



**EFFECTIVENESS OF ENGLISH PREPOSITION
LEARNING THROUGH DATA-DRIVEN LEARNING
(DDL)**

BY

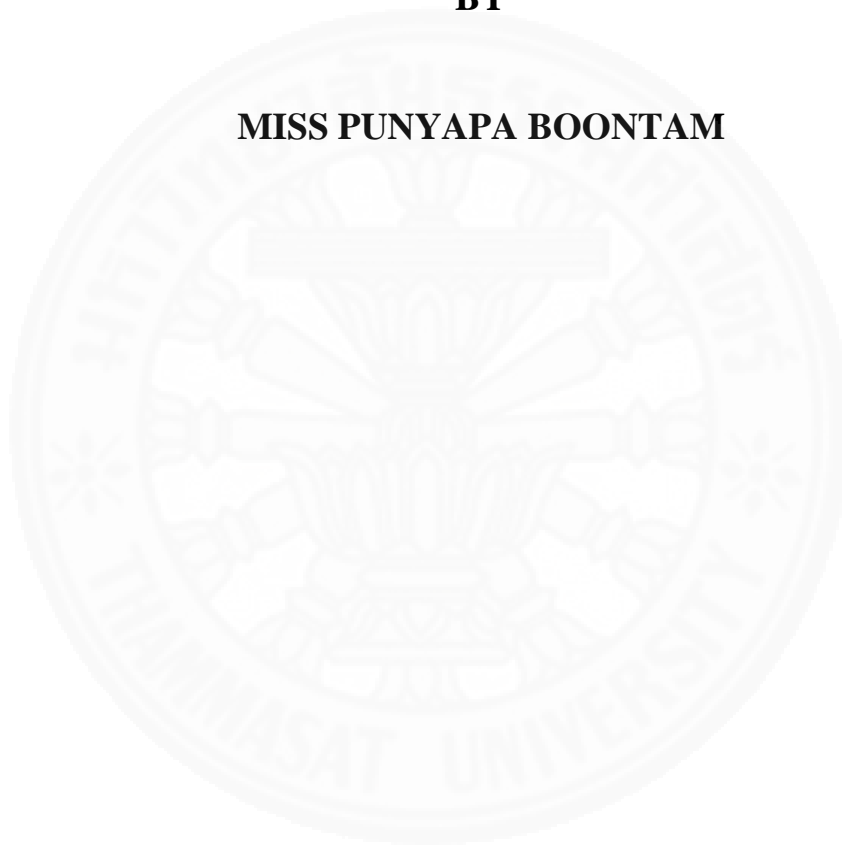
MISS PUNYAPA BOONTAM

**A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF
THE REQUIREMENTS FOR THE DEGREE OF MASTER OF
ARTS IN ENGLISH LANGUAGE TEACHING
LANGUAGE INSTITUTE
THAMMASAT UNIVERSITY
ACADEMIC YEAR 2016
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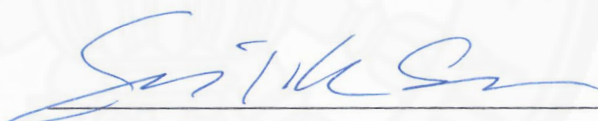
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EFFECTIVENESS OF ENGLISH PREPOSITION LEARNING THROUGH DATA-
DRIVEN LEARNING (DDL)

was approved as partial fulfillment of the requirements for
the degree of Master of Arts in English Language Teaching

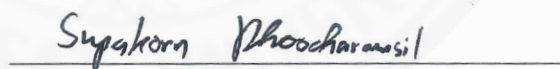
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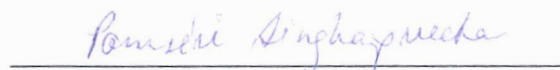
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ABSTRACT

This study aims to investigate the effectiveness of paper-based data-driven learning (DDL) method in developing young Thai students in learning three English prepositions, which are *during*, *among* and *between*, and to examine the attitudes of the participants towards learning through the DDL activities. The participants were 30 Thai grade 4 students who have A2 CEFR level, studying in a private school in Nakhonsawan province, Thailand. In order to analyse the data, the mean scores of pre-test and post-test were compared by using paired-samples t-test. The tests consists of gap-filling, grammaticality judgement test and sentence building. The results showed that there was a statistically significant difference in their mean scores ($p < 0.001$), which increased from the pre-test to the post-test after DDL activities were introduced to the students. According to the test results, it was found that the participants could develop their grammatical consciousness and produce more meaningful and grammatical sentences with a variety of complexity. Moreover, the questionnaire and interview responses revealed the positive attitudes of the participants towards learning through the DDL method as they found it fun, interesting and challenging, and they considered this method as a helpful resource for learning new grammatical knowledge. Thus, this study yields an instructive result that

DDL can be applied with young EFL learners and could be an encouraging teaching method for EFL/ESL teachers.

Keywords: Data-driven learning (DDL), English preposition teaching, young Thai EFL students, Corpus linguistics



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Miss Punyapa Boontam

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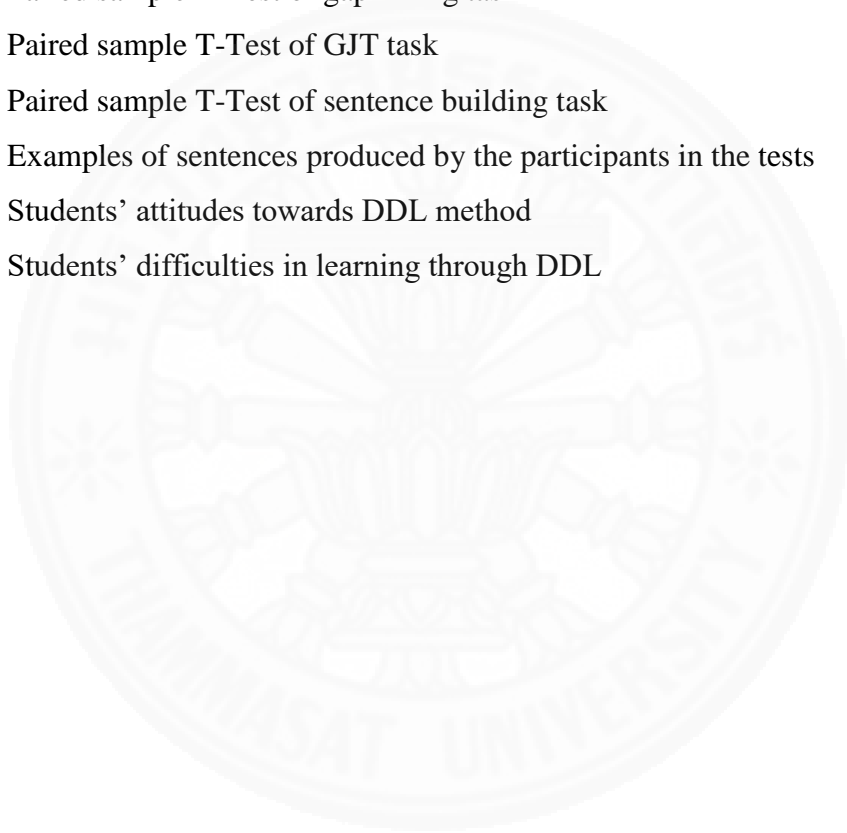
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LIST OF ABBREVIATIONS

| Symbols/Abbreviations | Terms |
|------------------------------|---|
| BNC | British National Corpus |
| CA | Conventional Approach |
| CALL | Computer-Assisted Language Learning |
| CEFR | Common European Framework of Reference for Languages |
| COCA | Corpus of Contemporary American English |
| DDL | Data-Driven Learning |
| EFL | English as a Foreign Language |
| ESL | English as a Second Language |
| GCR | Grammar Consciousness Raising |
| GJT | Grammaticality Judgement Task |
| GTM | Grammar Translation Method |
| IEP | Intensive English Programme |
| KWIC | Key Word In Context |
| L1 | First Language |
| L2 | Second Language |
| SLA | Second Language Acquisition |

CHAPTER 1

INTRODUCTION

1.1 Background

Grammar is considered as one of the most difficult skills of English for Thai students because of the differences of Thai and English grammar (Anyan, 2006). Anyan explained that Thai grammatical structure is more straightforward than English's, for example, Thai language does not change verb forms to show differences between the past or present like English language because Thai people often use conjunctions as time markers; i.e. *ja* for the future and *ma* for the past. Also, articles do not exist in Thai language. Due to these differences, Many Thai students are usually not aware of proper English grammar when they use the language and tend to produce ungrammatical sentences. Choomthong (2014) claimed that too much reliance on L1 in the English classroom can cause the 'fossilization' of an interlanguage because it can prevent students from directly thinking in a new language.

One of the most problematic grammatical mistakes among EFL students is prepositions. There is a discrepancy in preposition use between English and other languages. (Celce-Murcia & Larsen-Freeman, 1999, as cited in Delija & Koruti, 2013). This error tends to occur when learners, especially beginners, try to use prepositions by translating from their L1 to the target language, so learners cannot depend on only their first language in learning prepositions. There is a mismatch between Thai and English prepositions in some contexts (Chiwpreecha, 2012 as cited in Promma, 2014). For instance, some Thai learners would say "There are many stars *on* the sky." instead of "There are many stars *in* the sky" if they transfer their L1 Thai knowledge of preposition to English, which is grammatically incorrect.

Although grammar is introduced to Thai students at an early age, most of them still cannot apply their learnt grammar to real life communication (Chingchit, 2008; Choomthong, 2014). It is possibly more beneficial for students if teachers pay more attention to the teaching procedures when teaching grammar to the students by changing the teaching methods, for example, focusing more on inductive language

teaching rather than only using the Grammar Translation Method (GTM), which is the most popular method among Thai English teachers. Most Thai teachers who do not master English seem to be more comfortable with the GTM because they are allowed to use L1 in the classroom and translate the content in textbooks from English to Thai, which can lead to the failure of English language education since students appear not to be able to communicate in English (Thonginkam, 2003). Chingchit (2008) also points out that Thai teachers are forced to use the grammar translation approach to teach their students so that students will get good scores on the standardised examination because of the current English curriculum of Thailand that heavily emphasises grammar rules rather than communicative language skills.

According to Jones and Waller (2015), ESL/EFL teachers usually follow the provided textbook rather than consulting corpora, a collection of texts, written or spoken, which is stored on a computer (O’Keeffe, McCarthy & Carter, 2007, p.1). ESL textbooks mostly contain ‘simplified’ language which does not present learners with the authentic language used by native speakers (Thornbury, 2007, as cited in Chingchit, 2008). Hence, corpora can be an interesting tool in teaching grammar due to the following reasons, (1) corpora can reveal the frequency and the useful patterns of language in the authentic context, (2) learners can explore new and unusual language patterns which are not provided in the textbook, and (3) corpora can provide the collocation and colligation for particular words as English has predictable chunks.

