

# Teaching Phonologically Motivated Lexical Chunks to Young EFL Learners

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## Abstract

The importance of teaching motivated lexical chunks has been recognized by second language teachers and researchers and in various fields. However, it remained obscure on how to bring about the motivation of lexical chunks to the learners. In addition to the meaning-based semantic motivation, form-based phonological motivation has been proposed as an option, despite the lack of attention and empirical studies. The present study, taking alliteration as an example, aims to investigate the effect of teaching phonologically motivated lexical chunks to young EFL learners through awareness-raising tasks. The participants are second year junior high school students who are EFL learners and several EFL teachers in the same school. The data analysis yields three major findings: Firstly, alliterative lexical chunks have a stronger mnemonic effect than those that show little or no phonological repetition for Chinese junior high school students in four aspects: immediate recognition, delayed recognition, immediate reproduction and delayed reproduction. Secondly, most Chinese junior high school students failed to spontaneously notice alliteration in lexical chunks, which clearly suggests that even relatively salient patterns may need to be pointed out to help students to notice them. Thirdly, the mnemonic effect of alliteration can be maximized with teacher's instruction to raise learners' awareness and to notice it.

## Keywords

Lexical Chunks, Alliteration, Phonological Motivation, Phonological Repetition, Noticing

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## 1. Introduction

In recent years, as the importance of lexical chunks has been recognized, the study on lexical chunks has attracted growing interest among researchers in various fields, including general linguistics, lexicography, phraseology, corpus linguistics, language teaching, first and second language acquisition (SLA), neurolinguistics and other disciplines [29].

In the field of SLA, various proposals have been put forward for accelerating learners' acquisition of lexical chunks. Lewis, for instance, has stressed the importance of raising learners' awareness of lexical chunks being a category of second language (L2) vocabulary, and the goal being that learners should develop the ability to identify and learn lexical chunks

on their own [23]. There are also other researchers who have focused on L2 lexicography, for instance on the design of learner's dictionaries to improve their effectiveness as helpful aids in collocation learning. [17] The application of concordances in chunks learning has also attracted attention. [32] Moreover, it has been recognized that there are certain benefits of raising learners' awareness of L2-L1 contrasts in lexical chunks learning. [21] Among all such proposals, the evidence-based ones which address the fundamental matter of how to help learners to remember the lexical chunks they encounter are a small minority.

In Cognitive Linguistics (CL), lexis-grammar dichotomy and blind memorization resulting from arbitrariness of language has been rejected at the very beginning. [20] Cognitive

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linguists Langacker, Lakoff and their followers, consider it their task to find “motivation” in language [19, 20].

Motivation was considered as “a central phenomenon in cognition” and more the norm than the exception in natural language [19]. Cognitive linguists use the term “motivated” to refer to the fact that something in language are neither arbitrary nor fully predictable and that sometimes there are some reasons we use the language the way we do.

Lakoff considered that “It is easier to learn something that is motivated than something that is arbitrary”. This is contrastingly different from the viewpoint of many linguists consider language, collocations typically, as mostly arbitrary [19, 2, 31, 24, 25].

“Motivation” was defined as “A linguistic unit (target) is motivated if some of its properties are shaped by a linguistic source (form and/or content) and language-independent factors”. [27] In this definition, they illustrate motivation from two angles: linguistic source and language-independent factors. By analyzing linguistic source, they proposed five motivated semiotic relations between form and content: 1)arbitrary semiotic relation; 2)content motivating form; 3)form motivating content; 4) content 1 motivating content 2; 5)form 1 motivating form 2. The Language-independent motivational factors they proposed include ecological motivation, genetic motivation, experimental motivation, perceptual motivation, cognitive motivation and communicative motivation.

Phonological motivation is a kind of motivation in the composition of lexical chunks which is largely unnoticed but has wide coverage. It involves recognition of catchy sound patterns (e.g. alliteration, consonance). And alliteration is the repetition of the initial consonant in word strings (e.g., stand still; fast food).

Exploring the motivation of lexical chunks is likely to lead to greater depth of mental processing which, according to Craik and Lockhart [13], correlates strongly with deeper learning and longer retention. One type of deep processing is called “dual coding”, [26, 17] where verbal information and a related mental picture are stored together in memory, so that the mental picture can offer an extra pathway to recollect the verbal information.

