

The Investigation of the English Grammar Learning Strategies of Senior High School Students

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Abstract: This study attempts to investigate the use of grammar learning strategies among 158 senior high school students in Qiannan Prefecture, Guizhou Province, through a questionnaire survey. The results of data analysis show that the subjects' overall awareness of using grammar learning strategies is in the relatively low level; there is no significant difference in high and low grouping in the overall use of grammar learning strategies and cognitive strategies, but there exists significant differences in metacognitive, affective and social strategies. Therefore, to strengthen students' grammar learning in senior high school, teachers should make the use and guide students' grammar learning strategies pertinently, and students should pay more attention to the application of grammar learning strategies in grammar learning.

1. Introduction

English grammar learning is an important component of English language learning, which directly affects the formation of students' comprehensive language application ability^[1]. Grammar has always been regarded as a difficulty in English learning, and its teaching has been in a time-consuming and inefficient state for a long time. In the past, the focus of grammar teaching was more prone to teachers' teaching and less to students' learning. D. A. A famous English linguist, Wilkins said: "No grammar, very little expression; no vocabulary, the expression is zero." A word without grammar is like scattered leaves, no branches^[2]. O'Malley and Chamot discuss the connection between grammar and strategies by enumerating the learning strategies used by successful learners, but when describing some strategy studies applied to second language learning, they do not describe any research applied to grammar learning^[3]. Cheng Xiaotang and Zheng Min think that it is not possible not to learn grammar, or as well as a strategy^[4].

2. Literature Review

2.1 Research on Grammar Learning Strategies Abroad

Naiman lists some techniques for grammar learning, such as following the grammar rule in the text^[5]. Rubin and Thompson in *How to Be a More Successful Language Learner* proposed the eight-point grammar learning methods^[6]. Ellis believes that, by cultivating their grammar

awareness, learners can actively discover the laws of language learning and promote the acquisition of the target language by thinking about further understanding these laws. Although O'Malley and Chamot discuss the connection between grammar and strategy by enumerating the learning strategies used by successful learners, when they describe some strategy studies applied to second language learning, they do not describe any research applied to second language learning^[7]. Charlotte think that the application of metacognitive cognition in grammar learning strategy and cognitive strategy is very necessary, she studied 144 learners have mastered multiple languages use grammar learning strategy, the results found that, learners master the more language type, they use the number of grammar learning strategy also increased, the strategy is used more frequently. Tilfarliodgu and Yalcin studied 425 students in a Turkish university preparatory class and concluded that the influence between students' grammar performance and the choice of grammar learning strategies was smaller, but that student gender, length of English study, and high school educational background would influence the choice of grammar learning strategies^[8].

2.2 Research on Grammar Learning Strategies in China

In 1996, Wen Qiufang, a pioneer of studying language learning strategies in China, officially published the monograph on *English Learning Strategies*. According to Jia Guanjie, grammar should be learned by reading articles, and should have the ability to find and summarize mistakes and avoid repeating mistakes in grammar learning^[9]. In 2002, Cheng Xiaotang and Zheng Min put forward some guiding suggestions, on how to cultivate and develop students' learning strategies^[10]. Wang Aizhi discussed the grammar learning strategies of the public English students in the school, and introduced the grammar learning strategies for the problem of the students' weak grammar knowledge. Chen Meimei et al. believe that different types of learners also use different learning strategies than^[11]. Using quantitative and qualitative research, Guo Xuelin launched a survey of on the use of English grammar learning strategies among English English and Chinese-English students in Inner Mongolia Normal University^[12]. Zhou Zhen and Zeng Xiu investigated and analyzed the use of grammar learning strategies for English sophomores, and the results showed that the use level of grammar learning strategies is low; grammar learning strategies and English grammar performance. Zhang Zhiwei investigated the use of grammar learning strategies by high school students, revealed how often they used different grammar learning strategies, and explored the relationship between grammar learning strategies and high school students' gender, personality, and with their academic performance. Lin Huimin explored the continuous relationship of among the grammar learning strategy, grammar ability and writing ability of senior high school students through empirical research methods^[13].