One of the inductive approaches in grammar learning by using corpus information is “data-driven learning” (DDL), introduced by Johns (1986). Learners have to investigate the language through the concordance lines because these can reveal real examples of language from native speakers. Learners have to identify, analyse and generalise the language patterns from the given data. The role of teachers is more like a helper who guides students while they are looking for patterns. This approach can be called the “student-initiated language research” which can enhance learner autonomy.

There have been some studies on using DDL in grammar teaching. For example, Bolton (2010) found that paper-based DDL significantly increased the post-test scores of second-year non-native students who had low English proficiency level. Huang (2014) also investigated the effectiveness of DDL approach with third-year

Chinese students. He found that DDL can better students' production in writing. However, there are few studies on using DDL with young learners. Therefore, this present study was conducted to ensure that DDL can be applied with learners at all ages and levels of proficiency.

1.2 Objectives of the study

The objectives of the study were the following:

1.2.1 To investigate the effectiveness of data-driven learning (DDL) method in developing young Thai EFL students in learning English prepositions.

1.2.2 To examine the attitudes of young Thai EFL learners towards learning English prepositions through DDL approach.

1.3 Research questions

Based on the problem and the related literature explained above, this study attempts to answer two research questions:

1.2.1 Are there any significant differences in the scores of pre-test and post-test after DDL is introduced in English preposition teaching?

1.2.2 What are young Thai EFL learners' attitudes towards DDL approach?

1.4 Hypotheses

In keeping with the above research questions, the following hypotheses, accordingly, were formulated:

1.4.1 Young Thai EFL learners will gain significantly higher post-test scores than post-test scores after studying English prepositions through DDL.

1.4.2 Young Thai EFL learners will have positive attitudes towards DDL approach in learning English prepositions.

1.5 Definition of terms

The definition of terms of this study is as follows:

Paper-based data-driven learning (DDL)

Paper-based DDL in this study involved materials designed by the researcher using the concordance lines which were extracted from Graded Readers Corpus available in “The Compleat Lexical Tutor” (<http://www.lextutor.ca>), developed by Tom Cobb (2015), an online computer program for developing data-driven language learning. Activities and exercises were also included in the materials. The DDL activities in this study was the teacher-led end, in which the researcher helped guide the participants when they encountered some unfamiliar words or difficult structures, due to their limited English exposure.

English preposition teaching

Grammar items to teach in this study were prepositions of place and prepositions of time, i.e. *among*, *during* and *between*.

Thai EFL students

Thai EFL students in this study were Grade 4 students in an Intensive English Programme (IEP) who have A2 CEFR level, studying in a private school in Nakhonsawan province.

1.6 Scope of the study

The study focuses on English preposition teaching (i.e. *among*, *during* and *between*), by using paper-based data-driven learning (DDL) method with Grade 4 Thai learners.

1.7 Significance of the study

This study is significant in several aspects as follows:

1.7.1 This study will raise Thai EFL teachers’ awareness of the use of corpora in teaching grammar, especially through a DDL method, to Thai school students.

1.7.2 This study will encourage Thai EFL teachers to teach grammar inductively rather than using a traditional deductive method.

1.7.3 This study will provide EFL/ESL teachers with some samples of paper-based DDL materials in teaching prepositions, and instruct teachers to design useful teaching materials.



CHAPTER 2

REVIEW OF LITERATURE

2.1 Corpus Linguistics

2.1.1 Definition of corpus linguistics

O’Keeffe, McCarthy and Carter (2007) have defined a corpus as “a collection of texts, written or spoken, which is stored on a computer” (p.1). Moreover, a corpus can be used to conduct both qualitative and quantitative analyses. A corpus can provide the numbers of occurrence or frequencies of a particular word or phrase, which are the quantitative results. For qualitative analysis, it is how a word or phrase occurs in each context, for example, the differences of language patterns used by women and men. Sinclair (1991) also indicates other benefits of a corpus as it consists of authentic or naturally occurring data. Lindquist (2009) has defined corpus linguistics as a methodology to analyse the rules of language and language changes that occur through time when people of different languages interact.

2.1.2 Corpus as a tool to investigate language

The reason why investigating a target language through corpora is better than doing it manually is ‘speed’ and ‘reliability’ (Lindquist, 2009). Also, an electronic corpus provides researchers with frequencies of each particular language use. Furthermore, a corpus can uncover unusual language patterns or other aspects of language that native speakers’ linguistic intuition cannot. Corpora can also be used to test or challenge researchers’ hypotheses in language or the standard rules of language defined by intuition. (Jones & Waller, 2015) Thus, a corpus can reveal the real use of language.

2.1.2.1 Analysing corpora

The linguist may handle corpus data by analysing either concordance lines or frequency lists (Evison, 2010; Lindquist, 2009).

(1) Concordance lines

“A concordance is a list of all the contexts in which a word occurs in a particular text” (Lindquist, 2009, p.5). In order to identify aspects of a particular word or phrase, such as lexico-grammatical patterns or semantic prosody, a linguist usually extracts the data from the ‘Key-Word-In-Context’ (KWIC)

concordances, in which all the occurrences of the search item or ‘node’ (O’Keeffe, McCarthy and Carter, 2007) will be displayed vertically in the centre of the line. Meaning and collocations can be analysed through concordance lines by looking at the context and items around a node word (Evison, 2010). For example, in Figure 1, the node word is *learn*, which is presented in the middle of the page. The surrounding words can enhance learners’ awareness of lexico-grammatical knowledge; for example in this context, the node word *learn* can be followed by the prepositional phrase introduced by *about* and *alongside* as in *about computer* and *alongside the pupils*.

Figure 1 KWIC Concordance lines for *learn* from BNC

| | | | | | |
|--|-------|-----------|------------------|---|--|
| also provide part-time courses for local people to come in to | learn | about | Art | History | and to use the collections in the Barber as |
| problems . Without this , students might ask : ' Why | learn | about | benefits | it all looks straightforward . ' In the first | |
| century just as contemporary liuxuesheng (overseas students) | learn | about | computers | and technology | at American universities . |
| southern England I , I was sent to different hospitals to | learn | about | different things | to learn about erm psychiatry and | |
| " had three main objectives : to encourage young people to | learn | about | environmental | issues | ; to help students develop |
| making almost any change was better than standing still . We | learn | about | ourselves | by making | mistakes , as well as through success ; |
| longed to know about the world in which she lived , | learn | about | strange | lands | beyond the seas , and the even more puzzling |
| launched a campaign to make children ' think green ' and | learn | about | the | countryside | and environment . Joseph Dods has begun |
| still have a long way to go and a lot to | learn | about | their | disabilities | But by stretching their abilities to |
| flotilla . Or ; if you 've skippered in Greece , | learn | about | tides | and weather | for UK sailing . # 3 . Competent |
| make their own enquiries , and so that the teacher can | learn | alongside | the | pupils | . The data are all around , once teachers |

(2) Frequency

The computerised corpora can calculate the reliable frequency of each language token, which is important for linguists to compare language patterns in different contexts, register, genres, periods of time, and spoken and written language (Lindquist, 2009). The frequency list can be generated automatically in the electronic corpus, which can be either displayed in rank order of numbers of occurrence or in an alphabetical order. Lexicographers, language syllabus and teaching material designers value frequency lists as useful documents because they provide them with a range of frequency information. Moreover, frequency lists contains statistical measures, for example, Mutual Information (MI scores), t-scores and z-scores, which inform the strength of collocations of such search word (Evison, 2010). For example in Figure 2, the most frequent co-occurring word with *learn* is *how* with the MI scores 3.36. However, the most frequent noun as a collocation of *learn* is *children*. Researchers can use the information from frequency lists to design the teaching materials to teach learners with natural language patterns in the real context.

Figure 2 Frequency list showing collocation of learn from BNC (rank order)

| | CONTEXT | FREQ | ALL | % | MI | |
|----|-------------|------|-------|------|------|---|
| 1 | HOW | 671 | 98107 | 0.68 | 3.36 | ■ |
| 2 | CHILDREN | 262 | 45334 | 0.58 | 3.11 | ■ |
| 3 | LOT | 154 | 27607 | 0.56 | 3.06 | ■ |
| 4 | LANGUAGE | 139 | 18515 | 0.75 | 3.49 | ■ |
| 5 | SKILLS | 123 | 9022 | 1.36 | 4.35 | ■ |
| 6 | LIVE | 96 | 16595 | 0.58 | 3.11 | ■ |
| 7 | READ | 91 | 16913 | 0.54 | 3.01 | ■ |
| 8 | OPPORTUNITY | 83 | 10027 | 0.83 | 3.63 | ■ |
| 9 | PUPILS | 79 | 8061 | 0.98 | 3.87 | ■ |
| 10 | QUICKLY | 78 | 11698 | 0.67 | 3.32 | ■ |

2.2 English prepositions

2.2.1 Definition of preposition

Preposition has been defined as “the word or group of words, such as *in*, *from*, *on*, *out of* and *on behalf of*, use before a noun or pronoun to show place, position, time or method” (“Preposition”, 2005, p. 1188). There are many types of prepositions in the English language, for example, prepositions of time, prepositions of place, and prepositions of direction. The target English prepositions taught in this study are *among*, *between* and *during*.

(1) Among

According to Oxford Advanced Learner’s Dictionary of Current English, *among* has three main meanings which are “1) surrounded by somebody or something or in the middle of somebody or something”, e.g., A house *among* the trees, “2) being included or happening in groups of things or people”, e.g., A British woman was *among* the survivors., and “3) used when you are dividing or choosing something, and three or more people or things are involved”, e.g., They divided the money up *among* the children. (“Among”, 2005, p. 47). Thus, *among* can be used to indicate the positions of something or somebody.

(2) Between

Between can function as both a preposition of time and a preposition of place. As a preposition of place, it is used to separate two or more points, objects, people, or to separate one place from another, for example, I sat down

between Jo and Diana. Moreover, it can be used to show a connection or relationship and when it is shared by two or more people or things, such as, I had to choose *between* the two jobs. *Between* can also be used as a preposition of time to separate two days, years, events, etc., for instance, it's cheaper *between* 6 p.m. and 8 a.m. ("Between", 2005).

(3) During

During is another preposition of time in this study. It is used to indicate “at some point in a period of time”, e.g., I only saw her once *during* my stay in Rome, or “all through a period of time”, e.g., *during* the 1990s ("During", 2005, p. 477).

2.2.2 Difficulties in learning English prepositions of EFL learners

Prepositions are one of the most challenging and difficult English grammar for English as a Foreign Language (EFL) teachers to teach L2 learners (Delija & Koruti, 2013). In terms of preposition learning, EFL learners usually have problems of choosing prepositions, omitting a required preposition and using unnecessary prepositions (Inezan & Najim, 2010). There are several reasons why learning English prepositions is difficult for non-native speakers. Brown (1987) has explained the major causes of a misuse of prepositions made by L2 learners, which are interlingual transfer that occurs when learners tend to translate the target preposition in their first language, and intralingual transfer that occurs when learners overgeneralise the rules (as cited in Delija & Koruti, 2013). Thai learners also encounter similar difficulties in learning English prepositions (Promma, 2014; Chiwpreecha, 2012 as cited in Promma, 2014) It was found that interlingual transfer was the important cause of Thai learners' mistakes on using prepositions, for example, the misuse of *in* and *on* as prepositions of place (Chiwpreecha, 2012 as cited in Promma, 2014).

