering insights and recommendations to enhance English learning outcomes for rural students. Moreover, investigations into the relationship between deep learning strategies and learners' English vocabulary strategies, conducted by Xiao, Luo [39, 40], and others [41-44], have revealed that learners with a deeper vocabulary knowledge base tend to employ a wider array of vocabulary learning strategies. A positive correlation exists between the depth of vocabulary knowledge and the utilization of vocabulary learning strategies.

Researchers have also delved into the obstacles learners encounter when employing English vocabulary learning strategies during the vocabulary expansion phase. Despite gradually accumulating learning strategies while memorizing vocabulary, learners often struggle to effectively utilize cognitive strategies such as management, repetition, vocabulary list organization, association, and contextual understanding. This limitation impedes their ability to expand their vocabulary and enhance their English language proficiency [29, 35, 42, 45, 46].

2.3. Summary

Researchers have explored various facets of vocabulary learning strategies, including the depth and breadth of vocabulary knowledge, comparisons between rural and urban middle schools, and the integration of deep learning approaches. However, theoretical investigations into vocabulary learning strategies may lack depth, and recommendations for vocabulary strategy training may lack comprehensiveness and systematic implementation. Moreover, some studies suffer from limitations in sample size, potentially impacting the generalizability of findings. Based on the existing research landscape, there is a wealth of untapped potential for further exploration of English vocabulary learning strategies in high school settings. Addressing these research gaps and delving into more nuanced aspects of vocabulary acquisition and strategy utilization can significantly contribute to enhancing vocabulary instruction and language learning outcomes for high school students.

3. Research Design

3.1. Research questions

In order to investigating the latest situation and effects of vocabulary learning strategies usage in

senior high school, the study try to answer the following questions.

(1) What are the primary strategies of English vocabulary learning employed by senior high school learners in their English language acquisition?

(2) What factors influence the selection and effectiveness of learners' vocabulary learning strategies?

(3) What are effective approaches to teaching and acquiring suitable vocabulary learning strategies in the context of English language education at the senior high school level?

3.2. Research Participants

The subjects were 418 learners from No. 2 middle school of Xuzhou district, Yi Bin. The learners in this study have already learned English for six years at least, so they had already formed corresponding vocabulary learning strategies.

Table 1: Participants

		Frequency	percentage	Valid percentage
Gender	male	227	54.3	54.3
	female	191	45.7	45.7
	Total	418	100.0	100.0

According to Table 1, there are 227 males in the study, constituting 54.3% of the total participant count. This percentage is also reflected in the valid percentage column, indicating that there are no missing or invalid responses for gender. The study includes 191 females, making up 45.7% of the total participants. Similar to the male category, the valid percentage is 45.7%, showing full response validity for gender data.

3.3. Research Tools

The questionnaire on English vocabulary learning strategies comprises five parts. Part one mainly focuses on gathering background information about the subjects. Parts two to four delve into meta-cognitive strategies, cognitive strategies, and social/affective strategies, respectively. Part five addresses the subjects' English proficiency level. The questionnaire design aligns with the English Curriculum Standards for Senior High Schools (2017 edition revised 2020).

To ensure the questionnaire's efficacy, a pretest involving 30 learners was conducted to identify potential issues. The reliability of this questionnaire (Cronbach's α) is 0.788 (0.7-0.8). The KMO value is 0.648, which is higher than 0.60. It was shown that the questionnaire of good reliability and validity (Table 2 and 3). Responses were measured using a five-point Likert scale, with responses labeled as "1" (strongly disagree), "2" (disagree), "3" (undecided), "4" (agree), and "5" (strongly agree). The main study involved distributing the questionnaires randomly to learners with the assistance of their English teachers. Prior to completion, all participants were instructed to respond honestly, conscientiously, and independently. The questionnaire aims to assess the current status of English vocabulary learning strategies among senior high school students. Data collection took place online in January 2024.

Table 2: The reliability of the questionnaire

Reliability Statistics	
Cronbach Alpha	items
.788	16

Table 3: The validity of the questionnaire

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.648
Bartlett's Test of Sphericity	Approx. Chi-Square	307.459
	df	120
	Sig.	.000

3.4. Data Collection

The questionnaire was distributed to 418students and the process was powered by www.wjx.cn. As

of January, 2024, 418 questionnaires were collected, including 418 valid questionnaires. The recovery rate is 100 %. Following data collection, the author compiled and inputted the responses into computers for subsequent analysis. Using SPSS 26.0, the author analyzed the valid data to draw insights and conclusions regarding English vocabulary learning strategies among senior high school learners.