The majority of Cognitive Linguistics investigations are focused on the semantic motivation involving explanations of meaning-meaning relations. Many researches have shown its positive effects on the learning of certain fixed expressions, such as idioms and figurative phrasal verbs [3, 18]. While semantic motivation can provide retrospective explanations regarding the meaning of lexical chunks, it does not explain their form or lexical makeup. Besides, it can only apply to

figurative lexical chunks; yet non-figurative lexical chunks abound in phraseology. Moreover, correlation analyses indicate that it may not equally benefit all learners because not all learners tend to make use of mental pictures. [5] Other researchers also appreciate another pathway for form-oriented, or structural elaboration involving mental processing regarding the form of a lexical item, [1] to explore the lexical makeup of chunks and thus foster chunk learning. Phonological motivation which involves recognition of catchy sound patterns (e.g. alliteration, consonance) can serve as pathways to help recollection as well. [28].

A large amount of statistical evidence and experimental researches prove that English lexical chunks repertoire contains a great proportion of phonological motivated chunks. [7, 15] Many lexical chunks have become standardized because of the appeal of the mnemonic effect of phonological repetition. In other words, phonological repetition, also called phonemic repetition, motivated the standardization of lexical chunks, moreover, its mnemonic effect in lexical chunks teaching has been proved by evidence-based researches. [4, 6, 10] This kind of motivation can easily be used by teachers and materials writers to help trigger mnemonically effective form-focused elaboration.

Alliteration as a type of phonological repetition is easy to recognize and also it is comparatively common. [7] Its mnemonic effect was confirmed by some empirical studies but the participants of those studies are mainly upper-intermediate/advanced students and adults. Boers and Lindstromberg, [4] conducted three experiments with upper-intermediate/advanced students as subject of study: the first two on-line experiments did not explicitly draw participants’ attention to the feature of alliteration shared by some of the idioms in the learning procedure, while the third pen-and-paper experiment required learners to pay special attention to both the sound patterns and the information of the sources of the idioms, the results suggest that both alliteration and etymological elaboration had positive effect on idiom retention. In order to further evaluate the mnemonic effect of alliteration, Boers and Lindstromberg [6] set up a sorting task experiment. A small group of college students (aged 20-21) were asked to sort 26 phrases into the alliterative and non-alliterative, and when the sorting task was done, the students were asked to write down the phrases that they could remember without being aware of the test beforehand. It turns out that the alliterative phrases are more likely to be recollected than un-patterned ones. Two weeks later, the students were given an unannounced delayed test in a different form, their recollection of the alliterative phrases again was significantly better.

Boers, Lindstromberg, and Eyckmans [9] set up a dictation experiment in which the adult participants were not taught

about alliteration. The English phrases were read out twice by the teacher and asked the students to repeat once and then write it down. After a short interval, the students were asked to write the phrases they could remember. In this experiment, the students recalled more alliterative phrases than non-alliterative matched phrases, however this experiment lacked delayed post-test, and so it cannot be said whether the observed mnemonic advantage for alliteration was durable.

However, there is variation among learners in their ability to recognize phonological repetition patterns. [8] Some scholars suggest raising learners' awareness in this respect and point out the pedagogical benefits of exploring the phonological motivation of lexical chunks by drawing learners' attention to the phonological repetition pattern. However, there are few studies on what are the possible methods of raising awareness and their effects. Moreover, it remains a question whether EFL beginner may get benefits from the training of phonological awareness.

In the present study, these issues are addressed. The teaching experiment is carried out to investigate the mnemonic potential of alliteration that could be exploited to facilitate chunk-learning for junior high school students and the importance of teacher intervention to raise learner's awareness of alliteration, furthermore to try to find plausible methods which can be used in English Lexical Chunks Teaching in light of phonological motivation.

## 2. This Study

### 2.1. Aim and Research Questions

The present study taking alliteration as an example aims: 1) to investigate whether and in what aspects alliterative lexical chunks manifest a stronger mnemonic effect than those that show little or no phonological repetition for Chinese junior high school EFL learners; 2) to explore whether these school learners can spontaneously notice or recognize alliteration in everyday lexical chunks learning without explicit guidance, thus, to discover in what aspects teacher intervention to raise students' awareness of alliteration can amplify this mnemonic effect.

