

Visual Analysis of Chinese Documents on Incidental Vocabulary Acquisition Based on CiteSpace

Changying Huang

College of Foreign Language, Yangzhou University, 225127, Yangzhou, Jiangsu Province, China

Abstract: Incidental vocabulary acquisition (IVA) plays a vital part in the field of L2 acquisition. It is critical for scholars to know comprehensively about the research status and hotspots of IVA in the future. This paper applies CiteSpace software to visually analyze 616 articles from CNKI. It turns out that: (1) There is a lack of cooperation from author to author, and from institution to institution. Meanwhile, the cooperation between authors is better than that between institutions; (2) The hot topics in this field are divided into six parts: involvement load, reading, influencing factors, glossing, vocabulary teaching and empirical study; (3) The development of IVA in China is roughly divided into three stages: the infancy period, the rapid growth period and the stable development period.

Keywords: Incidental vocabulary acquisition (IVA); CiteSpace; Visual analysis Introduction

Incidental vocabulary acquisition (IVA) refers to the unconscious vocabulary acquisition formed in the process of learning tasks such as reading and listening. Nagy, Herman and Anderson^[1] first proposed the concept of “incidental vocabulary acquisition” according to the rules of children’s mother tongue vocabulary learning. They held that children could basically acquire vocabulary by using it, rather than deliberately learning it. Later, Nation (1990), Laufer (1998, 2001) and Hulstijn (2001) successively developed this theory^[2]. For instance, Laufer and Hulstijn^[3] put forward the “input hypothesis”, the core idea of which was that the greater the investment is, the better the effect of IVA will be. Lots of literature reviews on IVA were issued in China, but most of them adopted the method of qualitative analysis, based on which this paper is written by the method of quantitative analysis. In this study, CiteSpace software is used to analyze the field of IVA visually, which intuitively reflects the research hotspots, the trends of development and other information in IVA field, and offers a new perspective and reference to related scholars in the future.

1. The source of data and the method of research

1.1 The source of data

The data comes from China National Knowledge Internet (CNKI). In the advanced search, set the search criteria to be precise, subject headings = vocabulary acquisition, journal sources = all journals (Chinese), time span = 2003-2022 (documents started in 2003), and the retrieval time is May 12th, 2022. After deduplication, a total of 616 articles are retrieved.

1.2 The method of research

The paper applies CiteSpace software developed by American Chinese Professor Chen Chaomei to visually analyze the results research of IVA. CiteSpace uses the running environment of Java program to identify research hotspots and frontiers in a specific field through an intuitive knowledge graph, so that scholars can quickly gain insight into the research status. The documents retrieved from CNKI are imported into CiteSpace.6.1.R2 version for visual analysis.

2. The analysis of research

2.1 The volume of publication

According to Figure 1, before 2007, the annual average volume of publication was only 10; from 2007 to 2013, that of publication had increased to 50.1, and the number of published papers in 2012

reached its peak at 63; in 2014, the research on IVA became normalized, with 26.4 articles/ year, and the overall number of published papers was in a dynamic and stable state. Therefore, the research stage of IVA can be divided into three parts:

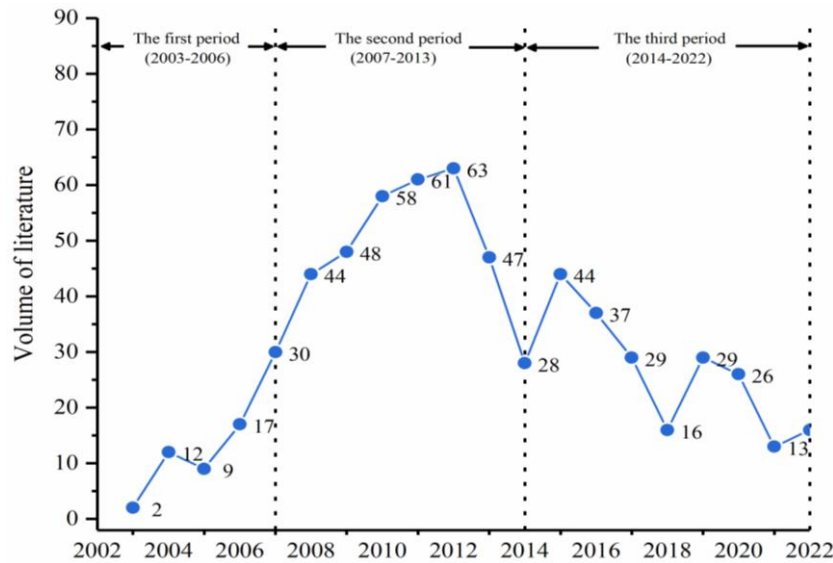


Figure 1: Volume of publications from 2003 to 2022

Infancy stage (2003-2006): Keywords included empirical analysis, glossing, vocabulary teaching, involvement load, etc. In effect, scholars in this period paid more attention to the research on IVA itself. Among them, Gai Shuhua was the first person to do some research on IVA in China, who issued an article called “An Overview of Research on Incidental Vocabulary Acquisition” in 2003.

Rapid growth stage (2007-2013): Keywords included vocabulary size, English reading, influencing factors, reading tasks, reading comprehension, listening, etc. Scholars at this stage mainly focused on the influencing factors of IVA during reading ^[4].

Stable development stage (2014-2022): The keywords were more diversified, such as meta-analysis, overview writing, case studies, output tasks, etc. Scholars began to explore the research trend and hotspots by some scientific research tools ^[5]. Moreover, Chinese scholars have attached more attention to abstract writing, holding that this kind of exercise is a better choice for incidental acquisition ^[6].

2.2 The analysis of authors

Table 1: Top 22 Authors in terms of Volume of publications

S/N	Authors / Year of first publication	Volume of papers
1	Chang Le (2009)	7
2	Xu Hong (2004)、Wu Wei (2004)、Sun Huachun (2012)、Sheng Renze (2011)	6
3	Li Hui (2008)	5
4	Zhang Haiyu (2017)、Xi Yan (2016)	4
5	Li Peihong (2007)、Zhu Yaoyao (2011)、Liu Ke (2007)、Li Mingxian (2012)、Gai Shuhua (2003)、Liu Zhen (2012)、Li Tianyi (2019)、Zhou Hao (2007)、Yi Hongbo (2012)、Yu Qingping (2011)、Si Xiaorong (2014)、Tian Qiuxiang (2005)、Wang Dongzhi (2008)、Guo Yali (2009)	3

In this study, the author co-occurrence graph (418 nodes, 104 connections) is obtained, and the density is 0.0012, which indicates that the degree of cooperation between authors is not high. Gai Shuhua is a pioneer in the study of IVA in China (see Table 1). She made comments on IVA in foreign countries mainly from four aspects: listening, speaking, reading and writing, pointing out the shortcomings of empirical research ^[7]. Chang Le ranked first in the volume of publication, with seven papers; Xu Hong, Wu Wei, and Sun Huachun Sheng Renze ranked second in terms of the number of papers (6 articles). Among them, Xu Hong and Wu Wei have a close cooperative relationship and have jointly published

papers for many times, and co-published the article called “The Effects of Different Discourse-Based Tasks on Vocabulary Acquisition in Incidental Learning Environments” in 2004. They were mainly devoted to studying the effects of word frequency, glossing, and different tasks on IVA. Li Hui (5 articles), Zhang Haiyu, and Xi Yan (4 articles) were the next most popular.

2.3 The distribution of institutions

In this study, the institution co-occurrence graph (388 nodes, 52 connections) is obtained, and the density is 0.0007, demonstrating that there is less cooperation between institutions. In Table 2, twelve institutions issue more than 4 papers. The main research forces are Shenyang Normal University, Nanjing Normal University, Bohai University and other institutions. Among them, Nanjing Normal University and Bohai University have larger nodes, testifying that these two institutions are cooperative teams as their cores respectively. But in general, various institutions are distributed independently and lack cooperation with each other, which is a problem worthy of consideration by Chinese scholars.