4. Major findings and discussion

4.1. Primary English Vocabulary Learning Strategies Employed

Table 4: The overall use of English vocabulary learning

Dimension	Question number	Questions	Average	Standard deviation
Meta cognitive strategies	2	Plan, preview, review	2.91	1.334
	3	Analysis		1.425
	4	Chose suitable tools		1.396
	5	Not enlarge learning resources		1.396
	6	Consciously accumulate		1.384
Cognitive strategies	7	In context	3.33	1.420
	8	Classification		1.386
	9	Learn from music, movies		1.401
	10	Take notes, mind maps		1.379
	11	Roots and affixes		1.399
Social/affective	12	Positive attitude	3.21	1.367
	13	Interest		1.339
	14	Cooperation		1.361
	15	Ask		1.368
	16	Communication		1.338

Table 5: Q6 I would consciously learn and accumulate English vocabulary that used in daily life

Options	Proportion
Strongly disagree and disagree	36.4%
Undecided	22.2%
Agree and strongly agree	41.4%

It can be seen from Table 4 that the average value of cognitive strategies is higher than the average values of 'meta cognitive strategies' and 'social/affective strategies', indicating that most of learners can use some vocabulary learning strategies. The average value of 'meta cognitive strategies' are the lowest, indicating that most of learners are poor at meta cognitive strategies. As shown in Table 5, the strategy that consciously learn and accumulate vocabulary is the least one that chose by students (36.4%). The overall situation of vocabulary learning strategies is unsatisfactory.

What teacher should consider is that how to help learners to use more strategies to enlarge their English vocabulary. What is more, teachers need to help learners to use more meta cognitive strategies and social\affective strategies. However, the most important thing is that learners themselves should responsible for their language learning. Learners should consciously learn and use vocabulary learning strategies, then enlarge their English vocabulary and language knowledge. It is undeniable that teachers have made great progress in English vocabulary teaching in senior middle school in recent years, and the overall achievements are obvious, but there still exist many problems in English vocabulary teaching. Many learners devote large amount of time and energy to learn vocabulary, but often end up with dissatisfaction with the learning result as they still fail to achieve the expected level of comprehension. Many learners learn vocabulary in ineffective way as they rote-learning vocabulary. It is quite important to make learners aware how to learn vocabulary efficiently and how to use some vocabulary learning strategies to help them learn. Although learners know how to use some vocabulary learning strategies, the efficiency of strategies use are not satisfactory.

4.2. Factors Influencing the Selection and Effectiveness of Learners' Vocabulary Learning Strategies

According to previous researches (Chamot et al 1987; O 'Malley et al 1990), there are two kinds of

factors that influence the learners' vocabulary learning strategies. The first one is individual factor, the another is the environmental factor. Individual factors include those factors, such as learning motivation, personality, and gender etc. Learners' leaning motivation are quite important factors for vocabulary learning strategies. The learning motivation has a close relationship with the selection and usage of learning strategies. As shown in Table 6, according to their response to question 12 &13, 198 students (47.4%) and 192 students (46.0%) respectively have a positive attitude to vocabulary learning and interested in vocabulary learning.

Table 6: Questionnaire responses (Q12 & Q13)

Statements	Strongly disagree and disagree	Undecided	Agree and strongly agree
12. I keep positive attitude towards English vocabulary learning, and constantly enhance my confidence in learning	30.1%	22.5%	47.4%
13. I am interested in learning vocabulary and participating various practical activities of learning and using language	31.8%	22.2%	46.0%

Table 7: Questionnaire responses (Q2-4 & Q6)

Statements	Strongly disagree and disagree	Undecided	Agree and strongly agree
2. I would preview and review according to vocabulary learning content	30.6%	23.0%	46.4%
3. When I encounter difficulties in vocabulary learning, I would analyze the reasons and try to solve it	35.2%	18.4%	46.4%
4. I would choose suitable tools to assist English vocabulary learning	34.4%	19.6%	46.0%
6. I would consciously learn and accumulate English vocabulary used in daily life	36.4%	22.2%	41.4%

Table 8: Questionnaire responses (Q5 &15 & 16)

Statements	Strongly disagree and disagree	Undecided	Agree and strongly agree
5. I get more extensive English information through the library, computer network and other resources to expand vocabulary	35.2%	23.2%	41.6%
15. When I encounter vocabulary problems, I would ask my teachers or classmate	31.3%	22.2%	46.5%
16. I can communicate with others in and out of class in English	32.1%	22.7%	45.2%

