Investigating the Impact of Teaching Multi-word Expressions in a Fluency Focused Language Course

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Abstract

This small-scale study examined the retention and use of multi-word expressions (MWEs) in a language course containing elements of the fluency workshop approach. The use of targeted-MWEs and 4-word strings of language were examined by using pre-, post-, and delayed post-test audio recordings of learners ($n = 4$) producing answers to set questions. The pre- and delayed post-test assessments were separated by six months, allowing for a longitudinal analysis. Following the teaching intervention, an anticipated increase in MWE usage between pre- and post-test was observed. The delayed post-test assessment highlighted a slight reduction in MWE usage. Teaching implications for increasing usage of MWEs by learners include highlighting MWEs during speaking activities and a need for frequent review activities.

この小規模な研究では、流暢性ワークショップ・アプローチの要素を含む語学コースにおける複数単語表現（MWE）の保持と使用について調べた。学習者（n＝4）のプレテスト、ポストテスト、および遅延ポストテストの音声記録を用いて、ターゲットとした MWE と 4 単語の文字列の使用を調査した。テスト前とテスト後の評価期間は 6 ヶ月で縦断的に分析をした。学習指導後、テスト前とテスト後の MWE 使用量の増加が観察された。遅延ポストテスト後の評価では、ポストテストに比べて MWE 使用量がわずかに減少していた。学習者による MWE の使用率を高めるための指導上の示唆としては、スピーキング活動中に MWE を強調すること、および頻繁に復習活動を行う必要性が挙げられる。

Background

Multi-word expressions and fluency

Multi-word expressions (MWEs) are phrases or groups of words that commonly occur together and whose meanings may not always be obvious from their constituent parts. These expressions include a range of items, including idioms, phrasal verbs, and groups of words that are commonly viewed as single items. Nation (2013) highlights the importance of developing a repertoire of MWEs for language learners. A large part of the lexical knowledge needed by English L2 learners is comprised of MWEs. Wray (2004) notes that MWEs are stored and retrieved from memory by learners. Whole strings of words can be memorized and used at an appropriate time. Therefore, it is important for learners to develop familiarity with MWEs to achieve native-like fluency.

According to Nation (2013), MWEs can take one of several forms. First, MWEs are a group of words that commonly occur together. This co-occurrence makes the group of words a standard combination in a language. Second, some MWEs are formed by groups of words where the meaning is not obvious from the constituent parts, such as 'by and large' or 'be taken in'. This necessitates learners having to remember the phrase as a whole. Third, the concept of MWEs is broadened by considering all the combinations of a particular word or type of word and its accompanying words whether they are highly frequent, strongly associated, or not. A case in point is Sinclair's (1991) idiom principle where the choice to use a particular word determines, to some degree, what the subsequent word produced might be. Finally, MWEs also include groups of words that are intuitively seen as being formulaic sequences, that is, items stored as single choices. MWEs, therefore, suggest that vocabulary learning can be viewed as a matter of acquiring readymade 'chunks' of language (Ellis, 2003). Acquiring vocabulary as such can lead to efficient and fluent production during spoken communication.

MWEs play a pivotal role in enhancing fluency as they allow speakers to produce language in a smooth, uninterrupted manner. Therefore, the relationship between MWEs and fluency is of great interest in language research. Wood (2009) makes note of features that should be measured when conducting research into language fluency. These features of fluency are: (1) the rate of speech, measured as syllables uttered per minute, (2) the nature and number of pauses, and finally, (3) the length of runs, measured as the number of syllables uttered between pauses.