Research Questions:

- (1) In what aspects is alliteration manifested in affecting junior high school students' memory of English lexical chunks?
- (2) In what aspects is teachers' intervention to notice alliteration manifested in affecting junior high school students' memory of English lexical chunks?

An awareness-raising experiment, a sorting task and an interview were designed to answer the three research questions. The sorting task was carried out before the

awareness-raising experiment without grouping the participants, while in the awareness-raising experiment the participants were grouped into two classes: a control class and an experiment class. These two experiments were independent to each other.

### 2.2. Participants

Participants were 76 second year junior high school students in Hangzhou (40 boys and 36 girls) who came from two alleged parallel classes by the school authority. There are 38 students in each class, sharing the same English teachers and same textbooks since the beginning of their junior high school study. Before the experiments, the scores of mid-term examination designed by authority were analyzed by employing Independent sample T-test using SPSS 16.0. The results ( $t=0.221$ ,  $p=0.826 > 0.05$ ) indicate that there is no significant difference between the English proficiency of the two classes. Thus, the control class and experimental class can be considered to be at the same English proficiency level before the experiments.

### 2.3. Procedures

The awareness-raising experiment and the sorting task were conducted in two classes of grade eight in junior high school. Before the awareness-raising experiment started, the participants performed the sorting task. Then they received two different ways of chunk teaching for four weeks. At the end of the awareness-raising experiment they were required to finish the immediate tests and the delayed tests two weeks later.

#### 2.3.1. Sorting Task

In the sorting task, each participant was given an envelope containing 18 shuffled slips. The author had chosen the use of envelopes to ensure the order in which the slips would be presented to the participants entirely up to chance. There were three categories of chunks representing three conditions--alliteration, assonance, and no pattern of phonological repetition.

The participants were told that among the 18 chunks, some had a special sound pattern, while others did not, and that there were two different kinds among those with a special sound pattern. The participants were asked to identify those which have sound pattern and group them into two categories and to make three sets of slips of paper by using the paper clips. The instruction was given in Chinese to ensure precise comprehension and avoid misunderstanding. The time limit of this sorting task was five minutes.

#### 2.3.2. Awareness-Raising Experiment

In the awareness-raising experiment, one class was control

class and the other was experimental class, they received two different ways of chunk teaching for four weeks and the procedures are as follows:

In the first lesson, the researcher explained the phenomenon of phonetic repetition of lexical chunks especially alliteration to experiment class and show examples to raise their awareness of alliteration, while control class skipped this step. Chunks were shown to students with Chinese meaning and example sentence with translation on PPT. In order to increase the reliability of the experiment and to avoid primacy effect and recency effect, the two fillers were shown at the beginning and ending of the PPT. Participants were asked to read aloud each chunks three times for two rounds: in the first round of reading, their attention was draw to the meaning and example sentence, and in the second round, attention was paid to pronunciation. Each chunk was shown to students for around 10 seconds in total. Only on experimental class's PPT the initials of alliterative lexical chunks were highlighted in bold. In the fourth lesson, each of the 42 chunks was shown to students 5 seconds each. Finally, two immediate tests were arranged. Two weeks later, without informing the participants beforehand, two post tests were arranged.

All tests were scored by the author herself strictly according to the rating criteria drawn from Barcroft's [33] Lexical Production Scoring Protocol-Written. We made some adjustment for the convenience of scoring. In the recognition tests, each right tick of the 36 target chunks was counted as one point, fillers did not count. We also counted the total scores of every right ticked alliterative chunks out of total scores on each test paper. In the reproduction test, the scoring was made according to the following criteria: 1) only the 36 target chunks count, 6 fillers does not count; 2) if both of the words composed of the target chunks are written correctly, 2 points are awarded; 3) if only one of the words composed of the target chunks is written correctly, 1 point are awarded; 4) if the two words composed of the target chunks are correctly written in form but conversely in position, 1 point are awarded; The author also counted the total scores of every right ticked alliterative chunks out of total scores on each test paper. This is based on Barcroft's [33] Lexical Production Scoring Protocol-Written and the author made adjustment for the convenience of scoring.