Table 2: Top 12 Institutions in terms of Volume of publications

S/N	Institutions / Year of first publication	Volume of papers
1	Shenyang Normal University (2006)	13
2	Nanjing Normal University (2009)	12
3	Bohai University (2009)	11
4	Nanjing University of Technology (2004)	9
5	Chongqing Three Gorges University (2011)	6
6	Jiangsu University of Science and Technology (2005)、Huaiyin Normal College (2012)、Nanjing Xiaozhuang University (2014)、Jiangnan University (2011)、Shandong University of Science and Technology (2012)、Zhejiang University of Technology (2006)、Guangzhou Vocational College of Engineering and Technology (2013)	4

2.4 Keyword co-occurrence analysis

In this study, the keyword co-occurrence graph (337 nodes, 342 connections) is obtained, and the density is 0.006, which shows that the research topics of IVA are relatively scattered. High-frequency keywords often reflect the hotspots in some field; and the centrality of keywords reflects the significance of the node in the network. Both frequency and centrality are high, which means that the topic reflected by the node is more vital. The node of “incidental acquisition” is the largest, which is the most significant co-cited keyword, with a frequency of 66 times, followed by “vocabulary teaching” (46 times). Nine keywords, whose centralities are greater than 0.1, manifests they are focuses of IVA (see Table 3).

Table 3: The order of high-frequency keywords (Frequency \geq 14)

Ranking	Keywords	Frequency	Centrality
1	Incidental acquisition	66	0.29
2	Vocabulary teaching	46	0.24
3	Vocabulary acquisition	45	0.24
4	Reading	43	0.06
5	Vocabulary	37	0.12
6	Reading tasks	24	0.15
7	Involvement Load	23	0.42
8	Empirical study	22	0.12
9	Vocabulary size	17	0.06
10	Glossing	15	0.15
11	L2 Reading	15	0.04
12	Influencing factors	14	0.19

2.5 Keyword clustering analysis

The Clustering Moule value(Q) of CiteSpace >0.3 , indicates that the clustering is significant, and the

Silhouette >0.5, testifies the clustering is reasonable. The Moule value and Silhouette in the article are 0.8619 and 0.9627 respectively, demonstrating that the clustering is valid and reasonable. A total of 15 keyword clusters are obtained, namely #0 college English, #1 vocabulary acquisition, #2 incidental acquisition, #3 reading task, etc. Table 4 is a detailed description of the clustering, in which the larger Silhouette value is, the higher criticality will be. The hotspots of IVA can be summarized into six aspects: involvement load, reading, influencing factors, glossing, vocabulary teaching and empirical study.

Table 4: Cluster co-occurrence on IVA keywords

Cluster ID	Size	Silhouette	Cluster name	Top term (log-likelihood ratio, p-level)
#0	22	0.981	College English	Extensive reading、Acquisition、Auditory input、Function
#1	22	0.95	Vocabulary acquisition	English、Intentional learning、Explicit learning、Chinese glossing
#2	20	1	Incidental acquisition	Incidental vocabulary acquisition、Listening discourse、Learner、Reading teaching
#3	19	1	Reading tasks	Input Hypothesis、Task design、Web environment、Task types
#4	17	0.925	Influencing factors	L2 Reading、Junior high school students、Ways of glossing、Intensive reading
#5	17	0.908	Involvement Load	Vocabulary teaching、Module Teaching、Vocabulary knowledge、Cognitive strategies
#6	17	1	Empirical study	Listening comprehension、Second language、Incidental vocabulary acquisition、Thematic factor
#7	15	0.973	English reading	Listening、Input、L2 Learning、Meta-analysis
#8	15	0.995	Glossing	Acquisition rate、Word frequency、L2 Beginners、Natural listening and reading
#9	15	0.938	Vocabulary learning	English vocabulary、Justification、Strategy training、Development direction
#10	14	0.931	L2 vocabulary	Multi-model、L2 acquisition、Vision、Auditory sense
#11	12	0.908	Second language	Processing conditions、Primary school students、Deep processing theory、Empirical study in China
#12	12	0.976	Word list	Enlightenment、Teaching、English Teaching、Teaching strategies
#13	11	0.98	Vocabulary size	L2 Level、Reading ability、Descriptive statistics、Purposes of reading
#14	10	0.944	Reading comprehension	Single glossing、Multiple glossing、Intentional vocabulary learning、No glossing