The sometimes complex and broad nature of MWEs (Nation, 2013) can create difficulties for researchers due to the reliance on native-speaker intuition in identifying and describing which words comprise common language units (Tavakoli & Uchihara, 2020). However, with advances in corpus-based research techniques, *n-grams* have received increased attention in SLA research as a means of identifying MWEs that relies less upon researcher intuition (Tavakoli & Uchihara, 2020). *N-grams* are lexical bundles (or 'chunks') that can be identified using an objective, frequency-based approach. Recurrent sequences of *n*—that is, bundles of two, three, four, or more consecutive words—can be identified in corpora of learner production, making these sequences available for analysis. Using *n-grams* as units of language analysis allows researchers to identify both 'target' and 'non-target' MWEs. Target-MWEs refer to strings of words that are specified by teachers or language researchers ahead of a teaching intervention, usually as part of a fluency workshop approach, that encourages repeated encounters with selected vocabulary items (Thomson et al., 2023). Non-target MWEs are the opposite, they are strings of words that are not highlighted by teachers or researchers. Beyond that, non-target MWEs may not even be part of the instructional materials in a certain course of language instruction. Non-target MWEs could be acquired by learners through peripheral learning, participating in an additional course of language instruction, or already be part of a learner's pre-existing lexicon. Non-target MWE data can be accessed with the use of concordance software such as AntConc (Anthony, 2022).

Fluency Workshops

One possible instructional approach to take to support learners' acquisition of MWEs, and spoken fluency more generally, is the fluency workshop. Three notable examples of a fluency workshop approach include Wood (2009), Thomson (2018), and Thomson et al. (2023). The fluency workshop run by Wood consisted of presenting and practicing language over four stages: input – automization – practice and production – free talk. Wood's workshop provided a clear progression of activities that supported the learners' acquisition of the target language with repeated and time-pressured activities (as reported in: Thomson, 2018). Wood's workshop, however, involved only one (Japanese) learner studying English in Canada. The studies' focus on a single learner, and the learning context makes the generalization of findings from this study problematic.

Thomson (2018) implemented Woods approach in an intensive Fluency Workshop with a larger group of students. Thomson's study was experimental in nature and had a total

of 23 participants. The focus of Thomson's study was 3 dialogues, each with 10 target MWEs (four words in length) with a range of frequencies. The target MWEs were read, heard, written and spoken multiple times during classroom lessons held once a week over six weeks. At the beginning and end of this six-week period, pre-tests & post-tests were conducted. These pre- and post-tests were delivered using the *Moodle* SMS. The tests were designed to measure learners' knowledge of the targeted MWEs prior to the six-week workshops and to measure any gains in knowledge amongst learners at the end of the six weeks. Spoken role-plays were performed at the end of the six weeks and were analyzed to check for use of the target MWEs. While repeated exposure to targeted MWEs were found to have led to increased knowledge and use of the MWEs amongst learners by the end of the six-week workshop, the absence of additional delayed post-testing in Thomson's study makes it impossible to determine if any longer-term acquisitional gains had been made.

Thomson et al. (2023) report on a fluency workshop similar in nature to Thomson (2018), but with two significant differences. First, during classroom activities when participants were unable to use notes, target-MWEs were displayed on the class screen. This approach was taken to give participants further opportunities to develop use of MWEs in conversation, it implicitly encouraged learners to make use of the expression in their own output during practice. The second difference was that the targeted-MWEs chosen were not explicitly required to complete the speaking tasks in the fluency workshop. Participants included the MWEs on their own volition as part of their language production.

Go on Speaking

When learners have an extensive knowledge of MWEs, they are more likely to produce language in a smooth, uninterrupted manner, with few, if any pauses (Ogawa, 2021). One textbook that incorporates a focus on MWEs to better enhance spoken fluency amongst EFL students, is *Go on Speaking* (McAuliffe, 2023). The approach taken by this textbook is to have learners study grammar and lexis related to a number of topics in turn, and when covering each topic, learners participate in a series of speaking activities that serve to reinforce and support internalizing the lexis, including a series of clearly presented MWEs. Such an approach finds support from researchers such as Kormos (2006) who claims that, while student knowledge of grammar and lexis is important, of even greater importance is the students' *automization* of access to these resources during speaking.