2.3 Grammar

Grammar can be defined as “the way a language manipulates and combines words (or bits of words) so as to express certain kinds of meaning” (Ur, 2009, p.3). Moreover, grammar should be viewed at every level, such as, morpheme, word, phrase, clause, sentence/utterance and text, since all levels are linked together

from the smallest unit to the largest unit to shape meaning (Jones & Waller, 2015). In addition, grammar and vocabulary cannot be treated separately. Words are formed in predictable patterns which have internal grammatical structure as suggested in the term “lexico-grammar” (Halliday & Matthiessen, 2014, as cited in Jones & Waller, 2015).

2.3.1 Designing grammar practice and activities

There are many factors needed to be considered before creating practice and activities for learners, namely validity, quantity, success-orientation, heterogeneity, and interest (Ur, 2009). In terms of validity, the practice should be aimed to practise the specific target grammatical item directly. It is unnecessary to require reading or translation skills of learners to understand the surrounding text in order to fill in the correct grammatical unit. Also, learners should be exposed to engaging with the target language. Thus, low-quantity exercises can lead to ineffective learning. Moreover, in order to create a positive classroom, teachers need to provide success-orientation by selecting the activity that is not too difficult for learners to make them feel successful, reviewing the lessons before doing the task (known as pre-learning), and helping learners to achieve their learning process including scaffolding and giving wait-time. Heterogeneous exercises, sometimes known as open-ended exercises should be used to evaluate learners in various levels of proficiency because closed-ended exercises (homogeneous) have only one correct answer which limits the ability of learners. Lastly, the practice should be interesting for learners to reduce boredom in the classroom.

2.3.2 Grammaticality judgement test (GJT)

Grammaticality judgement test (GJT) is considered as one of the reliable test to evaluate learners’ knowledge of grammar in second language acquisition research (Mandell, 1999, as cited in Tan & Nor Izzati, 2015). Many researchers used GJT to measure both ‘receptive knowledge’ (i.e. language competence), and ‘productive knowledge’ (i.e. language performance) of L2 learners (Tan & Nor Izzati, 2015). In the test, learners were asked to judge whether a given item is grammatical or not, and provide the correct answer if it is grammatically incorrect. On the other hand, some researchers are not confident with the reliability of GJT. For example, Ellis (1991) argued that GJT might not be a suitable task for beginning learners because

learners' judgements were inconsistent (as cited in Tan & Nor Izzati, 2015). Also, Rahimy and Moradkhani (2012) suggested that GJT could be ambiguous for beginning learners.

2.4 Corpus linguistics and grammar

Hughes (2010) has clarified the differences of terms regarding corpus and grammar learning that 'data-driven' is used when "you derive the model of your grammar from the instances in your corpus", whereas 'data-informed' is when you already have your hypotheses and you want to prove your grammar rules by finding more evidences from a corpus. Hence, 'corpus-based' is a general term.

A corpus can be used to analyse grammar in terms of frequency, chunks and semantic prosody, an underlying connotation in context. Jones and Waller (2015) have suggested the advantages of using a corpus as a tool to analyse grammar as, firstly, researchers can use a corpus to confirm or refute their hypothesis or linguistics intuition and explore new patterns in the target language. Conrad (2010) also pointed out that corpus linguistics enables researchers to examine the "typical or untypical" grammatical patterns in different contexts and explore the "common or uncommon" grammar choices. These patterns are associated with other factors in discourse or situational context, such as means of communication, culture and social relationship. Frequency analysis is useful to examine typical and untypical grammatical patterns because it reveals the patterns of language use that researchers are not aware of. For example, the analysis of "most common verbs with that-clause objects" (Biber, Johansson, Leech, Conrad, & Finegan, 1999, as cited in Conrad, 2010) reveals three most common verbs used with 'that-clauses' to report thought and feeling in spoken language in both American and British English, which are *think*, *say* and *know*. On the other hand, they found that these patterns are less frequent in academic prose, but *suggest* and *show* are most frequently used with *that-clause* to report previous research.

The second advantage of corpus linguistics is it provides the authentic language that native speakers naturally use in the real context. Jones and Waller (2015) found that the verb forms *marry*, *marries* and *married* had different numbers of occurrences in different contexts, as *married* is the most common word form in

both newspapers texts and spoken corpus from COCA corpus in the form of adjective. Moreover, ‘married’ commonly co-occurs with the form of the verb *to be* in newspapers, whereas *get* collocates with *married* most frequently in the spoken corpus. Therefore, they concluded that a corpus provides grammatical patterns and evidence to help underline the intuition that *get married* was used commonly in spoken language to make the interpreted data more reliable rather than relying on only intuition.

Although Sinclair and Kirby (1990) argued that a corpus cannot represent common usage of language in every aspect as the *valid models* for learners (as cited in Cheng, 2010), corpus-based learning still plays a crucial role in motivating learners to interpret the data given and come up with their own models (Leech, 1986, as cited in Cheng, 2010).

2.5 The application of corpus in language teaching

2.5.1 Indirect applications

Römer (2008) suggests how teachers can apply corpora to designing corpus-based teaching materials and teaching syllabi. English teachers usually follow the language patterns presented in the textbook and assume that a textbook provides the most frequent and useful patterns for learners. Most textbook writers did not consult a corpus when they wrote the textbooks but tend to rely on their own intuition and what other textbooks do in general (Jones & Waller, 2015). According to Biber and Reppen’s findings (2002), there are mismatches of information between classroom grammar materials and actual language use; therefore, teachers should take frequency and register differences into account for a better learning process by learners (as cited in Cheng, 2010). Furthermore, most English textbooks are designed to teach grammar explicitly and deductively, which provide learners various exercises, such as memorising dialogues, reading simplified texts, and doing transformation exercises (Cowan, 2008). Long (1997) argues that explicit teaching like “focus on forms” can make learners feel overwhelmed with too many grammatical forms that rarely meet their needs, and does not provide real-life language use to learners (cited in Cowan 2008). For example, in terms of preposition teaching, Delija and Koruti (2013) claim that many English coursebooks only

provide learners with a general overview of prepositions without providing additional rules for some particular contexts, and lack the information about co-occurring verbs and nouns of each preposition.

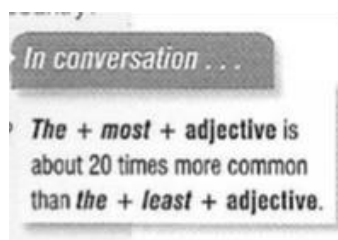
Jones and Waller (2015) examined the grammatical patterns of *going to*, *able to* and *was/were + v +ing* in the textbooks in which they are introduced to learners respectively, which means *going + to* is the first pattern that learners should acquire according to the textbook. However, when they investigated these patterns in the British National Corpus (BNC), it was found that the last pattern that the book introduces to learner, which is *was/were + v. + ing*, has the highest number of occurrence among these three patterns. Therefore, a corpus can suggest the frequency of grammatical patterns which is another factor that textbook writers and teachers should also consider.

Sinclair (1990) began to apply corpus data to grammar teaching in the *Collins COBUILD Grammar of English* since corpora can provide a new perspective on traditional grammatical description, such as frequency and collocation/colligation patterns of language. Flowerdew (2012) indicates an example of corpus-based ELT textbooks, i.e. “*Touchstone*” series produced by McCarthy, McCarten and Sandiford (2005), in which corpus findings from the Cambridge National Corpus are included in the books to present the authenticity of language patterns to learners.

Figure 3.1 *Extract from Touchstone Student Book 3* (McCarthy, McCarten & Sandiford, 2005, p.7)



Figure 3.2 *Extract from Touchstone Student Book 3* (McCarthy, McCarten & Sandiford, 2005, p.23)



Figures 3.1 and 3.2 provide learners with useful facts of frequency and actual use of the language in the natural context; the additional information shown in the box can be called *corpus factoids* (Flowerdew, 2012).

2.5.2 Direct applications

As mentioned by Römer (2008), we can also apply corpora to teaching directly by combining a teaching approach called *data-driven learning* (DDL) into the English language teaching.

2.5.2.1 Data-driven language learning (DDL)

(1) Definition of DDL

Data-driven language learning (DDL) was initially introduced by Tim Johns in the 1980s. DDL approach is an inductive learning strategy designed to provide learners with direct access to the authentic data so that they can formulate their own language patterns and rules (Johns, 1991). However, DDL is different from other inductive approaches in terms of learning procedure in which data will lead learners to the discovery of language patterns in which teachers are not aware of the results at the beginning (Johns, 1991). Teachers can choose either presenting the prepared concordance lines to learners or directly providing them with corpus access to search for data by themselves (Chambers, 2010). Learners can perform as both *language learners* and *language researchers* at the same time (Cheng, 2010).

(2) DDL and SLA theory

One of most significant Second Language Acquisition (SLA) theories that is linked with DDL is Computer Assisted Language Learning (CALL), where the computer is used as a tool for investigating language to promote learner autonomy (Sripicharn, 2002). Corpus-driven data is probably related to *comprehensible input* of Krashen (1988), one of the theories of SLA, if the data were simplified to suit learners' proficiency (cited in Sripicharn 2002). As mentioned above, grammar and lexis do not occur in isolation, hence, DDL is the approach that integrates these two components (Chambers, 2010). Schmitdt's (1990) *Noticing Hypothesis* also plays an important role in DDL approach when learners are able to notice the grammatical pattern, transforming input to intake. In terms of grammar teaching, noticing hypothesis can be called *Grammatical Consciousness-Raising*

(GCR). In DDL approach, KWIC concordances perform as GCR in order to raise learners' attention to the target items because KWIC concordances can make learners identify the repeated co-occurring patterns easily (Sripicharn, 2002).

(3) Advantages of DDL in grammar teaching

There are many advantages of implementing DDL into the classroom. First, corpus data provides authenticity and frequency to learners. Biber and Conrad (2010) suggested that grammar textbooks and teachers should include most frequent words in each specific category in the teaching process; on the other hand, less frequent words that students rarely use in reality are less useful. For example, material writers can place an emphasis on the 12 most common lexical verbs that occur more than 1,000 times per million words in LSWE Corpus in their writing, including mentioning which contexts have a higher frequency in use, such as in the contexts of conversation or written newspaper. The most common verbs are *say, get, go, know, think, see, make, come, take, want, give and mean* (Biber et al., 1999, as cited in Biber & Conrad, 2010). It is essential for learners to know the most common words that are used by the native speakers in order to understand the language in natural context and be able to communicate with the native speakers. Second, learners can use a corpus as another resource to compare their own language production with the real language of native speakers, for example, to check errors of writing (Gilquin & Granger, 2010). In terms of authenticity, Chingchit (2008) found that five Thai English teachers out of ten agreed that authentic texts are more effective than the simplified versions in the textbooks in the long term because they provide students with the opportunity to practice the real language for communicating with a native speaker.

