An Empirical Study on the Core Literacy of English Language Competence in the Writing Corpus of Chinese Junior High School Students

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Abstract. In 2022, the Ministry of Education of China published *English Curriculum Standards for Compulsory Education*, which pointed out that the four core qualities refer to language ability, cultural awareness, critical thinking, and learning ability. Language ability is the basic element of core literacy; cultural awareness reflects the value orientation of core literacy; critical thinking reflects the mental characteristics of core literacy, and learning ability is a key element in the development of core literacy. After the Guidance was released, different scholars and experts interpreted and guided English teaching theoretically. This paper is an empirical study and analyses the use of the written language of junior high school students. By constructing English writing corpus, it explores the language knowledge and ability reflected in the composition of junior high school students, aiming to find out the current situation of the students' English language core literacy. The purpose is to provide reliable data for improving the English teaching effectiveness and propose the ways of teaching to improve the relevant core literacy in students' written English.

Keywords: Chinese English education · Junior high school · language core literacy · writing corpus

1 Introduction

In 2014, the concept of "core literacy" was first proposed in the history of Chinese education (OECD.[1]). According to the definition of the OECD, competence "is not only knowledge and skills, but also the ability of individuals to mobilize and utilize various psycho-social resources (including various skills and attitudes) to meet complex needs in specific situations". It goes beyond the scope of "cognitive ability" and is not limited to the connotation and extension of "ability" in the traditional sense, but includes "various knowledge, skills, attitudes, and values". Based on the concept of core literacy, the overall framework of "Developing Core Literacy for Chinese Students" was promulgated in 2016. This framework points out that students should develop core literacy, mainly referring to the necessary qualities and key abilities that students should possess to adapt to the needs of lifelong development and social development (2030).

Studying the development of students' core literacy is an important measure to implement the fundamental task of establishing morality and cultivating people, and it is also an urgent need to adapt to the development trend of world education reform and enhance the international competitiveness of China's education. The development of core literacy for Chinese students includes 1 core, 3 principles, 6 literacy, and 18 key points. One core is to cultivate "all-round development people". Three principles mean scientific principle, contemporary principle, and national principle. Six qualities include cultural heritage, scientific spirit, learning to learn, healthy life, responsibility, and practical innovation. 18 key points are composed of humanistic accumulation, humanistic feelings, aesthetic taste, rational thinking, critical questioning, courage to explore, love learning and good learning, diligence in reflection, information awareness, cherish life, improve personality, self-management, social responsibility, national identity, international understanding, labor awareness, problem solving, and technology application.

On the basis of this framework, curriculum standards for compulsory education in different disciplines have also been issued. Taking English teaching as an example, based on the curriculum standards in 2011, there has been an updated version in 2017. Recently, the 2022 version of the "English Curriculum Standards for Compulsory Education" has been issued. The English curriculum content consists of such elements as themes, discourse, language knowledge, cultural knowledge, language skills, and learning strategies. Centering on these elements, through activities such as learning and understanding, application practice, and migration and innovation, we can promote the sustainable development of students' core literacy throughout compulsory education. The four core qualities in the latest edition of the English Curriculum Standards refer to language ability, cultural awareness, critical thinking, and learning ability. Language ability is the basic element of core literacy, cultural awareness reflects the value orientation of core literacy. Critical thinking reflects the mental characteristics of core literacy, and learning ability is a key element in the development of core literacy. The four aspects of core literacy permeate each other, integrate and interact, and develop in synergy. Core literacy is proposed by Chinese scholars on the basis of studying relevant concepts abroad and combining the actual situation of education in China. Core literacy is a concentrated manifestation of the value of curriculum education, and it is the gradual formation of students through curriculum learning to adapt to personal lifelong development and social development.

