Evaluating the Use of Data-driven Learning to Teach Phrasal Verbs in a Private Language School in Japan

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Abstract

This paper assesses the use of data-driven learning to teach phrasal verbs at a private English language school in Japan. Concordance lines from the British National Corpus were utilised with the aim of allowing students to discover the meaning of a set of phrasal verbs over the period of one month. This kind of application of corpora in the language classroom has for the most part been the domain of university courses. By gathering both quantitative and qualitative data from the classes, the study aimed to ascertain the usefulness of this type of learning for teachers in smaller language schools. Overall, the results suggest that data-driven learning did assist the students in acquiring the target language, with motivation levels also showing an increase on the whole. The results imply that a corpus can be used effectively by language teachers outside of universities, but that the time-consuming nature of this endeavour may make it impractical for some instructors.

1. Introduction

Corpora have had a tangible impact in the field of language teaching. Their

influence is perhaps most visible in commercial materials where publishers are often keen to foreground the corpus credentials of their products. For example, learner dictionaries typically draw on corpus evidence, both from target language corpora (for description of the language) and learner corpora (for descriptions of errors that learners typically make) (Longman Essential Activator, 1997). Similarly, many textbooks draw, to varying degrees, on corpus data (McCarthy, McCarten & Sandiford, 2014; Handford, Lisboa, Koester & Pitt, 2011). For learners and teachers, these examples represent the indirect use of corpora – i.e. the data has been distilled into easily accessible descriptions of language use.

An alternative is the direct use of corpus data in the classroom – an approach which has come to be known as Data Driven Learning (DDL) (Johns 1986; 1988; 1991). Here students take on the role of 'researchers' in the classroom using authentic corpus data, usually in the form of concordance lines, to identify language patterns, while the teacher's role becomes that of a facilitator and guide. Materials are typically presented in paper format, with the target word or phrase centred in the concordance (key word in context – KWIC), making lexico-grammatical regularities easier to identify. Students are then provided with tasks to guide them through the process of independently identifying form-meaning relationships from multiple examples.

As such, DDL represents a "cognitive" strategy for language acquisition. Cognitive theories of SLA state that "mental operations" (i.e. working to discover meaning) are necessary for learning new words "in order to understand, categorize and store them in the mental lexicon" (Hedge, 2000, p. 117). The process of Cognitive SLA starts with exposure to the target language in context, followed by organizing the words via the patterns noticed, before finally "going beyond the data" by inferring meaning and attempting to produce the words independently (Brown, 2014, p. 126).

Proponents suggest that DDL "can significantly enrich the pedagogic environment" (Aston, 1995, p. 261). Kennedy and Miceli (2001) and Yoon and Hirvela

(2004) argue that since the process involves the students discovering meaning mostly of their own fruition, this can result in increased student confidence and motivation. Similarly, Harris and Moreno Jaen (2011) suggest that as this approach is more learner-centred, it might improve student motivation (see also Grigaliuniene, 2013), while Allan (2006) suggests DDL can lead to greater student participation and language acquisition. Moreover, research has also indicated that students appreciate being given access to authentic language (Cheng et al., 2003; Chambers, 2005; Boulton & Cobb, 2017).

Data-driven learning has been shown, on the whole, to have a positive impact on student learning, in particular vocabulary learning (Stevens 1991; Cobb 1997; Allan 2006; Koosha & Jafarpour 2006; Boulton 2011; Yilmaz 2017). Yilmaz (2017), for her part, found that in the context of a Turkish university DDL resulted in significantly more gains than studying with an online dictionary, and concludes that "DDL can have a strong effect on learners' improvement in the use of lexico-grammatical patterns" (p. 85). However, not every study has found DDL results in significant gains in test scores, with Rapti (2001) an example of this.

A drawback of DDL appears to be its time-consuming nature both for the teacher, in terms of material and classroom preparation, and for the students, in learning to utilise a method they are likely to be unfamiliar with (Kennedy & Miceli, 2001; Cheng et al., 2003; Chambers, 2005; Boulton & Cobb, 2017). The approach also places the focus overwhelmingly on individual words. As McCarthy (1990) explains "over-concentration on learning single words may hinder the development of the L2 phrasal lexicon and deny the opportunities this gives for rapid retrieval and fluent, connected speech" (p. 45). Furthermore, some students may simply dislike the approach and prefer a more traditional teacher-centred classroom or a more deductive approach (Whistle, 1999, cited in O'Keeffe & McCarthy, 2011, p. 365).