Moreover, a corpus offers a useful resource for learners to develop their own learning process to acquire both implicit knowledge, learning without awareness, and explicit knowledge, learning with awareness (Cheng, 2010). Johns (1997) proposed the idea that “every student a Sherlock Holmes”, which means the role of students in the DDL approach is more like a researcher or a detective who discovers and solves language problems by themselves. Thus, this approach keeps learners participating actively in the learning process and creates learner autonomy (as cited in Gilquin & Granger, 2010) A corpus-based grammar also adopts the ideas of

task-based and communicative activities by allowing learners to work in group or do a project. Learners will have the opportunity to investigate through particular language patterns by themselves and develop their grammar analysis skills (Hughes, 2010).

DDL approach, hence, introduces a new style of “grammatical consciousness raising” (Rutherford, 1987, as cited in Johns, 1991) to grammar learning by encouraging learners to rely on their own ability in exploring the authentic language and obtaining the general results by themselves.

Not only students, but non-native teachers also gain some benefits from corpora because data from corpora can give them a clearer insight of the language structure used by native speakers (Mair, 2002, as cited in Flowerdew, 2012).

(4) Applying DDL in the EFL classroom

Before applying DDL into the classroom, teachers may consider the proficiency of learners as the first priority and then design whether the activities would be “teacher-led end”, in which tasks in the class are controlled and prepared by teachers in advance, for example, cloze tests and fill-in exercises, or “learner-led end”, in which learners have more freedom in discovering the language during the learning process (Gilquin & Granger, 2010). Hunston (2002) viewed that beginning learners should learn through teacher-led activities whereas *discovery learning* or learner-led learning is more suitable for advanced learners (as cited in Gilquin & Granger, 2010). Gilquin and Granger (2010) proposed that some activities should be conducted in the class by presenting concordance lines ranked in alphabetical order to learners and guiding them to identify the repetition of the occurrences of target items or group particular similar language patterns with the reasonable conclusion. This is similar to Sripicharn’s suggestion (2010) that teachers should evaluate students’ background knowledge about corpora, including experiences, attitudes, and general information, in order to make sure that all students have almost the same experiences concerning using corpora. He also suggested some survey techniques which can be done at the beginning of the class either in the form of oral discussion or written survey, for example, questionnaires, checklists or quizzes, so that teachers can make a judgement on how to start introducing DDL approach to students.

The role of teachers is that of a facilitator of the learning process by preparing learners to manipulate a corpus and draw a conclusion from a corpus data as most effectively as possible (Chambers, 2010). In order to teach learners through corpora, EFL teachers should be equipped with *linguistic knowledge* (i.e. content knowledge), *pedagogic knowledge* (i.e. classroom strategies for teaching and encouraging students to analyse corpus data) and *content-specific teaching knowledge* (i.e. the applications of pedagogic knowledge) as the teachers should be able to motivate the students to get through concordance lines given by using signposting and guiding questions to raise students' awareness (Flowerdew, 2012). Hence, teachers also are considered as one of the important factors in terms of increasing the effectiveness of DDL in the classroom.

The study of Lin and Lee (2015) reflected positive attitudes towards using DDL for teaching grammar. In particular, DDL can transform the behaviour of students to be *active learners*, whereas students appeared to be passive learners in a grammar translation method (GTM) classroom. Moreover, DDL can create the student-centred atmosphere where they actively participated in the activities; on the other hand, the centre of the GTM class was a teacher rather than students. Some teachers said that DDL can improve the students' long term retention as well because it motivates students to learn better and enhances their interest in learning. Although the teachers who participated in this study reported that DDL increased their workloads and time for preparing the lesson, they found it challenging and worthwhile.

For beginning learners, teachers should use *scaffolding techniques* to help learners deal with large quantities of corpus data by selecting short and salient concordance lines to make them manageable for learners (Sripicharn, 2010). Kirschner, Sweller and Clark (2006) suggested that paper-based materials for DDL serve as a more appropriate tool to encourage beginning learners who have less experiences and background knowledge to discover language patterns, rather than *immediate hand-on concordancing* (as cited in Boulton, 2010). According to Boulton's (2010) study, DDL paper-based materials can help lower level learners to deal with grammatical items if the materials are prepared appropriately although teachers are not the expert in corpus linguistics.

Lastly, students should learn how to interpret corpus results appropriately in order to generalise the language patterns properly. Some research reported problems that occurred from learners' interpretation are over-generalisation of limited data (Sripicharn, 2003, as cited in Sripicharn, 2010), students' insufficient ability to draw a proper conclusion from the data (Kennedy & Miceli, 2001, as cited in Sripicharn, 2010) and difficulties in analysing word lists and concordance lines (Braun, 2007, as cited in Sripicharn, 2010). In order to cope with such problems, corpus interpreting skills are needed for inexperienced users, for example, making the data easy to be noticed to enhance *learners' awareness* in analysing data by circling or underlining context clues for them (Sripicharn, 2010). However, learners should be aware of some of the limitations of a corpus data in that it may not represent all aspects of language patterns, so they could over-generalise the rules. Sripicharn (2010) recommended learners to use hedging words or phrases, such as *seem to, is likely to, is typically or commonly to* to avoid making a strong conclusion when they interpret data.

(6) Limitations of DDL

In English Language Teacher (ELT), there are some limitations that create a gap between corpus-based techniques and classroom teaching. Hughes (2010) mentioned 'syllabus and target level' as a primary factor since DDL approach is not viewed as compatible with form-focused syllabus. Flowerdew (2012) claims that DDL might be more effective with 'field dependent' students who prefer interaction in the classroom rather than instruction. Also, the authentic language provided in a corpus would be too difficult for low proficient learners to interpret the data, whereas those who have higher proficiency levels would find this approach challenging. Moreover, due to the fact that most teachers in ELT classrooms are not native speakers, Hughes (2010) argued that they might not feel confident enough to work on corpora and teach students by using such an approach. Applying corpora in the classroom may increase teachers' workloads because it needs time and effort to prepare such materials (Jones & Waller, 2015). The 'cultural distance' of non-native students who have never been to English-speaking countries or met native speakers before is another factor that makes DDL impossible in ELT classroom since learners are not familiar with authentic data (Hughes, 2010).

2.6 Related previous studies

Boulton (2010) conducted research in “Data-driven learning: Taking the computer out of the equation”, to ensure that paper-based DDL materials have immediate benefits for lower level learners to cope with grammatical problems. In the study, two teaching styles were compared between using dictionary-based materials and paper-based DDL materials. Pretests, posttests and questionnaires were collected. The participants were second-year non-native students who never experienced DDL before. Their English proficiency was in the lower end of the intermediate scales based on TOEIC mean scores. The fifteen language items in this study were selected from the frequent problematic mistakes found in students’ writing, which focuses on grammar. Students’ grammatical mistakes reflected the non-success of traditional teaching. Language items 1-5 were taught through a traditional method with using a dictionary, whereas items 6-10 were taught through DDL with corpus data from BYU-BNC for half of the students. On the other hand, the rest of students were taught in the reversed situation. All the participants were taught by four regular teachers without prior knowledge of DDL but who received 1-hr DDL training session. Students took the pretest in Week 1, and the posttest in Week 3 to evaluate medium-term recall and questionnaires were used to report on their impressions of teaching methods. The test results showed that both treatments helped increase the posttest scores of students, but DDL treatments were significantly more effective than traditional treatments. According to questionnaire results, it can be concluded that most students (58 out of 71) preferred to continue using DDL rather than the dictionary. They expressed their opinions on DDL as the most useful method for the contexts and “concrete examples” that highlight usage and grammar. Also, they thought that corpus data represented “practical English”, “frequent usage” and “language of today”. This positive result of this study suggested that paper-based materials, prepared in advance by teachers, are *tangible* and suitable for low-proficiency students to manage and consult at a later day.

Yepes and Krishnamurthy (2010) examined the effectiveness of both corpus-based and corpus-driven approaches by using the Aston Corpus Network (ACORN) to teach Spanish grammar to two groups of participants who had different proficiency levels. The beginning learners (GC1) were taught by a corpus-based

approach, whereas the advanced learners (GC2) were taught by a corpus-driven approach. The researcher found that learners had a positive attitude towards teaching grammar through corpus since they found that this approach was useful for them in the execution of future tasks. Hence, using corpora in a language classroom should be promoted.

Yunus and Awab (2012) carried out a study aimed to investigate the effects of using paper-based corpus materials and an online DDL approach on promoting the knowledge of forms and meanings of collocations of prepositions of 40 law undergraduates in Malaysia. The students were grouped into the experimental group (n=20), which was taught via DDL approach in the forms of both paper-based and online materials, and the control group (n=20), which was taught by the Conventional approach (CA) following the syllabus-based module. The pretest and posttest used to collect the data was selected from the most problematic mistakes found in students' writing in the previous course. The findings showed that the DDL group's posttest scores in the sentence completion task, error-identification and correction task, and semantic function task were significantly higher than the CA group's. Thus, DDL approach was more effective than the CA approach in collocation of preposition learning of Malaysian students of the law faculty due to the benefit of DDL that provided the large powerful sources to learners so that they can notice the patterns effectively. The results of the study also supported the claim that grammar and lexis cannot be separated in order to understand the meanings. The researchers suggested that further investigation should be conducted with less advanced learners and using paper-based DDL materials since there seem to be very few studies dealing with these matters.

Smart (2014) conducted a study on "the role of guided induction in paper-based data-driven learning" by comparing performances of three groups of participants which were DDL group (guided inductive treatment using paper-based materials), DCI group (Deductive treatment using Corpus-informed Instruction) and TGI group (Traditional Grammar Instruction). A pretest was administered to all participants to evaluate their knowledge of passive voice. Then they would complete an immediate post-test with the same test tasks, followed by a delayed post-test two weeks later. The participants were L2 learners with different L1s in advanced

grammar classes. The finding showed that there was a statistically significant increase of mean scores from pretest to posttest in the DDL group and the gains were still maintained into the delayed posttest. In contrast, DCI and TGI groups did not yield the same results. The reason might be due to the nature of the DDL classroom that led students to participate in the activities actively. The research, therefore, suggested that paper-based DDL can be a “valuable resource” for language teachers.

Huang (2014) studied the effects of paper-based DDL on the acquisition of lexico-grammatical patterns in L2 writing with 40 third-year Chinese students majoring in English. The proficiency level of participants was upper-intermediate based on the Oxford English Placement Test. Two groups of participants, which were an experimental group (paper-based DDL) and a control group (dictionary consultation), were asked to take three writing tests including a pretest, a posttest, and a delayed posttest. The accuracy and complexity of the writing test were evaluated within each group. Huang found that the experimental group produced fewer errors than the control group in the immediate posttest. In terms of syntactic variation, the experimental group was able to produce more variety of NP patterns, adjectives, premodifiers, and grammatical structures than the control groups. As a result, DDL activities were helpful for students for acquiring collocations and grammatical patterns, and memorising the usage of target words in the long term.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 Participants

The researcher used convenience sampling to recruit the participants from Grade 4 EFL students in an Intensive English Programme (IEP) at a private school in Thailand because the researcher has been teaching English at this school for 4 years and gained access to the participants. Grade 4 students in this school were classified into 5 sections ranked from the lowest to the highest performances, according to their overall grades of every subject. Due to the fact that the participants were non-native elementary students, the researcher conducted this study with the highest performance section as students at low-proficiency levels might encounter some difficulties in interpreting corpus data (Flowerdew, 2012). In the class, there were 50 students whose L1 language background was Thai. They have been studying English as a second language for almost 4 years, and had a mean age of 10.

