To Explore Learners' Oral English Fluency and the Characteristics of the Use of Chunks

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Abstract—**We analyze in detail the text of the post-test of the experimental class and discuss their development characteristics in oral fluency and use of language blocks. After receiving the new teaching mode, generally speaking, the oral fluency and the use of language blocks between groups have been improved. Specifically, learners' oral fluency has been greatly improved in their language level from the primary level to the intermediate level, but stagnated in their development from the intermediate level to the advanced level. In terms of frequency and diversity of use of language blocks, they also show similar characteristics in oral fluency, that is, their language level has been greatly improved from the primary level to the intermediate level, but it has also stagnated from the intermediate level to the advanced level.**

Index Terms—**Language block, corpus, oral fluency, new teaching model.**

I. RESEARCH BACKGROUND

Foreign researches on linguistic block and oral fluency are much earlier than those in China. Pawley and Syder(1983), Nattinger and Decarrico(1992) all point out that native English speakers can express fluently and select language materials accurately mainly because they accumulate a large amount of programmed language and master a lot of lexical sentence stem. Skehan (1996) believes that an important prerequisite for the production of discourse fluency is the automation of language knowledge extraction or the programming of language knowledge. [1] Chunk use is considered as an output strategy, which can enhance the fluency of discourse. If learners have a large number of language blocks stored in their brain, these blocks have formed a variety of output forms, which can resist the interference that may appear in any uncertain patterns in the mind, and can easily retrieve the call when using, thus greatly enhancing the fluency of speech production.

There have been many researches on chunk - based fluency in China, but they mainly focus on chunk or fluency alone. For example, studies on language blocks include Pu Jianzhong 2003, Wei Naixing 2004, Wang Lifei, Zhang Yan 2006, Xu Jiajin, Xu Zongrui 2007, Mao Chengyi 2008, Qi Yan, Ding Yanren 2011, etc. The studies on fluency mainly include Zhang Wenzhong 1999, 2000, 2001, Chen Pingwen 2008, Miao Haiyan 2006, Meng Fanchao 2009, Yuan Ping, Guo Fenrong 2010, Zhai Yan 2011, etc. Combined with oral fluency of lexical chunks to study is not a lot of (Miao Haiyan 2006, the original ping, guo powder 2010, etc.), and the

corpus, the actual applied in teaching and oral English fluency and language chunks and less with the combination of research, the current domestic Wei Nai-xing, Wang Li-fei and other main characteristics of corpus was used to study the use of lexical chunks, Qu Dianning, Deng Jun (2010), the corpus of the acquisition of phrase structure of lexical chunks and the influence of the output. Therefore, we propose to explore the characteristics of different scholars' oral fluency and block usage after implementing the corpus-based block teaching model.

II. RESEARCH QUESTIONS

This study intends to answer the following questions:

1. What are the development characteristics of learners' oral fluency at different levels after applying the corpus-based oral block teaching model?

2. What are the features of language blocks used by learners at different levels after applying the new corpus-based language block teaching model?

III. RESEARCH DESIGN

A. Definition of Oral Fluency and Chunk

Zhang Wenzhong (1999) believed that oral fluency is "the ability to express thoughts fluently and coherently with an acceptable second language variant, and the fluency, coherence and acceptability of the language should be perceived by the listener". [2] Wray (2002) believes that a language block is a "prefabricated series of coherent or incoherent words or other meaning units, which are stored in memory as a whole and can be extracted directly without grammatical generation and analysis". [3]

B. Research Subjects

The subjects of this study are 30 students from the telecommunications excellence class of Experimental College of Beijing University of Technology. Specifically, it is the post-test of the experimental class organized by teachers after the one-semester corpus-based spoken language teaching mode. Experimental classes, a total of 34 students, but we only collect experimental classes in a pretest 30 effective sound files, thus determine after the 30 students to participate in, and according to the final exam last term (for the final exam last semester, has nothing to do with the textbook content, mainly English level test, the score can objectively reflect the students' English level), and the score to determine the low level group, the levels of group and high level group of every 10 students.