Research on DDL is a flourishing field – Boulton and Cobb (2017) cite 205

publications reporting empirical evaluation of DDL. However, as an approach to language teaching DDL remains relatively marginalized. A survey of published studies suggest that it remains almost exclusively the domain of university (writing) classes. The application of DDL in private language schools is uncommon – of the 205 cited by Boulton and Cobb (2017), only one takes place in a private language institution. Possible reasons for this might include less teacher autonomy in language schools, a lack of awareness of the approach, and practical issues, such as access to classroom technology. Furthermore, language school teachers, particularly in Japan, might also face challenges implementing an approach that requires paying customers, who may be more familiar with a teacher-centred teaching/learning environment (Lee, 2007), to adopt a more autonomous role.

To address this gap, the present study explores the applicability of DDL in a private English language school in Japan. Specifically, the study focuses on the learning of phrasal verbs. A phrasal verb is a combination of lexical verb and verbal particle (usually an adverb or preposition), the meaning of which can be (1) literal – it matches that of the individual words (e.g. *take out* the trash); (2) aspectual – it is not completely transparent but nor is it completely figurative (e.g. *use up* all the supplies); or (3) idiomatic (e.g. *chill out*) – it is difficult to decipher from its individual components (Thim, 2012). The grammatical form of phrasal verbs can also pose difficulties for learners. Phrasal verbs are either (1) transitive type A – where the verb can take an object, and its two parts can be broken up (e.g. *turn on* the radio/*turn* the radio *on*), (2) transitive type B – where the verb can take an object, but its two parts cannot be separated (e.g. *count on* a friend), (3) intransitive – where the phrasal verb cannot take an object and cannot be separated (e.g. *go back*), and (4) three-word phrasal verbs (e.g. *look forward to*), which have the same grammatical properties as intransitive phrasal verbs. Knowing whether the phrasal verb can or cannot take an object, and whether it is able to be separated or not, is another skill learners need to acquire in order

to use them effectively.

Phrasal verbs were selected as the target structure for this study as they are often avoided by language learners (Laufer & Eliasson, 1993; Gardner & Davies, 2007) and are considered one of the more difficult elements of English to teach and learn (Moon in Schmitt & McCarthy, 1997; Celce-Murcia & Larsen-Freeman, 1999; Gardner & Davies, 2007; Gonzalez in Campoy-Cubillo et al., 2010; Ryoo, 2013). Sinclair (1991) suggests that concordance lines might be particularly effective in highlighting non-transparent meanings of phrasal verbs. Only a few published studies have assessed the use of DDL to teach phrasal verbs. Azarro (2012) tested the acquisition of ten phrasal verbs for some 112 university students. Five of the verbs were taught via concordance lines, while for the other five dictionaries were used. The post-test showed significant gains in test scores for words studied by DDL, with less significant improvements for dictionary-learnt words. Phrasal verbs were also taught via DDL by Spring (2018). Once more, there were significant gains in test scores for the Japanese university students who participated, although the study focused more on how the phrasal verbs themselves should be presented than the effectiveness of the DDL treatment. Just two phrasal verbs were studied by Boulton's (2008) 113 students as part of his study on using DDL to assist with phrasal verb acquisition, and results again showed significant rises in test scores. In this study, the greatest improvements were observed in higher level learners (Boulton, 2008). All of these studies focused on university students, again highlighting the lack of DDL application outside higher education.

2. Methods

2.1 Evaluation purpose

To assess the efficacy of DDL in the context of a private language school, we employed a micro-evaluation (Ellis, 2003). This comprised a '**learning-based evaluation**' assessing the extent which DDL resulted in student learning of the

phrasal verbs. To this end, a pre-test, a treatment (i.e. DDL) and a post-test were administered to a group of students. For comparison, a pre-test, treatment and post-test using a non-DDL approach was administered to a separate group of students in the same school. We also conducted a '**response-based evaluation**', the purpose of which was to assess whether the use of DDL resulted in the expected classroom processes, and a '**student-based evaluation**' assessing how students react to DDL. Finally, we sought to evaluate the '**overall feasibility**' of using DDL is this context.

2.2 Setting and participants

The study was conducted in a private English conversation school in Nagoya, Japan. A total of 16 adult students, split equally into two groups, took part. Both the DDL group and non-DDL group comprised of seven females and one male. Students' ages ranged from 16 to 70, with most between 26 and 50 years old, while their levels, as assessed by the teacher and classes they were taking, were predominantly intermediate or advanced. This range, although not representative of all private language schools, generally reflects the diversity found at such schools in Japan. Students took part in the study voluntarily and provided informed written consent. Although they were aware that the class would focus on phrasal verbs, they were unaware of the specific teaching approach. Both classes were taught by the first author, who was at the time a CELTA qualified teacher of seven years' experience undertaking a Masters in Applied Linguistics.