In order to ensure that all the participants had the same level of English proficiency, the adapted paper-based Cambridge English Placement Test for Young Learners was distributed to them (see appendix A). The scores of the placement test for the young learners correspond to the Pre-A1 to B1 levels of the Common European Framework of Reference for Languages (CEFR), an international standard for describing language ability. However, the researcher was aware of the possibility and the ability to generalise the results of this study to the majority of Thai students, therefore, only participants who were rated as A2 level learners were included in the study. According to the CEFR levels, the A2 students are able to deal with simple, straightforward information and begin to express themselves in familiar contexts, therefore, it could be the standard level for young learners to begin learning through DDL. According to the test results, there were 30 participants out of 50 participants rated as A2 level and had a mean score of 37. Before conducting the research, the consent forms were given to the parents of the participants in order to give the permission for their children to participate in the research study, and the researcher was allowed to conduct this study with them (Appendix F).

Table 1 *The Cambridge English Placement Test corresponding to CEFR level*

| Score | CEFR level |
|--------|----------------------------|
| 90-100 | C2 (Mastery) |
| 75-89 | C1 (Effective proficiency) |
| 60-74 | B2 (Vantage) |
| 40-59 | B1 (Threshold) |
| 20-39 | A2 (Waystage) |
| 10-19 | A1 (Breakthrough) |
| 0-9 | Pre-A1 |

3.2 Data collection and instrument

This study was a one-group pre-test post-test design. Cambridge English Placement Test for Young Learners were given to all the participants (50 learners) from the highest performance section to evaluate their English proficiency and was used as a tool to recruit 30 learners, who were ranked as A2 level learners, to be the participants of this study.

Prior to the instructional period, the participants were asked to do a short pre-test of their grammar knowledge related to prepositions of place and time in English. The participants were taught once a week in an extra activity class, which did not affect their regular learning, for 50 minutes. The study was conducted over a six-week period as shown in Table 2 (see the example of a lesson plan in Appendix B).

Table 2 *Periods of instruction*

| Weeks | Teaching |
|-------|---|
| 1 | Preposition of time <i>during</i> (Sheet I) |
| 2 | Preposition of place and time <i>between</i> (Sheet II) |
| 3 | Preposition of place and time <i>between</i> (Sheet II) |
| 4 | The differences of <i>during</i> and <i>between</i> as the prepositions of time |
| 5 | Preposition of place <i>among</i> (Sheet III) |
| 6 | The differences of <i>between</i> and <i>among</i> as the prepositions of place |

Immediately following the six weeks of instruction, the participants completed a post-test with the same test tasks as the pre-test, which consisted of 15 items of gap-filling, 15 items of grammaticality judgement test (GJT), and 5 items of sentence building, as described in Table 3 (Appendix C). The total score was 40. The scores of the two tests were evaluated by the researcher. Lastly, the Thai version of attitude questionnaires, which was adapted from Phoocharoensil (2012), was distributed to all participants to investigate their attitudes towards studying through DDL approach. The questionnaire consisted of 12 statements of a 5-point Likert scale, from 1=strongly disagree to 5=strongly agree, one open-ended question about their problems in learning and 3 items of closed questions (Appendix E). In order to triangulate the data, only 10 participants who had the outstanding development after learning English prepositions through DDL, for example, those who had very high post-test scores, but low pre-test scores, were interviewed in their L1 Thai for exact information.

Table 3 *Test task description*

| Task description | Task measurement | Numbers of items |
|---|---|-------------------------|
| <i>Gap-filling</i> : Participants choose the correct prepositions to fill in the given space. | Knowledge of meaning | 15 |
| <i>GJT</i> : Participants judge the given sentences as to whether each sentence is grammatically correct or not, and provide the correct answer if it is incorrect. | Knowledge of meaning and use Grammatical awareness | 15 |
| <i>Sentence building</i> : Participants describe the pictures by using the learnt prepositions. | Knowledge of meaning and form Knowledge of use | 5 |

3.3 Data analysis

In order to analyse the data, the mean scores of pre-test and post-test were compared by using paired-samples t-test via IBM SPSS software to examine the effectiveness of using DDL in teaching English prepositions. In terms of participants' attitudes towards the DDL method, the results from the 5-point Likert scales were analysed by comparing the frequency. Moreover, all of their answers in the open-ended questions, as well as the interview responses, were translated into English by the researcher.

3.4 Instructional treatment

Grammar units to teach in this study were prepositions of place and prepositions of time. Prepositions are one of the grammar areas that A2 levels students should know. In addition, prepositions are considered as difficult and problematic matters for learners at every level of proficiency (Cowan, 2008). Therefore, the researcher selected the problematic prepositions found in the placement test, which were *during*, *among* and *between*, because the participants probably had never studied these prepositions before. Also, these prepositions have similar meanings in Thai, which can cause confusion to Thai EFL learners. Hence, providing learners with these prepositions in different environments through concordance lines can shed some light on different usages of such prepositions.

Data-driven grammar teaching materials were developed using language samples from Graded Readers Corpus in both written and spoken languages available in The Compleat Lexical Tutor (<http://www.lextutor.ca>), developed by Tom Cobb in 2015; an online computer programme for developing data-driven language learning. This website provides concordances collected from various sources including classic mid-size corpora, e.g. Brown, COCA and BNC, some web culls, plus corpora developed by Lextutor users and students. Moreover, it has compiled a collection of texts from Graded Readers and ESL textbooks which are suitable for English learners. It is a very convenient software programme that enables teachers to create teaching materials by selecting and extracting the desirable concordance lines. This website is consulted by 1500+ learners, teachers, and researchers worldwide and is cited

regularly in research publications and presentations at major conferences (Cobb, 2015).

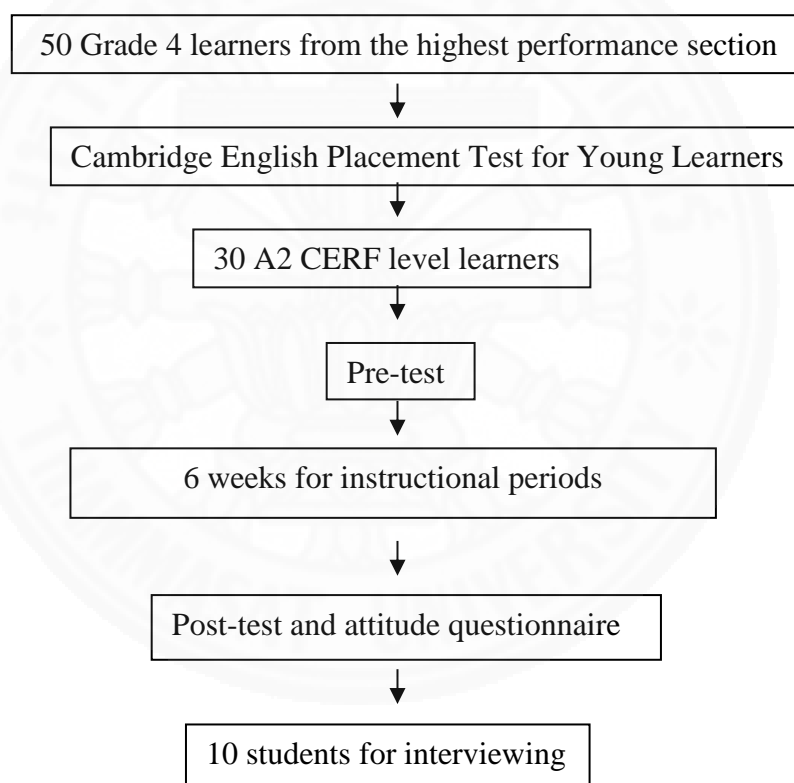
Figure 4 *Selected concordance lines of among found in Graded Readers Corpus extracted from <http://www.lextutor.ca> (Cobb, 2015)*

result of his visit was a new readiness AMONG the ladies to believe in strange h [B4_cranford]
 ked round and saw the tall, thin rector AMONG his schoolboys. His kind face was [B4_cranford]
 se looked sad and useless. We could see AMONG the jungle plants an old chair in [P4_mosquito_coast]
 baths before dinner, the more sensitive AMONG them felt fortunate to have been a [B6_decline_fall]
 above her she could see bright blue sky AMONG the leaves and branches. Around he [C4_nothing_truth]
 is in the shop. You don't mind sleeping AMONG the coffins? But it doesn't matter [P4_oliver_twist]
 uss here. But we believe that somewhere AMONG all the possible arrangements of l [B4_songs_earth]
 d of snakes. They came to an open space AMONG the trees, and stopped to wait for [C4_nothing_truth]
 lightning filled, the sky. Word spread AMONG his soldiers and the local people: [P4_alexander_great]
 arriage windows. The house itself stood AMONG fields, and there was an old garde [B4_cranford]
 lle Ghost. He wrote many other stories, AMONG them The Picture of Dorian Gray (1 [P4_dorian_gray]
 sy and too tired to argue. All the talk AMONG her friends was about the field tr [C4_nothing_truth]
 me.' The two wolves ran here and there AMONG the herd, and soon the cows and bu [B2_jungle_book]
 nderstood that the Red Death was there, AMONG them. It had come like a thief in [B3_tales_poe]
 there was a mist, Madog ap Rhys walked AMONG the hills in his long dark cloak, [B5_ghost_stories]
 Elinor!' p. 30 Marianne enjoyed walking AMONG the trees, thinking sadly of Willo [P3_sense_sensibility]
 rees round it. Marianne enjoyed walking AMONG these trees, thinking sadly of Wil [P3_sense_sensibility]
 people say that his spirit still walks AMONG the hills, searching for lost trav [B5_ghost_stories]
 and noticed that the Emperor's son was AMONG them. He was not surprised. He had [P4_the_gladiator]

In order to make DDL materials manageable for beginning EFL learners, only concordance lines that were appropriate for participants' level to interpret were selected by the researcher who has been teaching them for four years. The selected concordance lines contained only words and sentence structures that the participants should be familiar with, because if the concordance lines consist of too many unfamiliar words and complex grammatical structures, the participants might encounter difficulties in analysing the given data, and this could result in wrong generalisation (Braun, 2007, as cited in Sripicharn, 2010). The DDL tasks in the class were “teacher-led end” which were controlled and prepared by the researcher in advance (Gilquin & Granger, 2010) due to the English proficiency and culture of the learners. Furthermore, they need a teacher to guide them through the tasks since this approach was new for them and to prevent the participants' overgeneralisation (Sripicharn, 2010); therefore, the researcher was there in the class explaining the task, directions and questions provided in the paper-based DDL materials. The concordance lines were printed and presented to them in the KWIC format to make the data easier for learners to analyse. All of the paper-based concordance lines were extracted by using “Compleat Lexical Tutor” online software (Cobb, 2015), as shown in Figure 4. The researcher decided to use paper-based materials because all the

participants are young non-native learners. This way, these materials were more convenient and easier for learners to explore the target language patterns (Boulton, 2010). Moreover, the facilities for computer-based learning in this school were limited, which means not all participants could be exposed to it. The participants worked in small groups, analysed the data and reported what they found in the samples through the provided worksheet. They were then asked to share their findings to the class and complete the writing task, where they would apply their generalised rules; examples of DDL activities are provided in Appendix D.