Certain classroom activities are claimed to promote improvements in learners' spoken fluency (for a recently proposed list, see: Tavakoli & Wright, 2020), of which a number are incorporated in the *Go on Speaking* textbook. First, the textbook incorporates activities which draw learner attention to formulaic lexical sequences which has been shown can lead to improved oral fluency (Wood, 2010; Tavakoli, 2011). Learner internalization of knowledge of such sequences - in the form of MWEs - can lay the foundations for more rapid access to these 'lexical chunks' in subsequent oral production as needed. Second, *Go on Speaking* has learners consistently repeat tasks. Consistent task repetition helps to improve fluency (Lambert, Kormos, and Minn, 2017); and through such repetition, learners may develop an ability to more quickly access MWEs. Thirdly, repeating tasks under time pressure can help to improve learner fluency. One well established activity of this type is the 4/3/2 technique (Nation, 1989). In this activity, learners repeat a speaking activity in increasingly shorter time periods. *Go on Speaking*, by incorporating repeated speaking practice activities facilitates the use of the 4/3/2 technique, promoting the automization of recall of language items, thereby helping learners improve spoken fluency.

In sum, the *Go on Speaking* textbook works towards developing students' overall speaking skills, with a particular focus on developing fluency. The textbook development of fluency is achieved through two main interventions:

1. Pre-teaching and testing of related lexis and grammar.

2. Repeating speaking tasks to reinforce recall and usage of the same lexico-grammatical items.

Aims

This study aims to measure learners' acquisition of multi-word expressions (MWEs) that they encounter and produce as participants in an oral skills course. The coursebook employed in the course was the previously described *Go on Speaking* (McAuliffe, 2023). This textbook's pedagogic approach to building learner-fluency is similar to that of the Fluency Workshops described in Thomson et.al. (2023), Thomson (2018) and Wood (2009) in that the textbook also aims to promote speaking skills by having learners discuss in detail a number of topics and purposefully includes a series of explicitly presented MWEs. Although the textbook does not have learners hold repeated discussion of the same topics as intensively

as the workshops in Thomson's and Wood's studies, the textbook does provide multiple occasions to encounter and produce the coursebook preselected MWEs through repeated speaking activities.

Previous research has tracked acquisition of targeted MWEs pre- and post-intervention over a period of six weeks. However, learners' ability to use targeted MWEs over a longer term has gone mostly unexamined. This study analyzes the use of MWEs encountered and produced in a course held once a week over a longer six-month period. Additionally, whereas previous studies only investigated acquisition of explicitly target MWEs, this study examines acquisition of both MWE's explicitly targeted by the coursebook and non-targeted MWEs. The research questions:

1. Can learners retain and use targeted-MWEs over a six-month period?

2. Can a change in the levels of non-target MWE usage be observed in learners over a six-month period?

Sampling and Methods

Participants

The participants (n-4) were from one compulsory 1st year English class in Kyushu Sangyo University (KSU) in Japan and were aged 18 or 19 years old. Two of the participants were female, and two were male. All of the students had English levels in the CEFR A2-B1 range. Participants were informed about the nature of the study in Japanese. Informed consent was obtained prior to the commencement of data collection.

Pre-test and initial teaching intervention

The students were in an EFL course of study designed to improve the learners' speaking ability. This course used the *Go on Speaking* (McAuliffe, 2023) textbook. This textbook contains 8 topic discussion units, two review, and two speaking test units. The present study made use of one of the 8 topic discussion units, namely 'University studies'. The initial pre-test, and subsequent teaching intervention making use of the textbook and course materials followed the procedure below:

1. One week prior to encountering the study's 22 MWEs during regular, planned course activities, the study's pre-test was administered. Pre-test - Participants answered four questions contained in the 'University studies' topic. Participants were instructed not to prepare their answers. They recorded themselves giving their responses—in the form of short monologues—to the four questions. Their recorded responses were uploaded to the course *Moodle* SMS. The four questions discussed in the 'University studies' topic, listed below, were:

i. What's your university schedule like?

ii. Which is your hardest day?

iii. Which class do you enjoy the most?

iv. Do you study hard?

2. During the course—as regular, weekly, out-of-class preparation for the subsequent lesson—participants encountered the study's 22 target MWEs printed in their textbook. The participants were instructed to read two sets of model answers to the four questions on the 'University studies' topic (i.e., the same questions they had answered monologically in the pre-test). The 22 MWEs were glossed in these model answers and Japanese translations were presented at the foot of the same page that the model answers appeared on.