C. Research Tools

Wordsmith and Cool Edit Pro, we mainly use Wordsmith's wordlist to extract all TXT text blocks. Use Cool Edit Pro to identify silent pauses of 0.3 seconds or more.

D. Research Steps

1) Corpus-based oral English teaching mode design

The author cited the corpus based language block acquisition model of DPP (Discovery, Presentation, Production) proposed by Qu Anning and Deng Jun (2010), and further proposed DPPR patterns, namely Discovery, Presentation, Production and Review. Discovery means pre-class discovery independent learning. Autonomous learning, learner need to log on to the website, http://www.americancorpus.org, to select the typical examples from the corpus, summarize the target vocabulary related phrases. Presentation is a class presentation. To show the results of discovery independent learning in groups. Teachers correct wrong generalization and induction (Qu Dianning, Deng Jun, 2010). [4] Teachers guide students to classify language blocks, such as communicative and social speech, discourse mark, habitual response, discourse beginning, fixed/semi-fixed phrases, etc. Production refers to classroom application. Students discuss topics in groups and try to use various language blocks in communication to organize discourse and express ideas. Finally, teachers mainly comment on the discussion of students from the two levels of discourse and vocabulary application to provide timely feedback for their oral English learning. Review means review after class. In order to further consolidate the teaching effect, teachers assign homework after class. For example, students are required to discuss 2-3 topics related to classroom teaching content, so that they can fully practice relevant word blocks in communication.

2) Corpus collection

After one semester of implementing the corpus-based spoken language block teaching mode in the experimental class, a post-test was conducted in the experimental class with the title of "Job Hopping". Students were given 3 minutes to prepare for recording and were required to record for 2 minutes in the language lab. Save it as a sound file. After that, according to the length of the samples, we selected acoustic files with a length of 2 minutes or more, and collected a total of 30 valid samples from the experimental class, and then asked the teacher to transfer the acoustic files to the.txt file and save them.

3) Data analysis

For the collected data, we first used Cool Edit Pro to identify silent pauses of 0.3 seconds or more, which has also been adopted by many scholars (Raupach 1980, Zhang Wenzhong 2000, etc.). Sort out the number and duration of pauses for each text. In the experimental class, high and low scores were determined according to the final scores of the last semester, and the development characteristics of oral fluency of students at different levels after receiving the new teaching model were further discussed. Finally we use Wordsmith's wordlist to extract blocks of all the.txt text transliterated. Then the extracted chunks are manually screened and removed. Count the number of blocks, the number of words occupied, and calculate the frequency, diversity and average length of blocks.

4) Data calculation

Rate of speech (SR): the ratio of the total number of syllables in a speech sample to the total amount of time (including pauses) required to produce the sample.

Rate of pronunciation (AR): the ratio of the total number of syllables in a speech sample to the total amount of time it takes to pronounce those syllables (excluding pauses).

Sounding time ratio (PTR): the ratio of the total amount of time used for pronunciation (excluding pauses) to the total amount of time used to produce the speech sample.

Average length of speech flow (MLR) : the average length of all speech flows between two pauses of 1 second or more, expressed as the ratio of the total number of syllables in the speech sample to the total number of pauses of 1 second or more (all but the beginning and end).

Average pause length (ALP): the ratio of the total amount of time taken to achieve or exceed 1 second of pauses to the number of pauses (before and after).

Ratio of error-free T units to total T units (REFT): ratio of error-free T units to total T units.

Clause in average T units (SCT): the number of clauses in average T units.

Average length of C unit (after elimination) (MLPC): expressed as the ratio between the total number of C unit words after elimination and the total number of C unit words. The objects excluded are the elements that do not contribute to the meaning of speech, including repetition, paraphrasing, dragging, "um" and other elements.

The ratio of the number of syllables removed to the total number of syllables (RPL): the ratio of the number of syllables removed to the total number of syllables in a speech sample that do not contribute to speech comprehension.

Usage frequency: the total number of words in a word block divided by the total number of words.

Diversity of language blocks: the number of repeated language blocks is counted, the number of repeated language blocks is deducted from the total number of language blocks and then divided by the total number of language blocks (partially quoted from Zhang Wenzhong 2001, MAO Chengyi 2008) [5].