(1) Involvement Load. Laufer and Hulstijn (2001) put forward “input hypothesis” based on the cognitive and emotional aspects, who held that the cognitive processing level of the learners’ vocabulary will produce different effects of vocabulary acquisition. The intuitiveness of cognitive processing is measured by three indicators of input, namely need, search and evaluation. Chinese scholars successively conducted researches on the “input hypothesis”. For example, Wu Wei and Xu Hong^[8] verified the “input hypothesis” of Laufer and Hulstijn through empirical analysis, proving that in the incidental learning environment, compared with those who accepted low-investment tasks, those who accepted high-investment tasks are more likely to do well in the acquisition of receptive and productive vocabulary knowledge. But this difference only exists in the immediate test, and there is no significance in the delayed test. Wu Jianshe et al.^[9] studied the relationship among involvement load, IVA and learning effectiveness. The experimental result was more consistent with that of Wu Wei et al., showing high task input is indeed effective. However, productive and receptive tasks have slight difference on IVA, that is, the hypothesis has different effects on immediate and delayed tests. Zhou Hao^[10] proved that under the same input conditions, the effect of productive tasks on IVA is significantly better than that of receptive tasks. As a matter of fact, Chinese scholars hold that the condition of applying “input hypothesis” is

limited, but nobody can make a systematic definition of input.

(2) Reading. Gai Shuhua (2003) pointed out that reading is the most beneficial to IVA. Tian Qiuxiang et al. ^[11] tested the “input hypothesis” through three tasks with the same reading purpose. It turned out that although the purpose of reading is the same, the input of three reading tasks is different. The more input is, the more vocabulary will be acquired. Li Yan ^[12] conducted an experiment of reading task on 133 college students, and carried out immediate and delayed tests on target words. The conclusion was that the input of task is not proportional to the incidental acquisition of productive knowledge; it was recommended to make full use of reading comprehension to enhance the incidental acquisition of receptive knowledge. Zhang Xian et al. ^[13] proposed that the main function of natural reading is to provide opportunities of vocabulary exposure to form partial acquisition; students should be encouraged to read a plenty of extracurricular books to obtain the complete vocabulary acquisition. Wang Gaiyan ^[14] also had a similar finding that reading can acquire a certain amount of vocabulary knowledge, which can also be stored in long-term memory; in reading, incidental acquisition is proportional to second language level and vocabulary knowledge. Sun Huachun ^[15] held that reading tasks can promote higher vocabulary acquisition, and incidental learning and intentional learning need to be organically combined to improve deep vocabulary processing. Chinese scholars tend to use the two theories of input and output as the support to test the “input hypothesis” in reading tasks, and then explain IVA in the reading process.

(3) Influencing factors. Liang Duanjun ^[16] believed that IVA is a “by-product” produced in reading, so the influencing factors are mainly divided into four parts: discourse, vocabulary, learner and context. Zou Qiming et al. ^[17] drew conclusions that readers’ background and familiarity with articles can affect IVA; vocabulary appearing in reading may be acquired only after deep processing. Guo Yali ^[18] analyzed the cognitive factors affecting IVA, including cognitive context, mental schema, selective attention and processing ways from the perspective of cognitive psychology. Liu Ke ^[19] summarized the factors that influence IVA into four aspects: vocabulary size, involvement load, word guessing ability and contextual clues. The first three ones mainly belong to learner factors, and the fourth one belongs to discourse factors. Miao Lixia ^[20] made an in-depth study, indicating that the incidental acquisition of second language vocabulary is restricted by many factors, but the existing research mainly classify the influencing factors into two categories: discourse and learner factors, and very few attach importance to lexical ontology factors; in the study of learner factors, scholars focus more on language factors and ignore cognitive and affective factors. In general, the current research still focuses on learners and discourse factors, and the dimensions of the division of various factors remain to be explored.

(4) Glossing. Duan Shiping et al. ^[21] used three methods to annotate new words. The research proved that multiple-choice glossing and single-item definition glossing have obvious effects on IVA, and the order of effect of the three methods is as follows: multiple-choice glossing > single definition glossing > no glossing. Lv Hongmei ^[22] held that in the beginning of vocabulary learning, Chinese glossing is more conducive to vocabulary acquisition than English glossing; meanwhile, word glossing after reading is more beneficial to high-level vocabulary acquisition. Xu Hong ^[23] pointed out that for L2 beginners, L1 glossing is better to vocabulary acquisition than L2 glossing, while that is the opposite for those with a higher level, which coincides with Lv Hongmei’s opinion. He also proposed that multimedia glossing improves IVA more than text or image glossing alone. Zheng Dingming ^[24] also thought that, compared with Chinese, English or picture glossing, hypermedia glossing (Chinese + picture glossing) is the most effective way for IVA. Cao Jiaxue ^[25] stated that two English glosses are better than a single English or Chinese glossing in the immediate test, but all three glosses are invalid in the delayed test; most existing textbooks using traditional word glossing are not beneficial to IVA. Meng Chunguo ^[26] proposed that word glossing can affect IVA more than no glossing, side note is better than endnote under the same language glossing, and that glossing helps to maintain vocabulary acquisition.