Throughout the research of grammar learning strategies by scholars at home and abroad, most researchers tend to study teachers 'grammar teaching strategies and grammar teaching methods, but relatively few researchers study students' grammar learning strategies from the perspective of students, and even more than few studies on the grammar learning strategies of senior high school students.

3. Research Design

3.1 Research Questions

(1) What is the overall use of English grammar learning strategies for senior high school students?

(2) Are there any significant differences in the use of grammar learning strategies between high-scoring students and low-scoring students?

3.2 Research Subjects

The subjects is sophomore students from two high schools in Qiannan, Guizhou Province. First of all, 50 students from a high school were randomly selected for pre-test, 50 were issued, 49 were recovered, and invalid questionnaires were removed. The valid questionnaires and the reliability of 0.916, reached the standard. Subsequently, a formal test was conducted, and a total of 180 students from a high school were randomly selected. 180 questionnaires were sent and 160 were recovered. The valid questionnaire was 158 and the reliability was 0.874.

3.3 Research Instruments

3.3.1 Questionnaire

The questionnaire mainly includes two parts, the first part is the basic information of the research object; the second part is the by master's thesis questionnaire of Minnan Normal University^[14], Zhou Qianqian refers to the strategy classification and description of Cheng Xiaotang and Zheng Min, and wrote 39 strategies according to the previous test data^[15]. Among them, cognitive strategy number is 1~ 16, metacognitive strategy number is 17 ~ 26, emotional strategy number is 27 ~33, and communication strategy number. Is 34~ 39. The questionnaire adopts Likert Likert scale (1= complete compliance; 2= inconsistent; 3= uncertain; 4= compliance; 5= full compliance). The frequency of syntactic learning strategy use is divided by Oxford standard: the average score 4.5 ~ 5 means always using learning strategy;3.5 ~ 4.4 means usual use; 2.5 ~ 3.4 means general usage;1.5 ~ 2; 4-means basically unused; 1.0 ~ 1.4 means almost no using^[16].

3.3.2 Grammar Ability Test Volume

Senior high school students have completed the high school English education edition compulsory one to five and elective six to eight, so the test volume uses the 2018 National Volume 3 small essay questions 61-70 and the 2019 National Volume 3 short essay correction, with a total score of 25 points.

3.4 Data Analysis

The statistical analysis was performed using SPSS25.0 statistical software.

4. Results and Analysis

4.1 Overall Use of English Grammar Learning Strategies

According to Table 4.1, the overall situation mean value of subjects using syntactic learning strategies was 2.99, indicating that the frequency of using syntactic learning strategies is moderate. First, From the mean values of subjects using these four classes of syntactic learning strategies, The most frequently used are the metacognitive and affective strategies, It shows that high school students will consciously learn grammar and learn grammar when they have a positive attitude; Second, the cognitive strategies, It shows that high school students' English grammar learning goals are not clear, there is no targeted grammar learning plan, there are few opportunities to participate in English grammar learning such as special grammar training, lectures and competitions inside and outside the class, and the awareness of learning grammar through various channels is weak; social strategies are used at the lowest frequency, indicating that high school students rarely consult with their teachers or classmates when they encounter grammatical difficulties and doubts, and also have

a weak awareness of using other learning tools.

Table 1: Overall use of English grammar learning strategies

	N	mean	Standard Deviation
Cognitive strategy classification	158	3.13	.48976
metacognitive strategy classification	158	3.14	.63754
affective strategy classification	158	3.14	.63754
social strategy classification	158	2.89	.60491
Grammar learning strategy classification	158	2.99	.46602