2.3 Treatments

Two sets of three tasks were prepared – one set based on the principles of DDL and the other on a more traditional deductive approach (non-DDL). Each set of tasks targeted the same 22 phrasal verbs – see Table 1. Target verbs were selected based on (1) their form – six transitive verbs (Task 1), eight intransitive verbs (Task 2) and eight three-word verbs (Task 3); (2) non-transparency

Table 1: Phrasal verbs for teaching

Task 1 transitive verbs	Task 2 intransitive verbs	Task 3 three-word verbs
figure out	drop in	go out with
get over	get by	get round to
count on	back down	measure up to
turn down	nod off	look down on
rule out	grow apart	clamp down on
call off	watch out	make fun of
	catch on	put up with
	fall through	fill in for

of meaning – i.e. verbs that would likely pose a challenge for students; and (3) frequency in the British National Corpus – i.e. they are in common usage and thus worth teaching.

DDL tasks followed an inductive format, first presenting students with exemplars and asking them to reach their own metalinguistic generalisations. Concordance lines which illustrated salient aspects of meaning and form were selected from the BNC, and, on occasion, simplified. Students were asked to read through the concordance lines in pairs and discuss any patterns that they noticed. A number of targeted questions then helped them notice any aspects of meaning and form, without expressly informing them of it. Finally students were encouraged to use the target verbs in a semi-controlled question-answer activity. Figure 1 is an example, and full materials can be found in Appendix 1.

The non-DDL tasks followed a more traditional deductive format, where students were first presented with a grammatical rule governing phrasal verbs. They were then given an example sentence for each target verb and encouraged to write their own, before the lesson concluded with the same speaking practice activity used in the DDL tasks. Figure 2 is an example of such a task; the full materials can be found in Appendix 2.

Figure 1

<u>Verb 7: make fun of</u>

1.	The boys at school had	**made fun of**	him and Mr. Sunderland, the headmaster had called him a gullible boy.
2.	He felt that they were	**making fun of**	him, though he could not understand why.
3.	Maidstone found this very funny. 'Franco knows I'm	**making fun of**	him. Look at the anger in his eyes.'
4.	She stiffened, suspecting that he was	**making fun of**	her. She wasn't going to stand for that!
5.	The others at school keep	**making fun of**	me and saying things.
6.	We laughed a lot,	**made fun of**	them and their new outfits.
7.	Even the one or two who didn't continually	**make fun of**	him and tease him and play jokes on him.
8.	Was he joking? Was he serious? Was he	**making fun of**	her? There was absolutely no way of knowing.

Grammatical questions

1. Is the verb 'make fun of' ever broken up?
2. What type of word or phrase usually comes before and after 'make fun of"?

Meaning questions

1. How many people or groups or people are involved in each line?
2. How does the person being 'made fun of' feel in lines 3 and 4?
3. How does the person making fun of another person feel in line 6?
4. Is there a word or group of words with a similar meaning to 'make fun of' in line 7?

Figure 2

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Intransitive phrasal verbs

1. **They cannot be broken up.** e.g ~~My car broke down~~ NOT ~~I broke my car down.~~
2. *Unlike every other type of phrasal verb,* **they cannot carry an object.** This means that **they are almost never followed by a noun**, and instead are usually either at the end of a clause/sentence, or followed by a preposition to continue the sentence. e.g. *My car broke down.* NOT ~~I broke down my car.~~
3. **They usually have a preposition or adverb as the last word**. e.g. *break* <u>*down*</u>.

Match the phrasal verbs to their meaning

Type	Phrasal verb	(matching line)	Meaning
C (transitive)	fall through		To fall asleep, usually for a short time or without meaning to.
C (transitive)	nod off		To fail to be completed.

Example sentences

Try to write your own example sentence for each phrasal verb. An example is given.

Fall through

I nearly got the contract with the company, but it fell through.

_____

Nod off

I was so tired after work that I nodded off in front of the TV early in the evening.

_____

<u>Speaking practice</u>

Below are example questions for each of the phrasal verbs. Use the example questions to discuss the topics, and try to think of your own questions using the phrasal verbs as well.