(5) Vocabulary teaching. Xu Zhimin et al. ^[27] pointed out that the significant premise of IVA is to guess the meaning of words correctly, which vocabulary size is a vital factor affecting. During college English teaching, vocabulary size should be expanded by means of deliberate vocabulary learning and auxiliary vocabulary acquisition. Gao Xinhua ^[28] believed that when learners read widely, they can fully use margin glossing or context to guess the meaning of words, which not only helps to understand the content of articles, but also establishes the connection between old and new knowledge, thereby promoting incidental vocabulary learning. Chen Xiongxin et al. ^[29] stated that vocabulary teaching guided by prototype category theory can improve students’ ability to use vocabulary strategies, and is also conducive to IVA. Liu Yanmei ^[30] proved that intentional learning in vocabulary teaching is better than incidental acquisition in one reading, and vocabulary size affects the incidental acquisition of new and old vocabulary. Ren Hulin et al. ^[31] proposed that in vocabulary teaching, it is necessary to design hierarchically organized writing training based on the characteristics of evaluation intensity and in-depth

processing according to the target vocabulary, so that effective vocabulary acquisition can be achieved. The research on vocabulary teaching in China is relatively mature, but the relationship between vocabulary teaching and IVA still needs to be deeply explored.

(6) Empirical research. Sheng Renze ^[32] empirically studied the effects of cooperative output and listening input on the incidental acquisition of productive and receptive vocabulary. He found that the former is better than the latter, and cooperative oral output is better than cooperative written output. He also explored metacognitive strategies, concluding that it is helpful to students' listening comprehension and IVA, but the productive effect of IVA is not significant ^[33]. Liu Zhen ^[34] conducted an empirical analysis of multimedia glossing, testifying that the glossing before listening is the most profitable to listening comprehension, and that the effect of multimedia glossing is better than that of plain text glossing. However, it is essential to control the number of glosses, otherwise it will interfere with listening comprehension. He studied the weight of "search" and "evaluation" in input hypothesis, indicating their effects on IVA are determined by involvement load and test time ^[35]. Xi Yan ^[36] researched the effects of second language lexical ability and involvement on IVA, and the results indicated that in the immediate IVA and the delayed vocabulary memory test, the interaction between L2 lexical ability and involvement was not significant. The scholar also added the conclusion that "the 'input hypothesis' is only partially confirmed" on the original basis ^[37].

2.6 Research trends analysis

Burst words refer to the specialized terms with high change frequency in a short period by counting citation keywords, which can reflect the research trends in some field. In CiteSpace, "Strength" means the emergent strength; "Begin" means the emergent start year; "End" means the emergent end year. The keyword with the highest frequency was "Vocabulary size"(see Table 5), with the strength value 5.26, demonstrating that Chinese scholars took "vocabulary size" as a hot topic of IVA during 2007-2010; "listening" with the strength value 3.4, indicated that during 2017-2022, scholars focused on the effect of listening on IVA. Keywords involved in reading were "reading task", "reading comprehension" and "English reading", which maintained a high emergent intensity in 2009-2013, 2011-2013, and 2017-2022 respectively. Moreover, keywords such as "meta-analysis", "listening", "English reading" and "multimodality" have become research hotspots of IVA in the recent years.

Table 5: Top 13 Keywords with the Strongest Citation Bursts

Keywords	Year	Strength	Begin	End	2003-2022
Context	2003	2.68	2005	2008	
Vocabulary learning	2003	1.99	2006	2007	
Vocabulary size	2003	5.26	2007	2010	
L2 language	2003	2.21	2007	2008	
Teaching strategies	2003	1.93	2007	2010	
Reading comprehension	2003	2.91	2011	2013	
Reading tasks	2003	2.61	2012	2013	
Ways of glossing	2003	2.54	2014	2015	
Types of tasks	2003	1.95	2014	2017	
Meta-analysis	2003	2.08	2016	2022	
Listening	2003	3.4	2017	2022	
English reading	2003	2.75	2017	2022	
Multimodality	2003	3	2018	2022	