4.2 Comparison of the Use of Grammar Learning Strategies between High and Low Group Students

Table 2: Differences in the Overall Strategy between High and Low Group Students

	t-test for Equality of Means				
	F	Sig.	t	df	Sig.(2-tailed)
Cognitive strategy classification	.315	.576	1.911	92	.059
			1.902	87.484	.060
Metacognitive strategy classification	2.052	.155	2.716	92	.008
			2.648	75.979	.010
affective strategy classification	2.052	.155	2.716	92	.008
			2.648	75.979	.010
Social strategy classification	1.565	.214	2.176	92	.032
			2.142	81.933	.035
Grammar learning strategy classification	3.707	.057	1.918	92	.058
			1.861	73.123	.067

In order to further test the differences of students in grammar learning strategies, the researchers first determine that 158 subjects grammatical high scores 25% and low scores 25%, so the high group grammar score interval is 12.5-25 points, low group score interval in 0-7 points, thus determine the high group 43 people and low group 51 people. The investigators used an independent sample t-test to analyze and compare the use of grammar learning strategies in high and low group students. The results (Table4.2) shows that the mean of high and higher than low groups in cognitive, metacognitive, emotional, and affective strategies showed significant differences in metacognitive ($p=0.008$), emotional ($p=0.008$) and affective ($p=0.032$), and cognitive ($p=0.059$) and grammar learning ($p=0.058$). Moreover, the average difference between the metacognitive strategy and the emotional strategy usage was the largest between the two groups, while the smallest average difference was for the grammar learning strategy overall. This shows that the high and low group students had the largest difference in the use of metacognitive and affective

strategies, and the smallest difference in the overall use of syntactic learning strategies.

4.3 Differences between High and Low Groups in Various Dimensions

4.3.1 Cognitive Strategies

Table 3: Independent Sample Test of Cognitive Strategies Use among High and Low Group Students

	t-test for Equality of Means				
	F	Sig.	t	df	Sig.(2-tailed)
1	.459	.500	-.080	92	.936
			-.080	85.769	.937
2	1.165	.283	2.324	92	.022
			2.300	84.797	.024
3	2.525	.116	-1.151	92	.253
			-1.136	83.345	.259
4	3.061	.084	1.163	92	.248
			1.146	82.408	.255
5	.486	.487	1.358	92	.178
			1.368	91.336	.175
6	.258	.613	-.438	92	.663
			-.437	88.560	.663
7	.051	.822	.087	92	.931
			.088	91.141	.930
8	4.495	.037	1.291	92	.200
			1.261	77.081	.211
9	.112	.738	1.778	92	.079
			1.768	86.987	.081
10	2.877	.093	1.118	92	.267
			1.136	91.961	.259
11	1.714	.194	1.639	92	.105
			1.615	82.509	.110
12	1.034	.312	.780	92	.437
			.767	80.854	.446
13	.004	.953	1.514	92	.133
			1.507	87.555	.135
14	.208	.649	1.941	92	.055
			1.910	81.546	.060
15	6.396	.013	2.382	92	.019
			2.329	77.796	.022
16	.114	.736	.757	92	.451
			.751	85.711	.455

According to (Table 4.3), high and low group students are in cognitive strategy item 2 (I concentrate and think actively. $P=0.022$) and item15 (I often make associative memory when memorizing grammar rules. $P=0.022$) with a difference. In the future teaching, teachers should encourage students to think positively and use the associative memory grammar rules.

4.3.2 Metacognitive Strategies

According to (Table 4.4), there is no significant difference between high and low group students in each dimension. In the future grammar teaching, teachers should pay special attention to the integrated use of this strategy.

Table 4: Independent Sample Test on the Use of Metacognitive Strategies for High and Low Group Students

	t-test for Equality of Means				
	F	Sig.	t	df	Sig.(2-tailed)
17	.059	.809	1.359	92	.177
			1.350	86.710	.180
18	.179	.674	-1.716	92	.089
			-1.711	88.261	.091
19	5.788	.018	1.303	92	.196
			1.267	74.199	.209
20	5.894	.017	-.170	92	.865
			-.166	77.578	.868
21	6.237	.014	-.211	92	.834
			-.205	74.257	.838
22	1.016	.316	-.214	92	.831
			-.211	81.753	.834
23	7.400	.008	-1.334	92	.185
			-1.295	73.083	.199
24	4.865	.030	-.134	92	.894
			-.130	75.055	.897
25	.236	.628	1.890	92	.062
			1.884	88.051	.063
26	3.270	.074	-.316	92	.753
			-.311	81.162	.757