3. As additional out of class lesson preparation activities prior to their lessons, the participants were required to complete three activities on their course *Moodle* SMS that made use of the target-MWEs. These activities were: (1) online flip-cards, where learners could self-test their knowledge of the target-MWEs, (2) online quizzes in the form of gap fill activities, in which learners were required to type whole word answers into cloze sentences, and (3) written answers, referring to the model answers in the textbook, students were required to write their own answers to the four topic questions. For this last activity, support for writing answers was given in the printed textbook with the model answers broken down into stages, and detailed grammar explanations were provided for each of these stages.

4. Participants then came to the class where the prepared for 'University studies' topic was covered. By way of review, the class started with a 10-item *Moodle*-based online quiz to gauge how well students could recall a selection of the MWEs and grammar explanations. Following this, students repeated a variety of speaking activities, both monologic and

dialogic in nature. In these speaking activities, participants would present and discuss their answers. They would also listen to the answers from several classmates on the same topic.

Further interventions and post-test schedule

In total, the four participants took part in speaking activities based on the topic of 'University studies' a total of 14 times. The schedule for these speaking activities can be found below:

Semester 1, Week 7 – one monologue, performed once

Semester 1, Week 8 – one monologue, performed once, plus discussions in groups of three, with discussion performed three times

Semester 1, Week 12 - one monologue, performed once, plus discussions in groups of three, with discussion performed three times

Semester 2, Week 8 - one monologue, performed once, plus discussions in groups of three, with discussion performed three times

Semester 2, Week 14 - one monologue, performed once

Prior to the Semester 1, Week 7 monologue, participants were instructed not to prepare their answers. This initial monologue in Semester 1, Week 7 served as the study's pre-test. The monologue conducted in Semester 1, Week 12 served as the post-test. The monologue conducted in Semester 2, Week 14 served as the delayed post-test.

In the case of the monologues, students were given 2 minutes to give their answers. In the case of the discussions, groups of three students were initially given a total of 5 minutes to say their answers. When listening to the other two group members, students were encouraged to ask follow-up questions and respond to the answers in some manner. The length of time given for the subsequent two discussions was 4 and 3 minutes respectively.

Data Analysis

Students were required to complete the recording for the pre-test before having completed any of their e-learning activities on Moodle. Prior completion of their monologic responses to questions was verified by comparing the upload date and time for the recordings with the completion date and time for the e-learning, visible in the teacher's Moodle course settings. The second and third recordings of individual participant's responses to questions

were conducted in a classroom setting. The teacher could verify visually that the students were not reading their previously written answers but were producing more spontaneous answers in response to questions printed on sheets distributed by the teacher. For both the second and third recordings, students were given one week's notice that the recordings would be conducted in the subsequent lesson.

Student audio recordings were transcribed, and the resulting transcriptions formed the basis of the analysis of the changes in usage of target and non-target MWEs. The number of multiword expressions used in the pre-test, post-test, and delayed post-test recordings was counted. Firstly, the 22 MWEs used by the participants from the printed and e-learning materials were tabbed using the built-in search function in Microsoft Word (Version 16.71). Minor changes were made to the list of MWEs that were analyzed. In the *Go on Speaking* textbook, one of the target-MWEs was considered to be too long for students to successfully remember or use ('My first class starts at 9 o'clock and my last class finishes at 7:20'). This MWE was divided into two separate MWEs: (1) My first class begins at…' and (2) 'My last class finishes at…' In addition, another MWE took the form of, 'What's your university schedule like?' It was considered highly unlikely that a student would make use of this MWE – asking themselves a rhetorical question, in a monologic passage, so it was removed from the analysis.