3. Conclusion

This paper takes the journals in the CNKI database as the object, and applies the CiteSpace software to conduct a visual analysis, including the content of authors, institutions, keywords, and the number of published articles, to explore the research status and development of IVA. The following main conclusions are drawn: (1) There is a lack of cooperation between authors or institutions, and the degree of cooperation between authors is better than that between institutions. (2) The research hotspots in this field are summarized into six aspects: involvement load, reading, influencing factors, glossing, vocabulary teaching and empirical study. (3) The research trend in China is roughly divided into three stages: 2003-2006 was in its infancy, inclined to study the IVA itself; 2007-2013 was a period of rapid growth, focusing on studying the influencing factors of IVA in the reading process; 2014-2022 is a period

of stable development, in which the research content is more diversified and visualized.

References

- [1] NAGY W E, HERMAN P A, ANDERSON R C. *Learning words from context [J]. Reading Research Quarterly*, 1985, 20(2): 233-53.
- [2] Wang dongzhi. *An Empirical Research Survey on Incidental Vocabulary Acquisition [J]. English Research*, 2008, 6(04): 28-32.
- [3] LAUFER. *Incidental Vocabulary Acquisition in a Second Language: the Construct of Task-Induced Involvement [J]. Applied Linguistics*, 2001, 22(1): p ágs. 1-26.
- [4] Wang Gaiyan. *A Study on Incidental Vocabulary Acquisition during Second Language Natural Reading [J]. Foreign Language Teaching*, 2008, (06): 56-60.
- [5] Yi Hongbo, Pei Xuemei. *Visual Analysis of Incidental Acquisition of Domestic Second Language Vocabulary Based on CiteSpace [J]. Foreign Language and Literature*, 2018, 35(03): 263-75.
- [6] Xi Yan. *The Effect of Summary Writing and Sentence-making on English Learners' Incidental Vocabulary Acquisition [J]. Journal of Jilin Provincial Institute of Education*, 2021, 37(05): 74-7.
- [7] Gai Shuhua. *An Overview of Research on Incidental Vocabulary Acquisition [J]. Journal of the PLA Foreign Languages Institute*, 2003, (02): 73-6.
- [8] Wu Wei, Xu Hong. *The Effects of Different Discourse-Based Tasks on Vocabulary Acquisition in Incidental Learning Environments [J]. Shandong Foreign Language Teaching*, 2004, (06): 28-31.
- [9] Wu Jianshe, Lang Jianguo, Dang Qun. *Incidental Vocabulary Acquisition and the "Input Hypothesis" [J]. Foreign Language Teaching and Research*, 2007, (05): 360-6+401.
- [10] Zhou Hao. *An Empirical Study Based on Input Hypothesis [J]. Foreign Language Teaching Theory and Practice*, 2008, (01): 19-25.
- [11] Li Hong, Tian Qiuxiang. *A Study on Incidental Acquisition of Second Language Vocabulary [J]. Foreign Language Teaching*, 2005, (03): 52-6.
- [12] Li Yan. *The Effect of Different Input Tasks on the Incidental Acquisition of Productive Vocabulary Knowledge [J]. Foreign Language Teaching Theory and Practice*, 2008, (02): 6-9+22.
- [13] Zhang Xian, Qi Luxia. *A Study on Incidental Vocabulary Acquisition in Natural Reading [J]. Foreign Language Teaching and Research*, 2009, 41(04): 303-8+21.
- [14] Wang Gaiyan. *A Study on the Incidental Acquisition of Vocabulary in Second Language Natural Reading [J]. Journal of the PLA Foreign Languages Institute*, 2009, 32(05): 48-53.
- [15] Sun Huachun. *The Effect of Reading Input Task on Incidental Acquisition of Second Language Vocabulary [J]. Journal of Hunan Agricultural University (Social Science Edition)*, 2012, 13(02): 72-8.
- [16] Liang Duanjun. *A Survey of Research on Incidental Vocabulary Acquisition in L2/FL Reading [J]. Foreign Language Teaching Abroad*, 2005, (04): 50-6.
- [17] Zou Qiming, Guo Jinjun. *Factors Affecting Incidental Vocabulary Acquisition in English Reading [J]. Journal of Guangdong University of Foreign Studies*, 2008, (02): 97-100.
- [18] Guo Yali. *Cognitive Factors Affecting the Effect of Incidental Vocabulary Acquisition [J]. Journal of Zhejiang University of Technology (Social Science Edition)*, 2009, 8(02): 179-84.
- [19] Liu Ke. *An Analysis of the Factors Affecting the Incidental Vocabulary Acquisition in Reading [J]. Journal of Yellow River University of Science and Technology*, 2010, 12(03): 113-5.
- [20] Miao Lixia. *A Review of 30 Years of Incidental Acquisition of Second Language Vocabulary [J]. Foreign Language Teaching Theory and Practice*, 2014, (01): 23-9+93.
- [21] Duan Shiping, Yan Chensong. *The Effect of Multiple-Choice Glossing on Incidental Acquisition of English Vocabulary [J]. Foreign Language Teaching and Research*, 2004, (03): 213-8.
- [22] Lv Hongmei, Yao Meilin, Du Yumin. *Research on the Influence of Word Glossing on Vocabulary Learning in English Reading [J]. Psychological Science*, 2005, (06): 137-9+20.
- [23] Xu Hong. *Glossing and Incidental Acquisition of Second Language Vocabulary [J]. Journal of Nanchang Institute of Education*, 2007, (02): 38-40.
- [24] Zheng Dingming. *The Influence of Hypermedia Glossing on Incidental Acquisition of Second Language Vocabulary [J]. Modern Educational Technology*, 2009, 19(06): 50-3+49.
- [25] Cao Jiaxue, Song Jiao. *The Influence of different Ways of Glossing on Incidental Vocabulary Acquisition [J]. Journal of Foreign Languages*, 2014, (01): 117-20.
- [26] Meng Chunguo, Chen Liping. *The Effect of New Word Glossing on Time-Limited Reading Comprehension and Incidental Vocabulary Acquisition [J]. Foreign Languages and Foreign Language Teaching*, 2015, (01): 50-5+61.
- [27] Xu Zhimin, Wang Ying. *An Analysis of Incidental Vocabulary Acquisition and College English Vocabulary Teaching [J]. Journal of Mudanjiang Normal University (Philosophy and Social Sciences Edition)*, 2009, (03): 70-2.