Figure 5 *Flowchart of the research study*



CHAPTER 4

RESULTS

This chapter reports and discusses the results of the study based on the data obtained from pre-and post-test scores and attitude questionnaires of 30 participants, and 10 semi-structured interviews. The results are divided into two major parts. The first part is the analysis of participants' pre- and post-test scores to determine the effectiveness of DDL method. The second part reveals participants' attitudes towards learning preposition through DDL based on the completed questionnaires and interviews.

4.1 The effectiveness of DDL in English preposition learning

The participants' grammatical knowledge was evaluated by using pre-and post-tests which consisted of gap-filling, grammaticality judgement test and sentence building. The mean scores of two tests were compared to determine the effectiveness of using DDL in the class to teach English prepositions, i.e. *among*, *during* and *between*, by using paired sample T-Test statistics. It was found that the mean scores of the participants increased from 13.50 ($SD = 2.59$) in the pretest to 26.28 ($SD = 6.55$) in the posttest, on average, by approximately 13 points.

Table 4.1 Paired sample T-Test of overall mean scores

| | Paired Differences | | | | | t | df | Sig. (2-tailed) |
|-----------------------|--------------------|-------------------|-----------------------|---|-------|--------|----|--------------------|
| | Mean | Std. Deviation | Std. Error Mean | 95% Confidence Interval of the Difference | | | | |
| | | | | Lower | Upper | | | |
| Posttest - Pretest | 12.78 | 6.14 | 1.12 | 10.49 | 15.07 | 11.414 | 29 | .000 |

There is strong evidence that students' grammatical knowledge has been enhanced, which suggests that this DDL method seems to significantly improve overall scores of the participants. As shown in Table 4.1, the p value, which was $<.001$ was less than $.05$, so this implied there was a statistically significant difference in their mean scores which dramatically increased from the pre-test to the post-test after using DDL activities at a significant level of 0.5. As a result, there was only a

small probability of this result occurring by chance. Therefore, the first hypothesis, i.e. young Thai EFL learners will gain significantly higher post-test scores than post-test scores after studying English prepositions through DDL, is confirmed.

As mentioned earlier, there were three test tasks which have different task measurements. Thus, in order to investigate how DDL affected the participants' grammatical knowledge in different angles, the mean scores of the pretest and the posttest in each task were separately compared by using paired sample T-Test analysis.

4.1.1 Gap-filling task

Table 4.2 Paired sample T-Test of gap-filling task

| | Paired Differences | | | | | t | df | Sig. (2-tailed) |
|-----------------------|--------------------|-------------------|-----------------------|---|-------|-------|----|--------------------|
| | Mean | Std. Deviation | Std. Error Mean | 95% Confidence Interval of the Difference | | | | |
| | | | | Lower | Upper | | | |
| Posttest - Pretest | 4.27 | 3.427 | .63 | 2.99 | 5.54 | 6.826 | 29 | .000 |

The first task of the test was gap-filling, which was used to measure their knowledge of *among*, *during* and *between*. According to Table 4.2, there was a statistically significant increase ($p < 0.001$) in their mean scores from the pretest, 4.60, to the posttest, 8.87, on average, by approximately 4 points. Hence, the results show that the participants apparently had an improvement in learning the English prepositions which were *among*, *during* and *between*.

4.1.2 Grammaticality judgement task

Additionally, the mean scores on the second task, grammaticality judgement task, were analysed individually to evaluate the participants' knowledge of grammar and their ability to judge the grammaticality of the sentences. In this case, the p value was $<.001$, as shown in Table 4.3, which indicated that there was a statistically significant difference in the mean scores of the GJT which increased from

6.77 ($SD = 1.70$) in the pretest to 10.18 ($SD = 2.57$) in the posttest, on average, by approximately 3 points.

Table 4.3 *Paired sample T-Test of GJT task*

| | Paired Differences | | | | | t | df | Sig. (2-tailed) |
|-----------------------|--------------------|-------------------|-----------------------|---|-------|-------|----|--------------------|
| | Mean | Std. Deviation | Std. Error Mean | 95% Confidence Interval of the Difference | | | | |
| | | | | Lower | Upper | | | |
| Posttest - Pretest | 3.42 | 2.98 | .544 | 2.30 | 4.53 | 6.274 | 29 | .000 |

The higher mean scores which appeared in this task revealed that the majority of the participants developed their grammatical consciousness-raising because they were able to identify the incorrect uses of the underlined prepositions and supply the correct answers.

4.1.3 Sentence building task

Table 4.4 *Paired sample T-Test of sentence building task*

| | Paired Differences | | | | | t | df | Sig. (2-tailed) |
|-----------------------|--------------------|-------------------|-----------------------|---|-------|--------|----|--------------------|
| | Mean | Std. Deviation | Std. Error Mean | 95% Confidence Interval of the Difference | | | | |
| | | | | Lower | Upper | | | |
| Posttest - Pretest | 5.20 | 2.25 | .41 | 4.36 | 6.04 | 12.659 | 29 | .000 |

The results of the sentence building task interestingly indicated that most of the participants gained their knowledge of the target prepositions and applied them to the appropriate context where they could describe the provided pictures by using the target prepositions correctly. As shown in Table 4.4, the p value which was $<.001$, so this revealed that there was a statistically significant difference in their mean scores which increased from 2.20 ($SD = 1.48$) in the pretest to 7.40 ($SD = 2.32$) in the posttest, on average, by approximately 5 points.

In addition, among the three test tasks, it was found that this part presents the most outstanding outcomes of the participants because the students' ability to describe the pictures by using the correct prepositions was better, as all of them earned higher scores.

Moreover, the researcher compared the complexity of the sentences that the participants produced from the pretest and the posttest. It was found that some of them produced more complicated and natural sentences which could be found in the concordance lines provided in the DDL activities. As Table 4.5 shows, there are some examples of the participants' sentences in the third task, which were selected from the participants who had the outstanding development in applying the prepositions in the real context.

Table 4.5 *Examples of sentences produced by the participants in the tests*

| Participants | Item No. | Pretest | Posttest |
|--------------|----------|--|---|
| S2 | 1 | The house is <i>between</i> the four tree. | The home is <i>among</i> the trees. |
| S3 | 2 | <i>During</i> the boy is sleep on the bed. | The brother is sleeping on the bed <i>during</i> the night. |
| S4 | 4 | The he is <i>among</i> the sea. | The boys and girls go to the beach <i>during</i> the morning. |
| S5 | 2 | He is sleep <i>among</i> the bed. | The man is sleeping <i>during</i> the night. |
| S7 | 1 | The trees are <i>among</i> the house. | The house is <i>among</i> the trees. |
| S10 | 4 | The family <i>among</i> beach. | My family is go to the beach <i>between</i> 9.00 and 10.00. |
| S12 | 5 | The girl <i>between</i> the flower. | Pam is <i>between</i> the flowers. |
| S20 | 2 | He sleep <i>among</i> bed. | I sleeping <i>between</i> 9.00 pm - 10.00 pm. |
| S21 | 2 | My father <i>during</i> on the bed. | My brother is sleep <i>during</i> the night. |
| S25 | 5 | A princess <i>between</i> a flower. | The princess standing <i>between</i> the flowers. |
| S26 | 4 | The boy is among the girl. | Family is walking to the beach <i>during</i> the day. |

As Table 4.5 shows, the sentences produced by the participants in the posttest were more grammatical and meaningful, which were clearly different from the sentences in the pretest¹. For example, S12 and S25 used *between* followed by plural nouns, *the flowers*, instead of a singular noun which was ungrammatical in the pretest. In addition, most of the participants can show their progress in learning English prepositions by using them to describe the given pictures properly (e.g. S2, S4, S7, and S20). Moreover, some students (e.g. S3, S5, S21 and S26) can produce more complicated sentences and reflect their grammatical knowledge about prepositions learnt in the class. Hence, it suggested that, at least, the participants knew the functions and meanings of the learnt prepositions which were *among*, *during* and *between*, and that was reflected through the produced sentences in the posttest.

4.2 Students' attitudes towards DDL method

The questionnaire focused on three aspects of the students' attitudes towards paper-based DDL activities which were 1) the satisfaction of students in learning through DDL, 2) reasons why the participants liked DDL method, and 3) difficulties in learning.

In terms of students' satisfaction, as shown in Table 5.1, the majority of the students (46.7%) evaluated the DDL activities as fun, interesting and challenging. Moreover, almost half of the participants thought that DDL activities were not difficult for them to learn, while some students (16.7%) found the activities difficult. Apparently, the participants in general (70%) enjoyed discovering the language patterns and grammar rules by themselves. It was interestingly found that the majority of the students (56.7%) wanted to learn other English lessons through a DDL method in the future.

¹ However, the participants still produced some mistakes on verb forms and tenses because they probably thought in their L1 language when they produced English sentences. Also, the grammar lesson in this study focused on English prepositions, therefore students, non-native young learners, could not notice verb forms and tenses provided in the concordance lines due to their limited background knowledge.