1. *Have you had any plans or deals fall through?*
2. *What situations make you nod off?*

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All treatments took place over one month and each of the DDL and non-DDL classes lasted one hour.

2.4 Evaluation data

For the **learning-based evaluation**, separate, but comparable, pre- and post-tests were administered to both groups of students. The first part comprised a self-assessment of how well they knew the target verbs – 'know it and can use it', 'understand it but can't use it' or 'do not know it'. The second part comprised a cloze test with the target verbs deleted from sentences and provided as options. Both of these sections were objectively scored. Finally, students were asked to write a sentence for each target verb demonstrating understanding of the meaning. This section was subjectively scored with points given correct use of the phrasal verb. Tests scores were analyzed in SPSS (Larson-Hall, 2010) using a Repeated Measures ANOVA, given that there was a within-groups variable, which was time in the form of the pre-test and post-test scores of the participants, and a between groups variable, in the type of treatment the students received, The pre-test was administered a week prior to start of the treatment, and the post-test a week after the completion of the treatment. Each lasted approximately 30 minutes.

For the **response-based evaluation**, classroom recordings were collected with the students' permission. For the **student-based evaluation**, one-on-one inter-views were conducted after the course. These were undertaken to gain qualitative insights into students' thoughts on the class and perceptions of improvement. The interviews were 'semi-structured' (Dornyei, 2007, p. 136), in that although questions were decided upon beforehand, the format was flexible, allowing for particular issues to be explored in more depth if necessary. The interviews took place after the post-test had been completed, as it allowed for the students to assess their level of improvement both before and after their test results were revealed.

To evaluate the **overall feasibility**, the instructor (also the first author) engaged in qualitative self-reflective enquiry – i.e. a form of action research (Stringer, 2014). This involved taking into account the findings of the micro-evaluation

as well as drawing on his own personal knowledge of the context. The aim was to holistically assess whether a DDL approach would be attractive to teachers at private language schools. In doing so, he took into account factors such as teacher preparation time, student speaking time, and overall teacher workload.

3. Results and Discussion

3.1 Learning-based evaluation

Average pre and post-test scores are shown in Table 2. The distribution of these scores is shown in the boxplot in Figure 3. Both classes showed gains in their mean test scores. In the DDL class, the average score in the pre-test was 8.31, and this increased to 14.38 in the post-test. The rise was even greater for those who undertook the non-DDL class, with the mean pre-test score for that group 6.50, rising to 15.69 in the post-test. There was greater variation between scores in DDL class; this was due to one student scoring 20 and 22 in the two pre- and post-test, considerably higher than other students – shown as the outlier marked as '13' in the boxplot (Figure 1). A Wilcoxon signed ranks test demonstrated a significant gain in test scores in the DDL treatment ($Z = -2.52$, $p = .012$).

A repeated measures ANOVA was performed to assess whether the two treatments together had a significant effect on improvements in test scores. There was a significant rise in test scores for both treatments, $F(1, 14) = 69.39$, $p = <$ .001, and also a large effect size, $\eta_p^2 = .83$. Thus, treatment in both the DDL and non-DDL resulted in significant gains in test scores. As for the relation between class type and test score improvements, $F(1, 14) = 2.92$, $p = .11$, with a medium effect size of $\eta_p^2 = .17$. This indicates that although there was some effect for the class taken, the difference in test scores between the two classes was not statistically significant.

In short, the statistical analysis indicates that students achieved significantly better post-test scores than pre-test scores regardless of which class they took. However, there is no suggestion that either method of learning resulted in a

Table 2: Average pre and post-test scores

Class	Pre-test average (standard deviation)	Post-test average (standard deviation)	Average gain
DDL	**8.31** (5.26)	**14.38** (3.74)	**+6.60**
Non-DDL	**6.50** (2.87)	**15.69** (2.90)	**+8.28**

Figure 3: Boxplot of Means
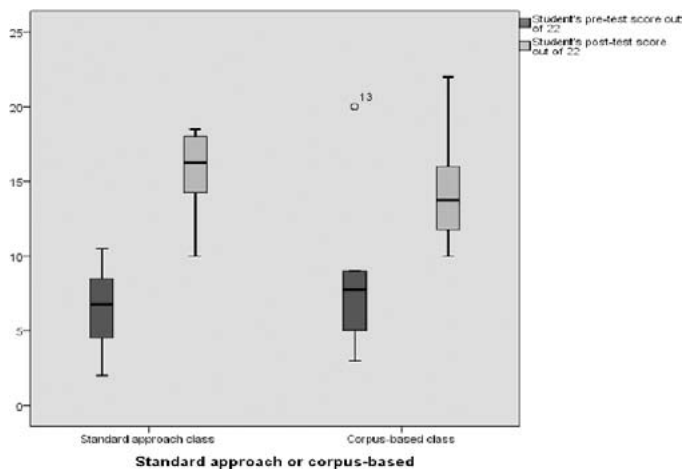
statistically greater gain in test scores than the other.