The different personality of learners had different degrees of influence on the English vocabulary learning. Moreover, some personality traits are related to the learner's strategies choice. As shown in Table 7, according to their responses to item 2 and 6, 194 students (46.4%) had different choice about the strategy of preview and review compare to other 128 students (30.6%). 173students (41%) announced different opinion about the strategy of consciously learn and accumulate vocabulary with other 152 students (36.4%). Gender differences are brought to the attention of the researchers increasingly in vocabulary learning. Researchers found that gender differences will lead to male learners and female learners use different vocabulary learning strategies. On the other hand, language is social phenomenon in human communication, it is close related to the society. The using of learning strategies in vocabulary learning is restricted by social environment. To some extent, the social environment affects the learner's strategies. Environmental factors include the setting in which learning takes place, teachers' teaching and learning environment etc. As seen in Table 8, these factors have influence to learner strategies choice to some extent. For example, responses to question 5, 194 students (41.6%) can get more resources to expand their vocabulary, some failed. 189 students (45.2%) maintain that they can communicate with

others in English. For the reason of that, teachers and learners should find more resources and create better learning atmosphere for teaching and learning.

5. Suggestions

5.1. Suggestions for teachers

(1) Meta-cognitive Strategies: Teachers should focus on introducing and promoting meta-cognitive strategies such as planning, previewing, and reviewing to enhance learners' vocabulary acquisition. Encouraging self-evaluation and self-monitoring can also aid in improving meta-cognitive skills. Moreover, teacher should encourage students to consciously learn and accumulate English vocabulary in their daily life and help learners to cultivate this habit. Additionally, teachers themselves should undergo training in vocabulary learning strategies to better support their students.

(2) Social/Affective Strategies: Teacher should enhance social and affective strategies like cooperative learning, motivation. Teachers should encourage collaborative efforts among learners, sharing strategies and common challenges. Incorporating cooperative activities and homework can foster a supportive learning environment.

(3) Cognitive Strategies: While learners exhibit a strong usage of cognitive strategies, teachers should continue to impart additional strategies and encourage their application. Providing a variety of relative strategies can further enhance vocabulary learning outcomes.

In conclusion, teachers play a pivotal role in enhancing learners' vocabulary learning strategies. Continuous training, individualized support, and innovative teaching approaches can significantly impact students' motivation, engagement, and overall language learning success.

5.2. Suggestions for learners

(1) Improving Meta-cognitive Strategies: Learners should focus on enhancing meta-cognitive skills such as preparation, previewing, and reviewing of learning content. Strengthening abilities in selective attention, self-evaluation, and self-monitoring can aid in efficient vocabulary acquisition. Especially, the strategy that consciously learn and accumulate vocabulary in daily life is most needed strategy for learners.

(2) Cognitive and Social/Affective Strategies: learners should be encouraged to use cognitive strategies like context, roots, association, and etymology to enhance vocabulary learning, foster a positive attitude, interest in occidental culture, and active participation in vocabulary-related activities to improve learning outcomes.

In a word, enhancing meta-cognitive skills by focusing on preparation, previewing, and reviewing, along with developing selective attention, self-evaluation, and self-monitoring abilities, is crucial for efficient vocabulary acquisition. Additionally, utilizing cognitive strategies such as context, roots, association, and etymology, while fostering a positive attitude, interest in occidental culture, and active participation in vocabulary-related activities, can significantly improve learning outcomes. By combining these strategies, learners can enhance their vocabulary acquisition and overall language proficiency effectively.

6. Conclusions

By investigating the current situation of the strategies employed by Chinese middle school learners in learning English vocabulary, the study revealed that there exists prevalent weakness in the use of metacognitive strategies among the Chinese learners. Although most of learners can use some vocabulary learning strategies, the overall situation of vocabulary learning strategies is unsatisfactory. In addition, this study identified two categories of influencing factors: individual and environmental.

6.1. Pedagogical implication from the study

The following two implications are generated from the results of the study. To begin with, teachers themselves should keep on training in vocabulary learning strategies and renew their teaching approaches and belief. Teachers should encourage learners to collaborate in vocabulary learning, create a supportive

learning environment and encourage students to consciously learn and accumulate English vocabulary in their daily life. Teachers also need to impart learners more relative strategies and encourage learners to use them. In addition, learners should cultivate the skills such as preparation, previewing, and reviewing of learning content and improve the abilities in selective attention, self-evaluation, and self-monitoring. Learners should consciously learn better and accumulate more vocabulary in daily life. Learners should be encouraged to use more cognitive strategies and foster a positive attitude, interest in occidental culture, and active participation in vocabulary-related activities.

6.2. The limitation of the research

This study chose its subjects from a limited population located at a particular high school in China. Hence, the subjects might not represent their counterparts who study at other schools, for they are likely to have different English proficiency, learning situation. The research method restricts the generalizability of the findings in this study. To further delves into the strategies employed by Chinese middle school learners in learning English vocabulary, it would be necessary to carry out studies on a larger scale, with an increase number of subjects from various grades and schools.

Acknowledgement

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