Table 5.1 *Students' attitudes towards DDL method (n=30)*

| Category | Statements | Responses | | | | |
|--------------|---|-----------|-------|-------|-------|-------|
| | | SA | A | N | D | SD |
| Satisfaction | 1) I find learning through DDL is fun and not boring. | 46.7% | 30.0% | 23.3% | 0% | 0% |
| | 2) I think that DDL method is more challenging than other traditional methods. | 50.0% | 36.7% | 6.7% | 6.7% | 0% |
| | 3) Learning through DDL is difficult for me. | 6.7% | 10.0% | 36.7% | 23.3% | 23.3% |
| | 6) I like to discover the language pattern by myself. | 26.7% | 43.3% | 23.3% | 6.7% | 0% |
| | 12) I want to study other English lessons through DDL method in the future. | 56.7% | 20.0% | 20.0% | 0% | 3.3% |
| Content | 4) Learning through DDL makes me understand the lesson better. | 50.0% | 46.7% | 3.3% | 0% | 0% |
| | 5) When I learn grammar, I prefer teacher-centred method to learner-centred method like DDL. | 23.3% | 26.7% | 23.3% | 10.0% | 16.7% |
| | 7) I can retain what I've learnt in the long term after studying through DDL method. | 30.0% | 40.0% | 23.3% | 6.7% | 0% |
| | 8) I was encouraged to actively think, express my idea and speak English during DDL activities. | 36.7% | 40.0% | 20.0% | 3.3% | 0% |
| | 9) I completely understand how to use <i>during</i> , <i>among</i> and <i>between</i> by learning through DDL method. | 53.3% | 26.7% | 20.0% | 0% | 0% |
| | 10) I think that I obtain more vocabulary knowledge and new sentence structures from studying the concordance lines. | 33.3% | 46.7% | 20.0% | 0% | 0% |
| | 11) In the DDL class, I think that I understood the lesson better when the teacher used scaffolding techniques. | 83.3% | 10.0% | 6.7% | 0% | 0% |

SA= Strongly agree, A= Agree, N= Neither agree or disagree, D= Disagree, SD= Strongly disagree

Moreover, the results, according to Table 5.1, revealed that most of the participants evidently had a positive attitude towards the DDL method as it is considered to be a useful resource to learn English grammar. In particular, almost all of the participants (96.7%) thought that their grammatical knowledge was enhanced by learning through the DDL method as it helped them understand the lesson and be able to apply *among*, *during* and *between* in the real context, especially when the teacher used scaffolding techniques to guide them throughout the activities (83.3%). Most of the participants also stated that they can retain what they have learnt in the long term. Another benefit of learning grammar inductively through DDL activities is that the majority of the students (70%) seemingly acquired more vocabulary knowledge and new sentence structures from investigating through the provided concordance lines. From the survey results, it was evident that the DDL activity has shaped most of the students (76.7%) to be an active learner as they were encouraged to actively think, express their ideas and speak English throughout the class. However, half of the participants still preferred prefer teacher-centred method (i.e. traditional method) to learner-centred method like DDL.

The second part of the survey, which involves open-ended questions, revealed that the majority of the participants (24 students) did not encounter any difficulties in learning through the DDL method. By contrast, 6 students stated their problems in learning through DDL, as presented in Table 5.2 below.

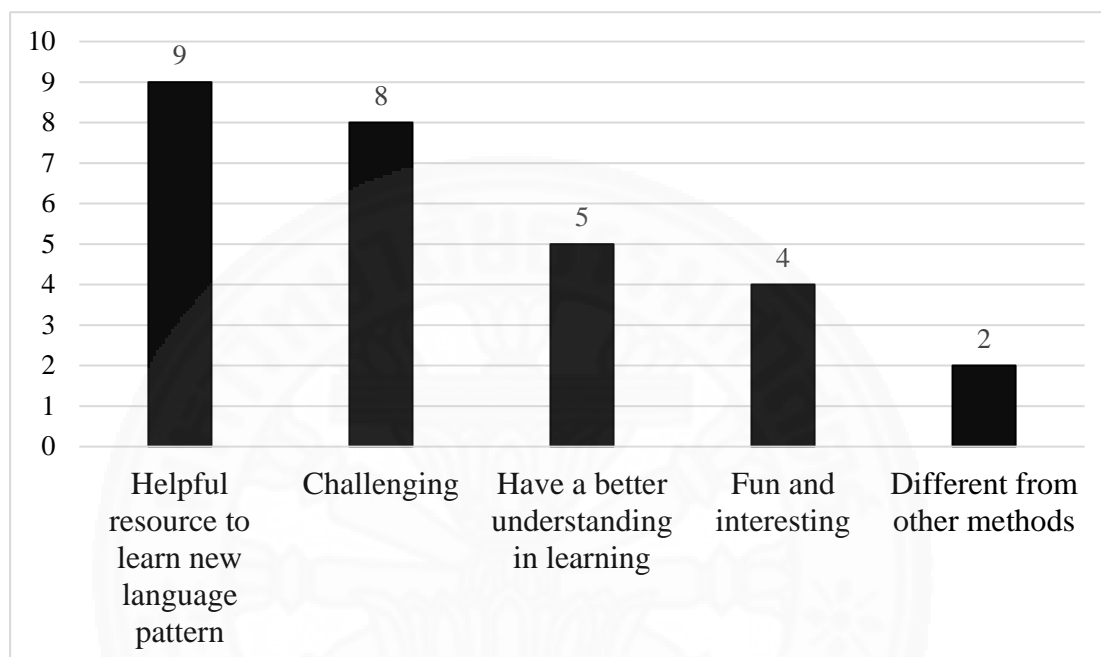
Table 5.2 *Students' difficulties in learning through DDL*

| Participants | Problems |
|---------------------|--|
| S7 and S20 | Do not understand the meanings of some unfamiliar words. |
| S8 | Does not understand the meaning of some contexts because of the limited background knowledge. |
| S12 | Still confused with the uses of <i>among</i> , <i>during</i> , and <i>between</i> in some particular contexts. |
| S15 | Does not feel confident in using the presented prepositions. |
| S19 | Cannot read some of the concordance lines that contain unfamiliar words and structures. |

As shown in Table 5.2, the main problem occurring during the DDL activities was probably due to the difficulty in interpreting the provided corpus data

when the participants who have limited English exposure and proficiency encountered some unfamiliar words. Consequently, a couple of the participants were still confused over the uses of these prepositions and were not confident to use them properly.

Figure 6 *The different reasons indicating why the participants liked DDL method (n=28)*



Regarding the students' satisfaction towards DDL method, almost all of the participants, i.e. 28 students, enjoyed learning the English prepositions through studying the paper-based concordance lines in the DDL activities. On the other hand, only 2 students did not like this kind of teaching method because they thought that the DDL method was more difficult than the previous methods they had experienced. Moreover, the students who were pleased with this new teaching method chose only one of the best reasons why they enjoyed learning with this method.

As shown in Figure 6, the most important reason is that the participants (n=9) considered the provided concordance lines as a helpful resource to discover new vocabulary and structures. The second important reason is that they found the DDL method was challenging for them (n=8). Five participants thought that this method helped enhance their understanding in learning grammar, and 4 students viewed it as a fun and interesting activity. Lastly, there are 2 students who liked this method because it is different from other teaching methods.

In order to triangulate the results, the researcher also interviewed 10 students whose grammatical knowledge was clearly enhanced. By interviewing these students, the researcher found that they were pleased with the DDL method, which is consistent with the questionnaire results. The interview responses can be grouped into two categories, which are students' satisfaction towards DDL and their opinions towards the content of DDL.

4.2.1 Students' satisfaction towards DDL

All of the interviewees said that they gained the knowledge of prepositions after studying through DDL. One of them said that "before I studied, I felt confused, but after 6 weeks, I obtained new vocabulary and language structure". Also, they found studying through reading the concordance lines helped improve their English skills, including reading, writing, and speaking skills, as one of them stated that "concordance lines are useful because they provided me with natural language patterns which can enhance my speaking skill". Moreover, all of them liked to study through DDL for several reasons. Three of them said that they liked this method because it was fun. On the other hand, the rest of them were pleased with this method because of the usefulness of the DDL activities as a good resource to learn English. Lastly, all of them wanted to study other English grammar through DDL in the future. One of them interestingly replied that "I want to study through DDL again because it is different from other methods".

4.2.2 Content of DDL

All of the interviewees answered that they could notice the differences between DDL and other grammar teaching methods. Eight students said that this method was more challenging and fun whereas the rest of them said that this method played a part in changing their learner roles to be more active, for example, one of them said that "I became more active in the class because I can participate in the activities when I study through DDL activities". Furthermore, all of them said that learning through DDL was not difficult. Four of them found that the provided materials were easy to follow and help them understand the lesson better. All of them also valued the help of the teacher, who was the researcher of the study, as another factor that decreased the level of difficulty of DDL. For instance, one of them said

that “the teacher usually helped guide us when we struggled with the unfamiliar words found in the concordance lines”.

According to the questionnaire results and interview responses, the second hypothesis, i.e. young Thai EFL learners will have positive attitudes towards DDL approach in learning English prepositions, is affirmative.



CHAPTER 5

DISCUSSION AND CONCLUSIONS

The present study investigates the effectiveness of data-driven learning (DDL) method in developing Thai grade 4 students in learning English prepositions, and examines the attitudes of participants towards learning English prepositions through a DDL approach. Therefore, the results of the study were discussed and interpreted to answer the research questions. Lastly, the classroom implication, limitation of the study and recommendations for further study are also provided in this chapter.

5.1 Research question I: *Are there any significant differences in the scores of pre-test and post-test after DDL is introduced in English preposition teaching?*

According to the results in the previous chapter, there was a statistically significant difference in their mean scores ($p < 0.001$), which increased from the pre-test to the post-test after DDL activities were introduced to the students. Therefore, the first hypothesis, i.e. young Thai EFL learners will gain significantly higher post-test scores than post-test scores after studying English prepositions through DDL, is supported. This study has shown that paper-based DDL plays a crucial role as a useful tool in enhancing the students' grammatical knowledge, which is broadly consistent with other previous studies (Boulton, 2010; Huang, 2014; Kirschner, Sweller & Clark, 2006; Smart, 2014; Yunus & Awab, 2012). Interestingly, this study suggested that it is possible for young learners to investigate data through a corpus if it is prepared by teachers in advance by simplifying and selecting the appropriate concordance lines to suit the learners' proficiency.

In particular, the mean scores of posttest are higher than those of the pretest in every part, especially the sentence building task as the difference in mean scores between pretest and posttest of this task was the highest when compared to other tasks. The results of the third task concur with other studies that reveal the development of the students in producing more meaningful and grammatical sentences with a variety of complexities because they were exposed to the examples of language patterns through analysing the concordance lines provided in the paper-

based DDL materials (Chingchit, 2008; Huang, 2014; Jones & Waller, 2015; Leech, 1986). Thus, it could be inferred that the corpus data from the concordance lines probably performed as comprehensible inputs that provide good ready-made samples for the participants to use in their writing, and resulted in the improvement in the participants' writing production.

Furthermore, the higher mean score in the posttest of the second task, which is the grammaticality judgement task (GJT), yields an interesting result that even though the participants are beginning learners, they were apparently able to judge the grammaticality of the sentences, which is inconsistent with the reports of Rahimy and Moradkhani (2012) and Ellis (1991) that this task could be ambiguous and not suitable for beginning learners. Hence, it can be summarised that learning through DDL activities helps develop their grammatical consciousness-raising (GCR) since they were encouraged to rely on their ability in noticing and identifying the target grammatical patterns, which are the prepositions, in the concordance lines (Rutherford, 1987; Schmitdt, 1990; Sripicharn, 2002; Tan & Nor Izzati, 2015; Yunus & Awab, 2012). Moreover, the KWIC concordance lines were used in the paper-based DDL materials, and the node word or the target language item was presented in the centre of the page, in order to raise learners' awareness of the target item and help them identify the co-occurring patterns surrounding the target preposition more easily (Sripicharn, 2002).