Different scholars and experts have also interpreted the new Curriculum Standards. Based on the composition of the content, Wang Qiang, Zhou Mi, and Sun Wanlei (Ministry [5]) explored the deep structure of the curriculum standards. From the perspective of curriculum theory and pedagogy, they analyzed the internal knowledge types behind the six elements of the curriculum content of the new English curriculum standards, and extracted the deep knowledge structure composed of four types: language knowledge, cultural knowledge, method knowledge, and value knowledge, this provides teachers with a reference to the core of educating people. Cheng Xiaotang provides operational and practical guidance on key issues such as the unity of instrumental and humanistic

nature, the themes and texts in English course content, and the concept of English learning activities. Mei Deming and Wang Qiang provided guidance on content organization, teaching methods, and hierarchical curriculum system design (Bloom[7]).

From the current research literature, it can be seen that relevant research is basically based on theoretical interpretation and guidance. With the guidance of the curriculum outline and the guidance of basic education experts, the specific implementation of the compulsory education English curriculum outline and its teaching effectiveness deserve research attention. This paper is an empirical study from the students' written language expression as the research object. By constructing English writing corpus, this paper aims to explore the language knowledge and ability reflected in middle school students' English compositions according to the application of words, phrases, namely adjectives, adverbs, nouns and other parts of speech required by the syllabus, as well as the application of grammatical structure and discourse elements in the text, so as to find out the current situation of middle school students' English expression skills. The purpose is to provide reliable data for improving the effectiveness of English teaching and propose relevant teaching ways for improving core literacy in English writing (Deming and Qiang[8]).

2 Research Methods

This paper uses the corpus analysis method to analyze language ability according to the four aspects of words, phrases, sentence structure, grammar and discourse required by the outline. This corpus includes 90 student mid-term exam compositions with a total word count of 9521 English characters. The students come from a middle school in a prefecture level city, and are in the eighth grade of the junior high school phase of compulsory education. The main content of this composition is to describe and narrate one's daily activities (Yuanxiang[9]). The knowledge points include the general present tense (Mennelstein[10]). Another key point of knowledge is the use of adjectives in the original, comparative, and superlative levels. The tool used for corpus analysis is Antconc, a corpus retrieval tool that is suitable for collocation, vocabulary, and word frequency research (Yuanxiang[11]). The developer of the software is Laurence Anthony, a professor at Waseda University in Japan. A very important function of AntConc is to calculate the thematic relevance of the subject words in the observed corpus relative to the reference corpus.

3 Results

3.1 Use of English Parts of Speech

From the students' writing corpus, we can find that out of a total of 9521 English characters, a total of 706 English words appear (see Table 1). The theme vocabulary includes time (244) such as weekend (131), weekends (74), Saturday (22), Sunday (17); sites (182) such as place (109), park (67), theatre (6); activities (191) such books, movie, basketball, TV, piano, music, housework, sports, computer, games, football, soccer, chess,

guitar, ping-pong and companions such as friends, parents and people. The use of high-frequency words includes nouns, verbs, adjectives, prepositions, articles, pronouns, and adverbs that junior high school students need to master. The data are as follows: the, I, to, and my, you, is, it, in, a, on, can, best, weekly, place, commonly, go and there (see Table 1). From the extraction of these keywords, it is further verified that the theme activity of this composition is a daily activity. The function words that appear also correspond to the time prepositions at, on, and place prepositions in daily activities. Personal nouns and pronouns include Li Ping and Lucy, as well as personal pronouns I, my, you, which are used to describe themselves and others. Of course, the articles *the* and *a* are also indispensable. The adjective is best. The noun is weekend, place. The verb is go, is. The auxiliary verb is can, and the adverb is there. The word distribution is shown in the following screenshot of the corpus in Table 1(Yuanxiang[11]). From the word list the content of the written work is clear, which shows the crucial elements in student's writing.