## 2.4. Instruments

### 2.4.1. List of Chunks for Sorting Task

In the sorting task, there were 18 shuffled slips, and each slip bore one chunk of two monosyllabic words. Some of the chunks were taken from their textbook after a thorough discussion with their English teacher, the other were taken from Linderstromberg and Boer's study in 2008. All the words composing the chunks are those which participants already

learned or met from their previous study, according to their English teacher. Few of the 18 chunks overlapped with the chunks used in the awareness-raising experiment. There were three categories of chunks representing three conditions--alliteration, assonance, and no pattern of phonological repetition. Three of the six chunks for each category were Noun+ Noun in structure, and the other three are Adjective+Noun (except *well done*). The target chunks are listed below:

1. Alliteration: *Ring road, sea salt, lady luck, last laugh, tall tree, fast food.*
2. Assonance: *Wish list, home phone, life time, cheap seat, deep sleep, nice try.*
3. No repetition: *Bath soap, hair loss, phone call, right hand, well done, long way.*

### 2.4.2. List of Chunks for Raising Awareness of Sound-pattern

In the awareness-raising experiment, there were 42 chunks consisting of 36 target chunks and 6 fillers. Half of the 36 target chunks exhibit classic front-front alliteration (e.g. *day dream, pen pal, sound sleep*) and another half show no salient sound repetition pattern (e.g., *make sure, look after, take place*). These chunks were divided into three lists of 12 target chunks for classroom instruction. Each list was covered in one class period. Among the 12 target chunks, half were alliterative and the other half showing no salient sound repetition pattern.

The list of target chunks was compiled according to the following criteria:

- (1) All the chunks are taken from their textbook after a thorough discussion with their English teacher. Half of the target chunks were new to the learners, while the rest were not. However, the words composing the chunks are those which participants already learned or met from their previous study, according to their English teacher. By doing this, it is hoped that the participants could focus more on the phonological features rather than on the form of new component words of the chunks. However, since the levels of the participants vary, a certain part of the participants would find the words unfamiliar.
- (2) Most of the chunks were composed of two monosyllabic words to suit students' level of English.
- (3) Obvious thematic sets (e.g. *sunset, sunrise*) should be avoided in one group lest chunks in these sets would cue each other.

### 2.4.3. Recognition Test

The recognition tests contains 84 lexical chunks (42 lexical

chunks appeared in the awareness-raising experiment and 42 did not) were employed with half exhibiting classic front-front alliteration and another half showing no salient sound repetition pattern. The lexical chunks were arranged in random order. The participants were required to tick the lexical chunk they remembered from the previous awareness-raising experiment within 5 minutes. The immediate recognition test and the delayed recognition test are same test types but with the order of each test item adjusted.

#### 2.4.4. Reproduction Test

The reproduction test contains the Chinese equivalents of 42 lexical chunks, which were arranged in random order. Participants were given Chinese equivalents as the prompt to write the corresponding English lexical chunks within 15 minutes. The immediate reproduction test and the delayed reproduction test are same test types but with the order of each test item adjusted.

## 3. Results and Discussion

### 3.1. The Mnemonic Effect of Alliterative Phonological Repetition

In order to investigate in what aspects alliterative lexical chunks manifested a stronger mnemonic effect than those that show little or no phonological repetition for Chinese junior high school EFL learners, we analyzed the data collected from the awareness-raising experiment, but for the validity of the analysis of the first research question, only the data of the tests collected from the control class was analyzed, because the participants in the control class received no special treatment during the experiment while the participants in the experimental group received special instruction to notice alliteration.

The collected data were run on the Paired-Samples T-Test procedure of SPSS 16.0. The results of the tests are presented in Table 1.