IV. RESEARCH RESULTS AND DISCUSSION

A. Measurement of Fluency Index among Different Groups in the Experimental Class

In the 30 effective acoustic files collected from the pre-test, the 30 students were determined to participate in the post-test, and according to the level examination at the end of the last semester, 10 students from the low level group, the middle level group and the high level group were determined according to their scores.

TABLE I: MEAN VALUES AND DIFFERENCES OF FLOW RATE TIME VARIABLES IN THREE GROUPS OF EXPERIMENTAL CLASS

Index	Mean Values			T		
	L	I.L	H	L--I.M.	L--H	I--H

SR	110.42	138.83	131.45	6.38	5.51**	-1.92 n.s
AR	2.27	3.74	2.75	2.16*	1.04n.s	-1.78 n.s
PTR	0.76	0.84	0.95	1.67n.s	2.21*	1.98 n.s
MLR	6.75	7.56	8.31	1.98n.s	2.89*	1.86 n.s
ALP	1.57	0.81	0.80	6.74 **	5.87**	-0.32 n.s

*P<0.05, **P<0.01, n.s: no significant difference
L: low level, I.M: intermediate level, H: high level

The results showed that there were differences in the mean value of each temporal variable of oral fluency among the three groups of students with different levels. In terms of speed of speech (SR), the primary group had the lowest speed (110.42) and the intermediate group had the highest speed (138.83). The intermediate group had a 28.41% increase over the primary group, the advanced group had a 21.03% increase over the junior group, and the advanced group had a 7.38% decrease over the intermediate group. According to the test, there was a significant difference in the speed of speech between the intermediate group and the advanced group, while there was a difference between the intermediate group and the advanced group, but the difference was not significant. In terms of pronunciation speed (AR), the primary group had the lowest (2.27) and the intermediate group had the highest (3.74). Both the intermediate group and the advanced group had an increase compared with the primary group, while the advanced group had a decrease compared with the low-level group. After examination, there was a significant difference between the low-level group and the intermediate group, while there was no significant difference between the other groups. In terms of sounding time ratio (PTR), the primary group had the lowest (0.76), the advanced group had the highest (0.95), the intermediate group had an 8% increase over the primary group, the advanced group had a 19% increase over the junior group, and the advanced group had a 9% increase over the intermediate group. There was an increasing trend among the three groups, but the differences between the lower and intermediate groups and between the intermediate and advanced groups were not significant, and only the differences between the lower and advanced groups were significant. On average length of speech (MLR), there was an increasing trend among the three groups. Although there was a difference, only the difference between the lower group and the higher group was significant, while the difference between the other groups was not statistically significant or significant. In terms of average pause length (ALP), there was a decreasing trend among the three groups, and there was a significant difference between the lower group and the intermediate group and the higher group. There was no significant difference between the intermediate and advanced groups. Overall, our results also indirectly verified Miao Haiyan (2006) about the use of sentence structure framework and l2 oral fluency development research results, between the different levels of students in received after corpus-based lexical chunks of oral English teaching mode, the development of oral fluency has the following characteristics:

after accepting a new teaching mode, between groups in terms of overall oral fluency has improved, in particular, the subjects' oral fluency development in its language level from primary to secondary development have a larger increase, but in from intermediate to advanced development will stagnate. It can be seen that oral fluency development is not a continuous development process, because in the advanced learning stage, the oral fluency development of the subjects will be stagnant, that is, plateau phenomenon (Miao Haiyan, 2006) ".