3.2   Use of Grammar

This grammar verbs includes two aspects. On the one hand, the use of main verbs includes be (am, is, are) verbs, do verbs and modal auxiliary verb can. The usage of go, think, play, watch, enjoy, read, like, learn, visit, take is shown in the corpus. In terms of the use of tenses, the appropriate use of frequency adverbs is also particularly important when describing daily behavior habits. From the perspective of data, the frequency adverbs used include usually, always, sometimes, often, hardly, never, once, twice. It has already covered the adverbs required for this stage, and there are three frequency adverbs to express frequent actions, which is relatively comprehensive.

3.3   Use of Adjectives

Students are able to use adjectives such as good, big, new, interesting, relaxing, beautiful, and comfortable, which are required to master and use flexibly for Grade 7–9 students in the Guidance. Comparative forms include better, bigger, more compatible, and superior forms contain best, biggest, the most comfortable. For specific use and usage analysis can be seen in Table 2, which shows the teaching and learning effectiveness of the grammar focus.

3.4   Taking Comfortable as an Example

For the use of adjectives, comfortable is required by the Guidance to evaluate students' language proficiency. The word comfortable appears 25 times in the corpus, of which the frequency of using the original level is 2 times (see Table 3). It is used correctly as a predicate and an attribute in the sentence. The comparative level has been used twice, both using the multi-syllabic structure of more + adj primitive, which is the more compatible form. The highest frequency of use for the highest level is 21 times, and the most compatible form has also been accurately used. The specific application in different situations is shown in the Table 3 (Yuanxiang[11]).

Table 1. Distribution of Keywords in the Corpus

Entries	706	Total Freq	9521	All hits	706 hits	
	Type	Rank	Freq	Range	NormFreq	NormRange
1	the	1	590	1	61968	1
2	I	2	551	1	57872	1
3	to	3	289	1	30353	1
4	and	4	263	1	27623	1
5	my	5	262	1	27518	1
6	you	6	202	1	21216	1
7	is	7	194	1	20376	1
8	it	8	193	1	20270	1
9	in	9	166	1	17435	1
10	a	10	162	1	17015	1
11	on	11	158	1	16594	1
12	can	12	152	1	15964	1
13	best	13	139	1	14599	1
14	weekly	14	131	1	13758	1
15	place	15	109	1	11448	1
16	commonly	16	106	1	11133	1
17	go	17	99	1	10398	1
18	there	18	97	1	10188	1
19	Li	19	92	1	9662	1
20	Ping	20	92	1	9662	1
21	Lucy	21	91	1	9557	1

4   Discussion

4.1   Language Proficiency

From the corpus data, we can see that in terms of vocabulary knowledge, students have already mastered the core vocabulary required by the syllabus for the teaching unit [12]. In addition, we can also see that not only do we master vocabulary, but we can also apply it to writing, understanding and expressing specific meanings in specific contexts. In terms of word collocation, in addition to the fixed collocations appearing in textbooks, the corpus also reflects students' autonomous expression and application, which shows that knowledge can be constructed around the theme meaning.

Table 2. Usage of Adjectives in the Corpus

Adjective	Frequency	Connotation	Usage
best	139	place, movie, restaurant, service, environment, clothes, songs, cinema, screens, books, TV shows, sound,	+ nouns to illustrate the outstanding features of things
good	71	place, weekend, grades, time, idea, friends, luck, way, Chinese food,	+ nouns to illustrate the outstanding features of things; The mastery of fixed sentence patterns reflects students' learning transfer ability. e.g. It is a good way to relax. It is a good place to visit. It is good for your health.
most	70	Tasty, quickly, popular, beautifully delicious, creative	Key words of superlative adjective in the textbook
biggest	36	screen	Usage in the textbook
interesting	21	jokes, games, activities	+ nouns to illustrate the outstanding features of things
the most comfortable	16	seats	
better	3	grades	
big	9	screen	
More comfortable	2	than	
comfortable	2	table	
newest	2	movies	
bigger, fresher	3	than	+ than to compare
est	10	best, cleanest, cheapest, greenest, freshest, biggest, newest	Superlative adjective

4.2 Understanding Ability

In terms of understanding skills, the new English curriculum standard requires eighth graders to master the theme content of written language (Wang[13]), summarize the general idea, pay attention to the development and change of things, further extract key information, and summarize the main points.