Consistent with other studies, test scores in the DDL class showed a statistically significant increase. For example, Spring (2018), who used a corpus to teach phrasal verbs, reports similar levels of significance. Indeed, most of the studies reported in Boulton and Cobb's meta-analysis (2017) report statistically significant results. Although the effect size detected in the present study, albeit for both treatments, was 'large' (0.83), it is actually lower than the mean of 1.5 reported in meta-analysis mean. Boutlon and Cobb (2017) note that lowered effect sizes can be tied to smaller sample sizes. Although 16 participants represents a small sample size, and, thus, a limitation of the study, it is not unusual for a study of this kind. Of the 64 studies in Boulton and Cobb's (2017) meta-analysis, 17 had fewer than 16 participants, and two had exactly 16.

As there was no significant difference between the treatment types, it can be posited that both treatments were effective in improving test scores. In other words, the DDL class was no more effective in helping the students to acquire the target phrasal verbs than the non-DDL approach. As students exposure to the target verbs was limited to the classroom (i.e. they did not review at home), we infer that test score gains were a result of the treatment. The recordings, interviews and student surveys provide further insights as to how this student learning was achieved.

3.2 Response-based evaluation

The lesson recordings revealed a generally more active classroom in the DDL class, with considerably more student speaking time. A summary of percentage estimates of student speaking time in the two classes can be seen in Table 3.

Except for in the first lesson of the course, when a considerable amount of time was required for procedure explanation, the teacher was mostly able to take a backseat role as monitor in the DDL class. However, the recordings also showed that timing was a major issue for the teacher in the DDL class. On several occasions the class took up to ten minutes to analyze the concordance lines of a single phrasal verb. Overall, the efficiency in the DDL class seemed to be low, with the six-to-eight phrasal verbs per class barely covered in the time. This also meant

Table 3

	DDL Class			Non-DDL Class		
	Student Talking Time	Teacher Talking Time	Other (including silence)	Student Talking Time	Teacher Talking Time	Other (including silence)
Lesson 1	70%	20%	10%	36%	34%	30%
Lesson 2	79%	10%	11%	42%	35%	23%
Lesson 3	77%	11%	12%	41%	36%	23%
Average	**75%**	**14%**	**11%**	**40%**	**35%**	**25%**

there was little time for the students to practise using the phrasal verbs in the freer speaking activity at the end of the class – between five and fifteen minutes per pair, depending on how quickly they got through the concordance lines.

Student talk in the DDL class focused predominantly discovering the meaning and form of the target language. Some pairs were more effective at this than others. For example, one pair discussed each phrasal verb in detail, and collaboratively managed to work on the target language with almost no teacher assistance. With another pair, however, there was little collaboration with the higher-level student dominating, while one pair required a considerable amount of teacher feedback.

Allowing for ample student talking time (STT) in language learning class is generally perceived to have benefits for learning (Ellis, 2008) and motivation (Dornyei, 2001). Clearly, what constitutes an appropriate balance of STT is dependent on context (e.g. aims of the class, level of the students). While Nunan (1991) recommends that students should be talking between 70 and 80 percent of the time, Davies (2011) warns that SST can be an unreliable indicator of classroom effectiveness. In this context, the greater SST in the DDL class can be seen as a positive aspect of the approach. The fact that much of this STT was spent on the discovery of meaning is also believed to be beneficial for vocabulary acquisition (Ellis, 2008), although the lack of freer practice was not ideal.

The class recordings showed that DDL is time-consuming, and this was also mentioned by a few students in the interviews. This represents a drawback of the DDL approach and was not unexpected. Cheng et al. (2003) and Chambers (2005) report similar issues, as do many of the studies in Boulton and Cobb's (2017) meta-analysis. The teacher often had to push the students to work through the sentences faster, despite which the concordance line analysis still took up the majority of each lesson. This gave the students a feeling of being rushed. A possible solution to these problems would be, as one of the students suggested in the interviews, to reduce the number of concordance lines analyzed. Another

alternative would be to have fewer grammar and meaning questions.