B. Measurement of Language Block Usage Characteristics among Groups at Different Levels in the Experimental Class

The results showed that the pretest and posttest results of the three groups showed an increase in the use frequency of language blocks after accepting the new teaching mode, reaching 9.13%.In terms of the diversity of linguistic blocks, posttest also increased, reaching 10.37%.We specifically analyzed the usage of language blocks in the post-test of the experimental team. According to the above table, the usage frequency of language blocks in the low, middle and third grade groups shows an increasing trend, respectively (16.8%, 32.06%, 32.15%). According to the test, there is a significant difference in the usage frequency of language blocks between the low level group, the intermediate and high level group, but there is no significant difference between the middle level group and the high level group. In terms of the diversity of use of language blocks, there are significant increases in the medium and high level groups compared with the low level groups (28.89% and 26.55% respectively), and the increase of the medium level group is 2.25% compared with the high level group. There are significant differences between the low level group and the medium level group. However, there were slight differences between the middle and high level groups, which were not significant. In general, after the adoption of the new model, the use frequency and diversity of language blocks of the subjects increased, which at least indicated that the ability of the subject to use language blocks increased. To be specific, the frequency and diversity of the use of spoken language blocks of the subjects have been greatly improved in their language level from the elementary level to the intermediate level, but they have also stagnated in their development from the intermediate level to the advanced level.

TABLE II: USAGE CHARACTERISTICS OF LANGUAGE BLOCKS AFTER TEST IN THREE GROUPS OF EXPERIMENTAL CLASS

Index	Mean (%)			T		
	L	I.M	H	L—I.M	L--H	I.M--H
Usage Frequency	32.06	48.12	49.18	6.54**	6.71**	0.46n.s
Usage Diversity	58.6	88.57	83.47	5.06**	4.67**	-1.48n.s

Pretest: Total 918, Average 27, (Usage Frequency 17.54%)
Posttest: Total 1632, Average 48, (Usage Frequency 26.67%)
Pretest: Repetition 372, Types 546, Diversity 59.48%
Posttest: Repetition 492, Types 1140, Diversity 69.85%

C. Discussion of Plateau Stage among Intermediate to Advanced Development

Table I and Table II results tell us that between the different levels of students in received after corpus-based lexical chunks of oral English teaching mode, the development of oral fluency has the following characteristics: the subjects' oral fluency development in its language level from primary to secondary development have a larger increase, but when from intermediate to advanced development is stagnant, the plateau phenomenon appeared. Second language learners often go through a similar "pass" stage after acquiring certain target language knowledge at a certain age. This is known as "plateau" of language learning. American linguist Selinker (1972) defined this phenomenon as the "transitional language fossilization theory". Selinker later defined language fossilization as the tendency of some language items, grammatical rules and systematic knowledge of the interlanguage of foreign language learners to be fixed, and the increase of age and the change of learning volume have no effect on changing this state. Selinker (1972) classified the phenomenon of fossilization into temporary fossilization and permanent fossilization by nature. Permanent petrification means immutability. Temporary fossilization refers to the breakthrough of this bottleneck after certain correction, intensive training and gradually increasing target language. [6] Therefore, learners, especially low-level learners, can greatly improve their language proficiency after certain targeted training, which has been verified in this study. It shows that learners' oral fluency improves greatly when their language level changes from the primary level to the intermediate level. However, when intermediate learners develop to a higher level, some language items, grammatical rules and systematic knowledge tend to be fixed, and the change of learning volume has no effect on changing this state. This is what we call the plateau phenomenon.

Fossilization is a common phenomenon in foreign language learning. The fossilization of interlanguage indicates that second language acquisition is to a large extent a skill learning. We should master and understand the best time for learners to learn, and try our best to improve students' foreign language ability before the plateau period. In addition, if learners reach the plateau stage, we should adopt corresponding strategies to keep learners' second language proficiency at the peak, and there will be no significant regression, so as to extend the plateau period of second language learners as far as possible.

V. CONCLUSION

Between different levels of students in receiving after corpus-based lexical chunks of oral English teaching mode,

the development of oral fluency has the following characteristics: overall oral fluency between groups have improved, in particular, the subjects' oral fluency development in its language level from primary to secondary development have a larger increase, but when from intermediate to advanced development, there have stagnation (Miao Haiyan, 2006) .[7] In terms of the frequency and diversity of use of language blocks, the subjects also showed similar characteristics in their oral fluency, that is, their language level improved greatly from the primary level to the intermediate level, but stagnated from the intermediate level to the advanced level.

CONFLICT OF INTEREST

The author declares no conflict of interest.

AUTHOR CONTRIBUTIONS

This research was conducted and the work was completed by the author individually. The author had approved the final version.

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