Table 3. Usage of adjective Comfortable in the Corpus

File	Left Context	Hit	Right Context
1	It has the best screens and the most	comfortable	seats. You can enjoy watching movies there.
2	The Sun Cinema has the biggest screen and the most	comfortable	seats. You can seat comfortably.
3	And the tickets are the cheapest it has the most	comfortable	seats.
4	Because it has the biggest screens and the most	comfortable	seats.
5	It has the biggest screens and the most	comfortable	seats. You can buy tickets the most quickly there
6	It has the biggest screens and the most	comfortable	seats, it has the best service and the newest
7	It has the biggest screens and the most	comfortable	seats. it has many meaningful movies
8	It has the best service and the most	comfortable	seats. It has the best sound, too.
9	Because the theater has the most	comfortable	seats and the biggest screens.
10	in my city because it has the most	comfortable	seats and the best service.
11	The cinema has the most	comfortable	seats and the biggest screens. And it has the
12	the best cinema near here because it has the most	comfortable	seats and the biggest screens. On Sunday
13	the best cinema in my city, it has the most	comfortable	seats and the biggest screens. Many people like to
14	in my city is movie world. It has the most	comfortable	seats and the biggest screens. And you can buy
15	enjoy the weekend in the city because of the most	comfortable	seats, and it has many kinds of books.
16	It has the biggest screens and the most	comfortable	seats. You enjoy yourself there.
17	It has the biggest screens and the most	comfortable	seats, and you can buy the tickets quickly !
18	It has the biggest screen and the most	comfortable	seats. The service is also very friendly, you can
19	has the shortest waiting time, the biggest screen, the most	comfortable	seat, and the best service. I usually go shopping

Table 3. (*continued*)

File	Left Context	Hit	Right Context
20	It has the best sound, the most	comfortable	seat the most friendly service it also has the
21	Tina's Coffee is more delicious and the seats are	comfortable.	I can read a book and listening to music
22	the best sound and the seats there are the most	comfortable	it also has the shortest waiting time.
23	Because it has the biggest screens and the	comfortable	table seats. It make people feel the best when
24	The best theater is Li Min theater, it's more	comfortable	than other. The screen is the biggest too.
25	It has the best service and the seats are	comfortable.	You can study at library all day.

4.3 Expressive Ability

In terms of expressive skills, the new English curriculum standards require eighth grade students to be able to use words accurately, express themselves fluently, express their main content and viewpoints, and write about things they have experienced or are familiar with (Qiang[14]). In terms of discourse, students can fully utilize discourse knowledge to effectively acquire and convey information, express opinions and attitudes. In describing daily life, expressing one's preferences and reasons promotes students' knowledge construction and thinking development.

4.4 Language Transfer Ability

In terms of word usage, use new phrases that are not available in textbooks, arrange and combine them to express your new ideas (Smalzer[15]). In terms of grammar, I am able to use various verbs to express my daily behavior, construct new contexts and meanings, and have gained new expressions in terms of usage occasions, expression forms, basic meanings, usage rules, and pragmatic functions.

5   Conclusion

Through the data from the corpus, we can see that senior high school students are able to grasp the teaching objectives of English subject writing and expression proposed in the syllabus well, and have achieved academic quality standards, demonstrating a high level of core language literacy. In written language, we can see that students can exchange information and simply express their opinions on familiar life topics in terms of language, understanding, expression and transfer innovation skills. In addition, they can extract information from reading discourse, expand knowledge in written expression, solve

simple problems and describe results. Although errors still exist in their compositions, the use of single nouns and plural nouns, and the capitalization of proper noun, grammatical issues such as the combination of be and do verbs.

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