It was hoped that as they progressed through the course, students would become more efficient users of DDL. In terms of speed, the recordings indicate that efficiency increased only slightly. In the first class, the students spent an average of five minutes discussing the concordance lines of each phrasal verb, but this fell to just under five minutes in the final lesson. Moreover, as the lessons progressed students were more likely to 'skip' concordance lines that they did not understand.

In the non-DDL class, lesson timing appeared to be more consistent. The students were able to have 15 to 20 minutes of freer speaking time at the end, and there was even enough time left for group feedback. However, despite the longer freer speaking segment, overall student speaking time was much less prevalent than in the DDL class overall, as more time was spent with teacher explanation, individual student speaking time (e.g. with only one student answering a question in front of the class) and silent classwork (e.g. writing example sentences). The recordings also showed the role of teacher in the students' learning process. The teacher aimed to be "facilitator and guide" rather than instructor, as recommended by Aston (1995, p. 261). For most of the DDL lessons the teacher monitored and gave occasional feedback. This feedback was either advisory or evaluative. Advisory feedback included intended to push the students in the right direction, such as 'How are these two sentences similar?' or 'What tends to come after the phrasal verb in these sentences?'. There were also statements which served the same purpose, including "this sentence is a clear example" or "focus on the difference between these two". Finally, the evaluative feedback was utilized for time management or encouragement purposes. This feedback included advice such as "good, that's right, move on" or "you're doing well, keep going". Overall, the teacher's role was generally successful as it met the requirements of "facilitator and guide" instead of lecturer that had been a goal beforehand.

3.3 Student-based evaluation

The majority of students reacted positively to DDL. In the interviews, four DDL students said they preferred this method to their usual lessons, two liked both ways, while two preferred a more inductive approach. From those who preferred DDL, comments tended to focus on enjoyment, motivation, learning method and amount of speaking time. In terms of enjoyment, one student said that the approach "was like a fun game; not passive study", while another described the classes as "fun, interesting and beneficial". Two students specifically mentioned motivation in their feedback, with one calling the approach a "very motivating style" and another labelling it "more motivating than the usual way". The learning method was discussed by several students, with one saying it was "good to imagine meaning" and another saying "it takes longer but is eventually more effective". Finally, one student spoke about the amount of STT, praising the classes as they "include a lot of discussion with other students". It is also worth noting that the most positive feedback tended to come from more advanced students.

The two students who enjoyed the course less both stated that they preferred to be told the meaning of words rather than uncovering it themselves. The first said simply "I prefer to be told the meaning" while the other similarly stated "this way of learning is not for me; I prefer to be told (the meaning)". There were also drawbacks mentioned by the interviewees, even those who enjoyed the course overall. The main criticism was that the process was too time-consuming, while another was that there were too many concordance lines to get through.

The motivational benefits of DDL mentioned above seem to match those found by Kennedy and Miceli (2001) and Yoon and Hirvela (2004). Moreover, the positive feedback from several students on the DDL method seems to match the results of other studies (Cheng et al., 2003; Chambers, 2005; Boulton & Cobb, 2017) which have suggested that students enjoy self-learning via authentic language. On the other hand, the two students who stated clearly that the approach

did not suit them as they would prefer a more instructive approach corresponds with Whistle's (1999, cited in O'Keeffe & McCarthy, 2011, p. 365–367) findings that DDL is not liked by some students, as they find it 'frustrating' to have to decipher meaning when it is faster simply to be told.

The interviews demonstrated that the students did generally respond positively to the DDL approach, which matches the expectations of the study given previous research. Regardless of whether the students enjoyed the new approach because it was novel or for its value in learning, their enjoyment is beneficial as motivation is intrinsically linked to learning (Dornyei, 1998).

The responses from those who took the non-DDL class were also positive overall, but less enthusiastic. The most common piece of positive feedback was that the course was "useful", while another who enjoyed the course labelled it "fun" and one said "I had more chance to speak than in my university class". Negative responses tended to focus on the lack of time spent speaking with others. This was represented in statements such as "there was not enough time talking with others" and "it needs more writing and speaking time". Two students labelled the course "difficult", while another felt that they "didn't get meaning from others, only the teacher".