Partial and alternative use of target-MWEs was recognized. For example, one of the target-MWEs was, 'Tuesday is my hardest day'. If a participant said, 'Tuesday is my hard day', that use of the MWE was rated as 4 out of 5, as 4 of the 5 tokens in the MWE were used accurately. If a participant said, 'Thursday is my hardest day', that use was rated as 5 out of 5. Although the participant's use of the MWE differed from how it was presented in the course materials verbatim, the participant's response displayed accurate usage of the MWE. The length of the lexical string also affected the participant's score for accuracy of usage. Use of shorter target-MWEs, such as 'after the deadline', and 'on the whole', earned a score of three points each due to the number of items in the string of words.

The use of non-target MWEs was analyzed by counting the frequency of 4-word lexical strings (*4-grams*). This length of n-gram was selected as it closely resembled the length of the typical target-MWE in the study. Participant corpora were created using AntConc (Anthony, 2022). Transcriptions for the pre-, post-, and delayed post-test

monologues were entered into the concordance program in AntConc. The resulting set of *4-gram* data were then the subject of correlation analysis.

Analysis

The pre-tests were administered before the teaching intervention. After 3 weeks, and then again after six months, the same monologue was recorded to compare any changes in the use of target-MWEs and more generally, lexical strings. Results from Table 1 and Table 2 show a wide range of target- MWE usage, both in terms of the absolute number of MWEs used, in Table 1, either partially or wholly correct, and the accuracy of usage, in Table 2.

An analysis of the partial and complete whole of target-MWEs in student monologues, in Table 1, shows a marked difference in the rate of target-MWE usage between the pre-test M = 3, SD = 2.16 and the post-test M = 7.75, SD = 0.96. A comparison between the post-test and delayed post-test shows a small decrease in the usage of target-MWEs, with M = 6.5, SD = 1.0. The relatively high standard deviation present in the pre-test scores shows a range of levels of awareness of the target-MWEs before the teaching intervention. A repeated measures ANOVA showed a significant main effect for this usage of target-MWEs, $F = 8.31$, $p = 0.022$.

Table 1

Partial and/or Whole Usage of Target-MWEs in Student Monologues

	Pre-test MWE score	Post-test MWE score	Delayed post-test MWE score
n=4	3 (SD = 2.16)	7.75 (SD = 0.96)	6.5 (SD = 1.0)

Note. From a total of 22 MWEs.

When examining the accuracy of target-MWE usage, Table 2 also shows a marked difference between the pre-test M = 11 (SD = 8.04) and the post-test M = 28.75 (SD = 4.35). A comparison between the post-test and the delayed post-test results also shows a small

decrease in how accurately participants could use the target-MWEs, with M = 24 (SD = 4.0) in the delayed post-test. Furthermore, there was a high standard deviation present in the pre-test scores. A repeated measures ANOVA showed a significant main effect, $F = 7.62$, $p = 0.023$.

Table 2

Accuracy of Target-MWE Usage in Student Monologues

	Pre-test MWE score	Post-test MWE score	Delayed post-test MWE score
n=4	11 (SD = 8.04)	28.75 (SD = 4.35)	24 (SD = 4.0)

Note. From a total of 108 tokens in 22 MWEs.

Finally, the analysis of non-targeted MWEs, as measured by the number of different 4-word strings (*4-grams*) used by students in their recorded monologues, highlights similar relationships between the pre-, post-, and delayed post-test results as found in the non-target MWEs analyses (Table 3). The pre-test 4-g frequencies were M = 22.75 (SD = 10.99), compared with the post-test value of M = 74 (SD = 12.97), and a delayed post-test value of M = 65.5 (SD = 22.23). There is a strong positive correlation between the pre-test and the delayed post-test frequencies of 4-word string usage, $r = 0.90$. A comparison of the post-test, M = 74 (SD = 12.97), and delayed post-test, M = 65.5 (SD = 22.23), values show a very weak positive correlation, $r = 0.19$. There is a wide range of scores on the delayed post-test as indicated by the SD value of 22.23.