**Table 1.** Effects of Alliteration and Non-alliterative on Immediate and Delayed tests by Control class.

Test	Item	Mean	SD	Sig
Immediate Recognition Test	Alliterative chunks	14.52	3.054	.000
	Non-alliterative chunks	12.6129	2.95158	
Immediate Reproduction Test	Alliterative chunks	22.5806	9.38358	.003
	Non-alliterative chunks	20.2903	8.51349	
Delayed Recognition Test	Alliterative chunks	13.5806	4.03133	.000
	Non-alliterative chunks	11.0968	3.85015	
Delayed Reproduction test	Alliterative chunks	16.2903	6.66930	.002
	Non-alliterative chunks	13.8357	6.25618	

Table 1 showed that more alliterative chunks were recognized and reproduced than Non-alliterative chunks in both immediate and delayed tests. In addition, the Paired-Samples T-Test showed that there were statistical significant difference not only between the recognition of alliterative chunks and phonologically non-repetitive chunks in both immediate and delayed tests ( $p=0<0.05$ )( $p=0<0.05$ ), but also between the reproduction of alliterative chunks and phonologically non-repetitive chunks in both immediate and delayed tests ( $p=0.003<0.05$ ) ( $p=0.002<0.05$ ). In other words, alliterative lexical chunks have a stronger mnemonic effect than those that show little or no phonological repetition on Chinese junior high school students' memory of lexical chunks in four aspects: immediate recognition, delayed recognition, immediate reproduction and delayed reproduction.

This finding is consistent with previous studies. Boers and Lindstromberg [4] claim that alliteration is cognitively salient and alliterative lexical chunks may be easier to remember. This can be explained by its catchiness, or its distinctive features. According to Distinctiveness Hypothesis, it will facilitate memory if the information is distinctive or salient enough. [14] Lindstromberg and Boers [22] also suggest that

the uncommon characteristics can be utilized in remembering English lexical chunks. Cook [11] also states that patterns of sound repetition is noticeable and memorable. Furthermore, this result also confirms Capacity Model of Attention proposed by Kahneman [16], according to which the attentional resources are limited and only a certain amount of cognitive capacity is left to cope with various tasks. How learners allocate this limited attentional resources to cope with various learning tasks directly affects the mnemonic effect in learning procedure. Different tasks may have different demand of the amount of attentional resources. Learners should allocate these resources accordingly. In the reproduction test, participants were required to write down the English lexical chunks according to their Chinese translation within limited time. Among the 42 chunks, alliterative lexical chunks may take up more attentional resources, while phonologically non-repetitive chunks were allocated relatively little attention.

To sum up, though participants' attention was not explicitly directed at sound patterns, since the control class were not received any instruction to notice alliteration in the whole procedure of the experiment, alliterative lexical chunks were

more likely to be remembered than phonologically non-repetitive. Then the next question is: if the mnemonic effect of alliteration is already fairly marked without explicit instruction to notice it, whether the mnemonic effect of alliteration can be maximized with teacher’s instruction to raise learners’ awareness and to notice alliteration.

In order to investigate whether Chinese junior high school students can spontaneously notice or recognize alliteration in everyday lexical chunks without explicit guidance, furthermore, to find out in what aspects is teachers’ intervention to raise students’ awareness of alliteration manifested in affecting junior high school students’ memory of English lexical chunks, the researcher firstly analyzed the results of the sorting task and then analyzed the scores of alliterative lexical chunks in the awareness-raising experiment between the experimental class and control class.

### 3.2. The Results of the Sorting Task

According to the researcher’s hand counting result of the sorting task (samples of one student’s sorting result, only 2 of the 36 participants in control class sorted the 18 slips according to expectations, that is, by making sets of alliteration, assonance, and no pattern of phonological repetition correctly.

Of the other 34 participants, 11 tried to identify different sound patterns, 7 of these 11 participants discerned the category of alliterative lexical chunks, with 4 confounded 1 pair of assonant and phonologically non-repetitive lexical chunks, others confounded more. 3 of these 11 participants identified 5 out of 6 alliterative lexical chunks and the other one identified 5 out of 6 assonant lexical chunks. They showed their attempt to identify the special sound patterns.

The rest 23 participants seemed to show no evidence of sorting the lexical chunks according to their sound patterns, despite the focus of the explicit task instruction was on phonology. Some of them tried to sort the slips by certain initials(e.g. life time, lady luck, last laugh, long way). Some tried to sort the lexical chunks by themes, for example, put lexical chunks of daily necessities together(sea salt, home phone, bath soap). Some created the scenario of trip or sightseeing(ring road, tall tree, long way, fast food). Others showed no sign of patterns at all to follow in their sorting of the 18 slips of lexical chunks and just created three sets of slips by random order. They had not noticed that 6 of them alliterated nor another 6 assonant and other 6 show no phonological repetition.