3.4 Overall feasibility

Implementing DDL in this setting was found for the most part to be feasible, but with considerable limitations. The teacher was able to construct materials with relative ease using BNCweb, and despite no prior experience, successfully use them the concordance lines in the classroom. Moreover, the teacher himself enjoyed the process. As the students grew accustomed to the new approach it actually became less work for the teacher overall, due to the fact that only a monitoring role was required. However, timing remained an obstacle; both preparation time and in-class activity timing. Creating the lessons took longer than a typical teacher at a private language schools might be expected to be

able to spend on preparation. For example, for a regular lesson at the school in question, less than an hour of preparation time is considered reasonable. In total, about 12 hours were required to prepare for all three lessons. Also, as mentioned in 3.3, the DDL class lacked efficiency, with much more time being taken for students to understand each phrasal verb via the concordance lines than in the non-DDL class.

There are potential solutions for teachers who might wish to incorporate DDL into their lessons. Firstly, repeated use of the materials with different would go some way to offset the time spent on materials preparation. Creating new teaching materials can be time-consuming irrespective of whether they are DDL based or not. Furthermore, repeated use might also improve in-class efficiency as both the instructor and students get used to the new lesson structure. With repeated use the teacher hone the materials based on classroom experience (i.e. action research) – for example, by identifying which concordance lines and questions are effective and adapting the materials appropriately. Finally, the students could even be trained to utilize a corpus at home to revise the words learned in class.

4. Conclusion

This study presented a micro-evaluation of DDL in a Japanese private language school. Although comprehensive meta-analyses such as Boulton and Cobb's (2017) indicate there a corpus-based approach to language teaching can result in learning, it is still unclear whether for vocabulary acquisition it holds any advantages over other approaches. The present study has also been unable to show that DDL resulted in more learning than a non-DDL approach.

However, that is not to say that the findings are not positive. The learning-based evaluation suggested that learning was achieved via this method – test scores for the DDL class increased significantly. The response-based evaluation indicated that the DDL tasks seemed to result in patterns of interaction and cognitive processes thought to be conducive to language learning – e.g. increased student

talk time, a student-centred classroom, a focus on meaning and form in student talk. In addition, the student-based evaluation showed that students reacted positively to the approach, supporting previous claims that DDL often has a positive effect on student motivation.

One limitation of this study was that it was relatively small, although having just 16 participants is not unusual for a study of this kind. Of the 64 studies in Boulton and Cobb's (2017) meta-analysis of similar research, 17 had fewer than 16 participants, and two had exactly 16. Nevertheless, a study with a greater number of participants would have allowed for greater quantitative analysis, with post-hoc tests perhaps revealing more as to which type of student benefited most from the approach.

The study has allowed the class teacher (also first author) to conclude that a DDL approach could assist with the teaching of phrasal verbs and that DDL can be incorporated into lessons at private language schools, although the creation of materials does take time. In the classroom, the teacher's role was less prevalent than in other classes, suggesting the approach may reduce in-class teacher workload. For other teachers at private language schools implementing a DDL course may therefore have benefits, but only if they or their organization have time to create materials that would do the methodology justice.

5. References

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6. Appendices

Appendix 1: Materials from the DDL class (sample)

<u>Phrasal verbs from DDL class – Lesson 1</u>

<u>wake up (example)</u>

1.	The dogs were all asleep and refused to	**wake up**	.
2.	But I	**woke up**	in the middle of the night and couldn't get back to sleep.
3.	Naps during the daytime and	**waking up**	during the night would both increase.
4.	I like to	**wake up**	with a cup of Assam, a very strong tea.
5.	Someone will remember to	**wake** me **up**	early tomorrow, won't they?
6.	It was only right that she should	**wake up**	Jack for fresh hot-water bottles to be applied to the injured areas.
7.	At 1am Gina came in, switched on the light and	**woke** him **up**	.
8.	At times I would	**wake up**	in the night, streaming with sweat, from a nightmare.

Grammatical questions

1. Is 'wake up' ever broken up (a different word used between the two words of the phrasal verb)?
2. What type of word usually comes before and after 'wake up' (any of the same types of word, such as a noun/verb/adjective)?

Meaning questions

1. What do lines 1, 2 and 3 have in common?
2. What time of day do lines 2, 3, 7 and 8 have in common?
3. What verb do you think has the opposite meaning of 'wake up'?

Example sentences

Fill in the blanks with the phrasal verbs from the box. You may need to change the form of the phrasal verb.

call off	figure out	rule out
turn down	get over	count on

1. The phone rang. It was Betty _____ their game of tennis. 'Sorry, I've got to take Jerry to a party,' she said.

2. Please keep it a secret about where we are. I know we can _____ you.

3. My friend keeps inviting me to visit her in Scotland but I always _____ her _____.

4. I still haven't _____ how to open all the doors.

5. I think your doctor is right when he says that you need to _____ the loss of your dad and your friend.

6. A: 'I like a woman who is independent; someone who has their own points of view.'

B: 'Sorry, Clint, that _____ me _____. I'm hopeless at doing things by myself.'