Table 3

4-gram Non-target MWE Usage in Student Monologues

	n	M	SD	1	2	3
1. Pre-test	4	22.75	10.99	-		
2. Post-test	4	74	12.97	0.47	-	
3. Delayed post-test	4	65.5	22.23	0.90	0.19	-

Discussion

This study set out to answer two research questions that will now be discussed in light of the results. The first research question asked whether learners retain and use targeted-MWEs over a six-month period. Broadly speaking, we can say that there was an increase in the usage of target-MWEs. There was a notable increase in the use of target-MWEs between the pre- and post-tests. Following this, there was a slight decrease in the use of target-MWEs in the delayed post-tests, compared to the post-tests. This was the case for both measures of target-MWE usage, partial/whole usage and accurate usage. After conducting pre- and post-tests, with the target-MWEs introduced in between, the learners' attention was brought to bear on the topic of, 'University studies' only once in the following 5-month period, before going on to participate in the delayed post-tests. This time frame may serve to act against retrieval and usage of the target-MWEs. More opportunities for review or recall of the target-MWEs in between the post- and delayed post-tests may aid in the retrieval from memory (Wray, 2004) when speaking.

The second research question asked if a change in the levels of non-target MWE usage can be observed in learners over a six-month period. On the whole, we can say that the participants used an increased number of non-targeted MWEs over this period. A pattern similar to the usage of target-MWEs emerges. There is a notable increase in non-target MWE usage between the pre- and post-tests, with a slight reduction observed when comparing usage rates between the post- and delayed post-tests. This reduction between post- and delayed post-test usage rates could be accounted for by the fact that participants, whilst having the relative freedom to be able to choose from their entire lexicon, are limited by the nature of the questions in the tests. In this case, questions asking about the topic of 'University studies'.

There are several possible implications for the use of fluency workshop style courses. First, taught or target-MWEs could be reviewed on a more frequent basis. By providing learners with more opportunities to recall and make use of previously taught MWEs, there is a greater chance of these items being used when speaking, helping to improve their fluency (Lambert, Kormos, and Minn, 2017). Second, during classroom activities where note taking is not permitted, for example, during 4/3/2 time-pressured fluency activities, target-MWEs could be displayed on the screen in the classroom (Thomson et al., 2023). This may help learners make use of the MWEs in their own output during practice. Third, examining what

MWEs learners make use of when producing language could inform possible future textbook revisions. If a particular targeted-MWE is consistently not chosen by learners as part of their spoken output, this item could be substituted when revising the textbook or other course materials. Conversely, if a particular MWE is used by many learners in pre-testing, the case for including it in the list of targeted-MWEs, and even test items, is weakened. Finally, in the case of KSU, it could be considered encouraging that the *Go on Speaking* textbook is part of a course of study where students recall and make use of some target-MWEs.

Limitations

The present study was not experimental in design, but a small-scale study aimed at examining changes over a six-month period. Due to the nature of the study, the sample size consisted of four participants. Even when correlation values point towards a very strong correlation, it is not possible to make firm claims about the effectiveness of any interventions in the study.

The timeframe and length of the study give rise to certain problems. To align with the course schedule, the presentation of target-MWEs occurs shortly after the pre-test. Immediately following this, learners are required to write their answers to the topic questions. This seems to draw a line between relevant and useful target-MWEs, and unnecessary target-MWEs, from a given learner's perspective. Learners' interaction with the full set of target-MWEs ends at this point, and the unnecessary MWEs fall by the wayside. Learners do not pick up and start using hitherto unutilized target-MWEs between the post- and delayed post-test.

Conclusion

This small-scale study set out to examine the recall and use of targeted-MWEs in monologue speaking activities. In addition, changes in learner usage of MWEs more generally were examined. With pre-test and post-test assessments separated by a matter of three weeks, significant gains in both categories of MWE usage could be observed. Much of the research in MWE usage by learners occurs over a period of six weeks. Some of this research shows significant gains in MWE usage by language learners. But what happens when the researcher packs up and goes away? In order to see if learners backslide or if they continue to learn, it is important to consider conducting delayed post-test assessment. This

study also conducted such delayed post-test assessment, stretching the period of learning examined beyond six weeks to six months. This provided some additional insight into the recall and use of target-MWEs, and learners' more general use of 4-item word sequences.

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