In sum, most participants failed to automatically notice alliteration. The analysis of some participants’ semantic groupings was confirmed by the participants in a subsequent conversation to ask them about how they had gone about the task. The results clearly suggest that even relatively salient patterns may need to be pointed out if students are to notice them. It may also be worth noting that in the sorting task, participants were instructed to focus on sound patterns. It may be logically to assume that in real learning situations, it is highly possible that learners will focus first and foremost on meaning, thus further reducing their inclination of spontaneously noticing alliteration.

### 3.3. The Effect of Raising Students’ Awareness of Alliteration

The data were submitted to Independent-Samples T-Test by running SPSS 16.0. The results of the tests are presented in Table 2.

**Table 2.** Recognition and Reproduction of Alliterative Chunks by Control Class and Experimental Class in Immediate and Delayed test.

Test	Class	N	Mean	SD	Sig
Immediate Recognition Test	Control Class	31	14.5161	3.05364	.028
	Experimental Class	36	16.0278	2.46676	
Immediate Reproduction Test	Control Class	31	20.6857	10.32351	.030
	Experimental Class	36	26.3333	11.11241	
Delayed Recognition Test	Control Class	31	13.0857	4.08276	.027
	Experimental Class	36	15.0000	2.90812	
Delayed Reproduction test	Control Class	31	14.3714	7.70059	.043
	Experimental NClass	36	18.6389	9.64262	

Table 2 shows that more alliterative chunks are recognized and reproduced by the experimental class than those by the control class in both immediate and delayed tests. In addition, the Independent-Samples T-Test shows that there is statistical significant difference not only between the recognition of alliterative chunks and phonologically non-repetitive chunks in both immediate and delayed tests ( $p=.03<0.05$ ) ( $p=.027<0.05$ ), but also between the reproduction of alliterative chunks and phonologically non-repetitive chunks

in both immediate and delayed tests ( $p=.03<0.05$ ) ( $p=.043<0.05$ ). In other words, the experimental class outperformed the control class in the recognition and reproduction of alliterative lexical chunks in both the two immediate tests and the two delayed tests.

In sum, as indicated by the results of the sorting task and the analysis of the scores of alliterative lexical chunks in the awareness-raising experiment between the experimental class

and control class: most participants failed to automatically notice alliteration and clearly suggest that even relatively salient patterns may need to be pointed out if students are to notice them. With teacher's instruction to raise learners' awareness of alliteration and to notice it, the mnemonic effect of alliteration on junior high school students' memory of English lexical chunks can be maximized in four aspects: immediate recognition, delayed recognition, immediate reproduction and delayed reproduction. These results are consistent with the research of Boers, Lindstromberg and Eyckmans [9].

When the teachers and students talked about plausible methods which can be used in English Lexical Chunks teaching for junior high school students in light of phonological motivation, they mentioned the following methods: 1) to cover some alliteration materials in class such as the title of some news, idioms, twisters, slogans when some relevant content appears in class; 2) it can be carried out in a subtle way in the process of vocabulary teaching after solid phonetic teaching; 3) teachers may use some fun games involving pronunciation and words or pictures; 4) clear explanation. In a word, on how to teach English lexical chunks in light of phonological motivation in junior high school, they did not reach an agreement and still need more researches for the purpose of facilitating actual teaching. The consensus was that exploiting the phonological motivation of lexical chunks should be addition to teachers' chunk instruction, not as substitution of practice.

## 4. Conclusion

### 4.1. Major Findings

The major findings of the present study are presented as follows:

Firstly, more alliterative chunks were recognized and reproduced than phonologically non-repetitive chunks in both the immediate tests and the delayed tests, suggesting that alliterative lexical chunks have a stronger mnemonic effect than those that show little or no phonological repetition for Chinese junior high school students in four aspects: immediate recognition, delayed recognition, immediate reproduction and delayed reproduction.