4.3.3 Affective Strategy

Table 5: Independent Sample Test on the Use of Affective Strategies for High and Low Group Students

	t-test for Equality of Means				
	F	Sig.	t	df	Sig.(2-tailed)
27	.444	.507	.899	92	.371
			.893	86.485	.374
28	.917	.341	1.484	92	.141
			1.465	83.359	.147
29	2.684	.105	3.643	92	.000
			3.590	82.442	.001
30	.154	.696	2.409	92	.018
			2.399	87.691	.019
31	1.515	.222	.554	92	.581
			.547	83.641	.586
32	4.189	.044	.859	92	.392
			.839	76.673	.404
33	.987	.323	3.240	92	.002
			3.197	83.210	.002

According to (Table 4.5), students in high and low groups are known in the emotional strategy item 29 (I gradually build up my confidence in learning grammar in the process of grammar learning. $P=0.000$), item 30 (I try to overcome the anxiety in grammar learning. $P=0.018$), and item 33 (In English learning, I am willing to help my classmates in grammar learning. $P=0.002$). There are significant differences; in the future grammar learning, students should build up confidence, overcome anxiety and to discuss and learn grammar with other students.

4.3.4 Social Strategy

Table 6: Independent Sample Test on the Use of Social Strategies for High and Low Group Students

	t-test for Equality of Means				
	F	Sig.	t	df	Sig.(2-tailed)
34	.004	.949	2.014	92	.047
			2.008	88.268	.048
35	.472	.494	.505	92	.615
			.508	91.247	.613
36	.282	.596	.166	92	.868
			.165	85.342	.869
37	6.338	.014	.883	92	.380
			.863	77.909	.391
38	.195	.660	2.807	92	.006
			2.805	89.132	.006
39	.191	.663	1.858	92	.066
			1.848	87.206	.068

According to (Table 4.6), the high and low groups are item 34 (I can actively use the grammar knowledge in oral and written expression. $P=0.047$) and item 38 (In oral and written expression, I always use the learned grammar knowledge to achieve accurate language expression. $P=0.006$) showed a significant difference. In the future teaching, teachers should actively encourage students to use oral expression and written form to consolidate learning grammar.

5. Conclusion

Through the above investigation and analysis, the research results can be summarized as follows: Firstly, senior high school students have poor overall awareness of using grammar learning strategies.

Secondly, there were no significant differences in the overall use of high and low grammar learning strategies and cognitive strategies, but have significant differences in the use of metacognitive, affective, and social strategies.

At first, teachers should properly penetrate the knowledge of grammar learning strategies, enhance students' strategic awareness, encourage students more, and help them establish confidence in grammar learning; students should play their initiative, and gradually strengthen the awareness of grammar learning strategies through cooperation, experience and inquiry to use grammar learning strategies.

Second, teachers should provide targeted guidance to students during the guidance and training of grammar learning strategies, such as middle students and poor students should pay special attention to emotional guidance, train students to establish and adjust learning objectives, choose learning methods and skills, evaluate and detect students' learning results to monitor and adjust

learning grammar behavior; students should also have the ability to use grammar learning strategies, and can use grammar learning strategies according to their own situation.

Third, the importance of communication more need to cause the attention of students and teachers, in the four types of grammar learning strategy, high school students use communication strategy is low frequency, teachers should encourage students to use all kinds of communication opportunities to learn grammar, through cooperative learning to solve the problems encountered in the process of grammar learning, and create communication atmosphere to help them learning grammar. It also provides students with as many resources as possible to help with grammar learning, such as video, recording and other audio and visual materials. The ultimate goal of grammar learning is also to serve the communication. Students who actively use the learned grammar knowledge when communicating with others can strengthen the memory and use of knowledge points.

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