Speaking practice

Below are an example question for each of the phrasal verbs. Use the example questions to discuss the topics, and try to think of your own questions using the phrasal verbs as well.

1. *Have you had to call anything off recently? Why?*
2. *Do you enjoy figuring things out more, or being told the answer?*
3. *What jobs would you rule out ever doing?*
4. *Describe a time when you turned someone down.*
5. *Does it take you a long time to get over heartbreak?*
6. *Who is someone you know you can always count on?*

Appendix 2: Materials from the non-DDL class

<u>Types A and B: Transitive Phrasal Verbs</u>

Phrasal verb basics

Phrasal verbs are verbs that have more than one word. They are especially useful in spoken English or informal written English, and using a lot of phrasal verbs will make your speech sound more natural.

Examples you probably know include 'get up', 'turn on' and 'look forward to'. Some phrasal verbs are more literal, meaning that the words state only their basic meaning, while others are more figurative or metaphorical, where the meaning is more indirect and less obvious. Some phrasal verbs can have both literal and figurative meanings, depending on the situation.

For example, let's look at 'stand up'. The literal meaning of this phrasal verb is that one stops sitting or lying down, and instead stands. For example: 'Ok children, let's get off the floor and stand up!' The figurative meaning, when adding 'for' suggests supporting someone or something, as in 'We need to stand up for human rights', while if we add 'to' it means to challenge someone or something, such as 'We should stand up to bullies'.
In these lessons, we will be looking at more figurative phrasal verbs.

Phrasal verb Types

There are four types of phrasal verb. Today, we will be looking at the first two types: Transitive A and Transitive B.
Here are some important rules to remember about the two types.

1. **Both** Transitive 1 (Type A) phrasal verbs and Transitive 2 (Type B) phrasal verbs **have two words**.
2. **Both** Transitive 1 (Type A) phrasal verbs and Transitive 2 (Type B) phrasal verbs **can have an object** (usually a noun). E.g. *I woke up **my father.***
3. **Transitive 1 (Type A) phrasal verbs can be broken up,** meaning it is sometimes OK to put one or more words between the two words in the phrasal verbs.   e.g *I was woken up at seven o'clock this morning by my father.* OR *My father woke me up at seven o'clock this morning.*
4. **Transitive 2 (Type B) phrasal verbs cannot be broken up**, meaning it is never OK to put one or more words between the two words in the phrasal verb.   e.g. *I am working on my essay.* NOT *I am working my essay on.*
5. **The second word of a phrasal verb is always a preposition.** *E.g. wake **up***

1. In partners, <u>try to think of some transitive phrasal verbs.</u> If you can break them up, they are definitely Transitive 1 (Type A). If you cannot break them up, they may or may not be Transitive 2 (Type B).

2. Match the phrasal verbs to their meaning

Type	Phrasal verb	(matching line)	Meaning
A	Call off		To rely on and trust someone or something.
A	Figure out		To cancel.
A	Rule out		To recover from something, usually a negative experience.
A	Turn down		To understand something or solve a problem.
B	Get over		To eliminate something; to make impossible.
B	Count on		To say no/reject someone/something.

<u>3. Example sentences</u>

Try to write your own example sentence for each phrasal verb. An example is given.

Call off

The tennis match has been called off because of rain.

_____
_____

Figure out

It was difficult, but in the end I managed to figure out how to finish the puzzle.

_____
_____

Rule out

I'm not that interested in working at a high school, but I wouldn't rule it out.

_____
_____

Turn down

I applied to Tokyo University, but was turned down.

_____

_____

Get over

I was so disappointed by failing the test that even though three weeks have passed I can't get over it.

_____

_____

Count on

If you are ever in trouble, you can count on me to help you out.

_____

_____

4. Speaking practice

Below are an example question for each of the phrasal verbs. Use the example questions to discuss the topics, and try to think of your own questions using the phrasal verbs as well.

1. *Have you had to call anything off recently? Why?*
2. *Do you enjoy figuring things out more, or being told the answer?*
3. *What jobs would you rule out ever doing?*
4. *Describe a time when you turned someone down.*
5. *Does it take you a long time to get over heartbreak?*
6. *Who is someone you know you can always count on?*