Secondly, most Chinese junior high school students failed to spontaneously notice alliteration in lexical chunks, which clearly suggests that even relatively salient patterns may need to be pointed out if students are to notice them.

Thirdly, the experimental class which was instructed to notice alliteration outperformed the control class in the recognition and reproduction of alliterative lexical chunks in both the

immediate tests and the delayed tests, which means the mnemonic effect of alliteration can be maximized with teacher's instruction to raise learners' awareness and to notice it.

Fourthly, the teachers' and students' attitudes towards alliteration-noticing intervention in class are positive. A few possible methods of teaching English lexical chunks in light of phonological motivation in junior high school have been put forward but the proper methods to apply the said motivation in long-term practical classroom teaching still needs further discussion and researches.

### 4.2. Pedagogical Implications

Several implications drawn from the present study are presented as follows:

Firstly, the meaning and form of lexical chunks are considered to be motivated in one way or another. Exploring the motivation of lexical chunks is likely to lead to greater depth of mental processing, which, according to Craik and Lockhart [13], correlates strongly with deeper learning and longer retention. Phonological motivation which involves mental processing regarding the form of a lexical item [1] and recognition of catchy sound patterns (e.g. alliteration, consonance) can serve as pathways to help recollection as well. [28] Therefore material writers and teachers can explore and point out this motivation to help learners to enhance retention of lexical chunks.

Secondly, lexical chunks that show phonological repetition has a stronger mnemonic effect. In the present study, the author takes alliteration as an example and proves its the mnemonic effect. However, not all Chinese L2 learners cannot spontaneously notice or recognize alliteration in everyday lexical chunks, noticing alliteration can amplify its mnemonic effect, therefore, it is worthwhile for English teachers to alert learners to the alliteration in the lexical chunks they encounter, furthermore, it is necessary for teachers to explore plausible methods which can be used in English Lexical Chunks teaching for junior high school students in light of phonological motivation.

Thirdly, learners should intentionally invest time to notice the phonological motivation of lexical chunks and actively use catchy sound patterns (e.g. alliteration, consonance) in their memory of lexical chunks.

### 4.3. Limitations

This study investigates the mnemonic effect of alliteration and her findings are positive. Although the data and findings obtained from the research are to some extent useful for future research, there are still some limitations.

Firstly, the number of participants is not big enough. Only 76 were involved in experiment and they are all from the same school. It cannot exclude subjective factors such as social background and teaching conditions. Moreover, for the necessity of further study, the author arrange an interview at the the interview at the later state of paper writing. As a result of the haste, not enough interviewers were available, only 2 teachers and 2 students were involved in the interview. It would be more plausible with more interviewers participated and more information collected.

Secondly, as to the choice of the target lexical chunks, half the chunks are taken from the part of the textbooks they have already met but not recently, which may be comparatively easy for some students to remember and produce.

Thirdly, the present study only investigate the mnemonic effect of alliteration, there are other types of phonological repetition in need of experimental research as well.

Fourthly, as to the test design, the author found the reproduction test was a little difficult for students because the English level of a certain number of students is relatively low.

#### 4.4. Suggestions for Future Research

The researches and studies on phonological motivation of lexical chunks are relatively rare and have not gotten its due attention. Future studies might consider the following questions:

Firstly, do all types of phonological repetition have similar mnemonic potential? If they do, are there any differences in the mnemonic effects of these different types of phonological repetition? This has not yet been measured empirically.

Secondly, how many significantly frequent phonologically repetitive lexical chunks are there? There is no definite answer, despite Boers and Lindstromberg's [4] non-exhaustive list including over 2400 items.

Thirdly, what methods can be used in English Lexical Chunks teaching for junior high school students in light of phonological motivation?

## Appendix

**Table 3.** Examples of Recognition Test.

1	fruit tree
2	town house
3	bad taste
4	rat trap
5	west wind
6	road sign
7	take care
8	junk food

**Table 4.** Examples of Reproduction Test.

1	mai guang	sold out
2	renzao de;rengong de	man-made
3	chuban, sheng chan	publish
4	caidedui	right guessing
5	shunbian laifang	call in
6	fahuo,fanu	angry
7	hanshui	sound sleep

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