- [28] Gao Xinhua. *A Study on the Dualistic Unity of Intentional Acquisition and Incidental Acquisition of English Vocabulary* [J]. *Shandong Foreign Language Teaching*, 2010, 31(05): 55-9.
- [29] Wang Fen, Chen Xiongxin. *The Application Research of English Vocabulary Teaching under the Guidance of Prototype Category Theory* [J]. *Foreign Languages*, 2010, 26(04): 114-6.
- [30] Liu Yanmei. *An Empirical Study on the Organic Combination of Foreign Language Vocabulary Teaching and Incidental Acquisition* [J]. *Journal of Chengdu Normal University*, 2015, 31(03): 18-25.
- [31] Ren Hulin, Liu Yaling. *A Study on the Effect of Equal Input Tasks on Incidental Vocabulary Acquisition* [J]. *Chinese Foreign Languages*, 2020, 17(02): 67-73.
- [32] Sheng Renze, Wang Kun. *Research on the Different Effect of Cooperative Output and Listening Input on Incidental Vocabulary Acquisition* [J]. *Foreign Languages and Chinese*, 2011, 27(02): 117-21.
- [33] Sheng Renze. *Listening Comprehension and Incidental Vocabulary Acquisition under the Observation of Metacognitive Strategies* [J]. *Chinese Adult Education*, 2011, (09): 156-7.
- [34] Liu Zhen. *An Empirical Study on the Effect of Multimedia Glossing on English Machine-Assisted Listening Comprehension and Incidental Vocabulary Acquisition* [J]. *Journal of the PLA Foreign Languages Institute*, 2015, 38(03): 96-104.
- [35] Liu Zhen. *An Empirical Study on the Weight Comparison of "Search" and "Assessment" in Input Hypothesis* [J]. *Journal of the PLA Foreign Languages Institute*, 2021, 44(04): 105-14+60.
- [36] Xi Yan. *An Empirical Study on the Effects of Second Language Vocabulary Ability and Task Input on Incidental Acquisition of Second Language Vocabulary* [J]. *Journal of Cangzhou Normal University*, 2016, 32(02): 73-6+114.
- [37] Xi Yan. *An Empirical Study on the Influence of Second Language Level and Input on Incidental Acquisition of Second Language Vocabulary* [J]. *Journal of Cangzhou Normal University*, 2020, 36(01): 94-7.