By looking at the vocabulary and context surrounding the node word, the participants could formulate their own grammar rule about the types of nouns that can be used with the target prepositions, for example, they could be aware of the differences between *during* and *between* in that *during* usually occurred with a non-specific time period, whereas *between* is usually followed by two specific periods of time that are separated from each other by the conjunction *and*. Due to the learning process of DDL, the participants probably developed their grammatical awareness in detecting the ungrammatical items and providing correct answers (Cheng, 2010). It can be concluded from this that learning through DDL provides the learners with the opportunity to investigate through particular language patterns by themselves and develop their grammar analysis skills (Hughes, 2010). Thus, the results of GJT task show that after studying through DDL, the students could develop both receptive

knowledge and productive knowledge, and suggest that GJT task could be an ideal measurement in order to evaluate the students' grammatical knowledge studied through DDL.

In addition, the teacher is another key factor that helps trigger the success of DDL as the teacher should perform as a facilitator (Chambers, 2010). Teachers' preparation in designing the paper-based DDL materials and selecting the appropriate concordance lines to suit the students' proficiency level is evidently the most essential process, especially in this case when the students are young non-native students whose English proficiency level is low or intermediate. This teacher preparation makes the lessons manageable for the students to analyse the concordance lines effectively and draw a proper conclusion from a corpus data (Boulton, 2010; Chambers, 2010; Gilquin & Granger, 2010; Hunston, 2002; Sripicharn, 2010).

Moreover, the guiding questions provided in the paper-based DDL materials could lead the learners to draw a conclusion from the data more easily because the guiding questions help narrow the scope in searching for the language patterns and provide focus and coherence during the learning the process (Flowerdew, 2012). In order to check the students' understanding of the lessons, the appropriate number of exercises should also be provided.

Apart from designing the material, the classroom strategies for teaching and encouraging students to analyse corpus data, such as evaluating students' backgrounds and scaffolding techniques, e.g. signposting and guiding questions, are also important as help from the teacher can lead the students to discover and generalise the target grammar rules successfully. (Flowerdew, 2012; Sripicharn, 2010; Ur, 2009).

5.2 Research question II: *What are young Thai EFL learners' attitudes towards DDL approach?*

The questionnaire and interview results of this study show that the students have positive attitudes towards learning through a DDL method as they found it fun, interesting and challenging (Flowerdew, 2012). Consequently, the majority of them wanted to study other English lessons through DDL in the future as they considered this method as a helpful resource for learning new grammatical

knowledge, which is conforming to other related studies (Boulton, 2010; Yepes & Krishnamurthy, 2010). Moreover, it was found that DDL seems to help students retain their knowledge in the long term (Lin & Lee, 2015; Smart, 2014). An interesting result found in this study is that the DDL activities play a crucial role in transforming the students to be active learners (Lin & Lee, 2015; Smart, 2014) as their learners' role is changed to be more like a researcher or a detective (John, 1997). An inductive teaching method like DDL encourages the students to participate in the activities actively as they could discover and solve language problems by themselves and discuss with the classmates, which can develop their grammatical knowledge and productive skills (i.e. speaking and writing skills) at the same time. Consequently, learning through DDL creates learner autonomy (Gilquin & Granger, 2010). Thus, when students can engage in the activity and be exposed to the language directly, they tend to pay more attention to the lesson because the interesting activity can reduce the boredom in the class and enhance the positive learning atmosphere (Ur, 2009). As a result, their performance in using the language and grammatical knowledge significantly improved.

However, it is worth noting that some of the participants did not enjoy learning through DDL because of the difficulties in interpreting the data. As Flowerdew (2012) suggested, DDL might be more compatible with field-dependent students because they prefer to interact with others in the class, whereas field-independent students might think that this method is too difficult for them. Some of the participants encountered difficulties while they were analysing the data. Due to the fact that they had limited English background, it was difficult for them to understand some concordance lines that contained unfamiliar words because the corpus data reflect the authentic language patterns used among the native speakers (Hughes, 2010). Therefore, in order to help these students, the teacher should put more effort in helping them get through the data by using the scaffolding techniques. Furthermore, teachers should design the paper-based DDL materials appropriately by simplifying corpus data to suit the learners' language proficiency, as the interview results reveal that they found the activities easier when there was some assistance from the teacher.

In conclusion, the findings of this study suggest that paper-based DDL method is beneficial for young learners in learning English prepositions, i.e. *among*, *during* and *between*, and the attitude of most of the learners towards this method is positive. As mentioned in the literature review, there are few studies which researched on using DDL with young learners, therefore, the results of this present study possibly bridge the research gap and indicate that young learners or those who have limited English exposure are able to learn English grammar through paper-based DDL method with the help of the teacher in selecting appropriate concordance lines to suit learners' proficiency and motivating them to analyse the data throughout the activities.

5.3 Pedagogical implications

These findings can contribute considerably to the development of teaching methods among Thai teachers. Most Thai teachers usually teach grammar by using the traditional method and relying on only the textbooks which are considered the causes of the failure of Thai students in learning English grammar (Chingchit, 2008; Choomthong, 2014). Therefore, teaching grammar by using corpora, or *Data-Driven Learning* (DDL), could be an example of inductive teaching methods that Thai English teachers could implement in their class, as it is shown in this study that DDL significantly enhances students' grammatical knowledge and motivates them to focus more on the lesson because they found it interesting and fun. This study also yields an instructive result that DDL can be applied with young EFL learners which could be an encouraging teaching method for EFL/ESL teachers.

5.4 Limitations of the study

The study has some limitations that should be addressed in future research. The first limitation is the low number of participants. Due to the research design, which is a one group pre-test post-test, it might be difficult to ensure that the results of this study could be widely generalised to the entire population. The second limitation is the authenticity of corpus data in this study, which utilised Graded Readers Corpus. Since the Graded Readers contain simplified language that is suitable for young non-native learners to understand, so the learners might not have enough

exposure to the authentic language. Another limitation is that there was no inter-rater to cross-check the analysed data.

5.5 Recommendations for further studies

Due to the limitations of this study, future studies should be replicated with other EFL participants and proficiency levels in order to increase the generalisability of the results. Moreover, future studies should be conducted with experimental and control groups to compare the effectiveness of other grammar teaching methods with a paper-based DDL. It is also worth exploring the effectiveness of the paper-based DDL in teaching prepositions with more complexity, for example, analysing the collocations of verbs and prepositions. To increase the authenticity of the DDL teaching materials, future studies should select the concordance lines from other corpora, for example, British National Corpus (BNC) and Corpus of Contemporary American English (COCA), however, the corpus data should be appropriate for the proficiency level of the learners. Finally, future studies should investigate the long-term effects of paper-based DDL in learning grammar and use an inter-rater to determine validity or accuracy of the results of the study.

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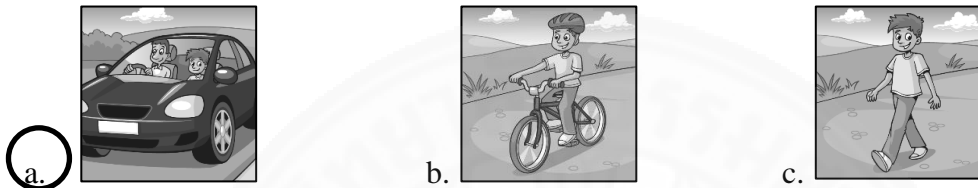


APPENDICES

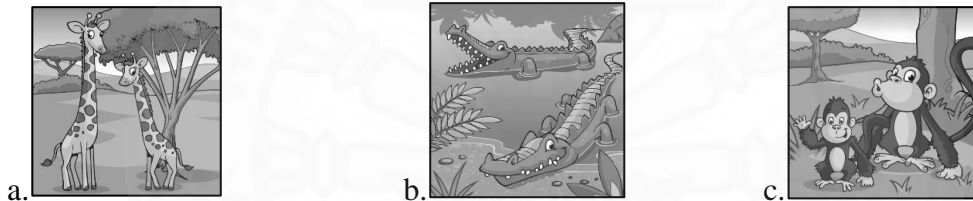
APPENDIX A
CAMBRIDGE ENGLISH PLACEMENT TEST FOR YOUNG
LEARNERS
LISTENING

PART1: Listen and look at the example. Listen and choose the correct answer. You will hear this twice.

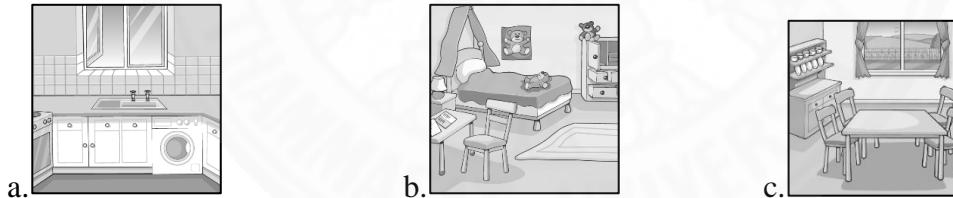
Example: How is Bill going to his grandpa's house?



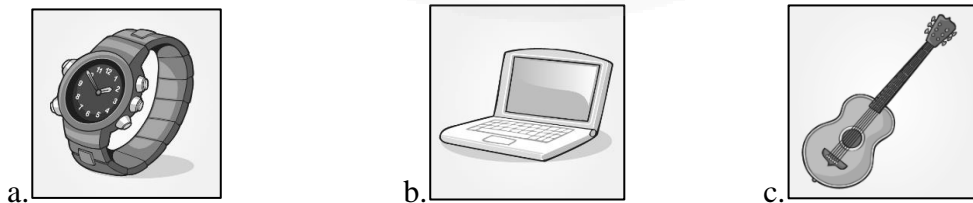
1. What are the new animals at the zoo?



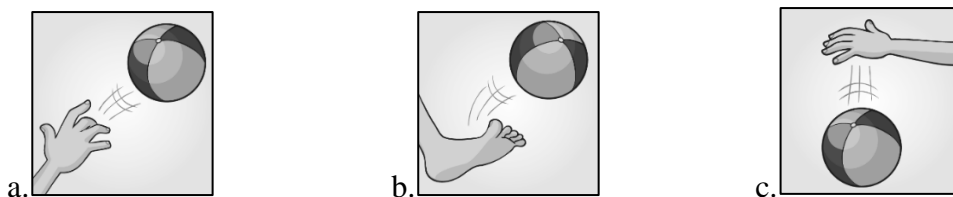
2. Where's Lucy's book?



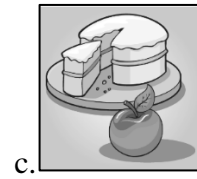
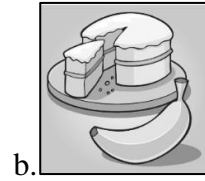
3. What does Tom want for his birthday?



4. What can Tony do with the ball in the house?



5. What cake can they make today?



PART2: Listen and look at the example. Listen and choose the correct answer. You will

| | | | |
|--------|----------|-----------|----------|
| Monday | Tuesday | Wednesday | Thursday |
| Friday | Saturday | Sunday | |

hear this twice.

Example:



Friday



1.



2.



3.



4.



5.

PART3: Listen and look at the examples. Listen and write the correct answer. You will hear this twice.

Which school does the boy go to?

__ Hall __ Street School

- How many football shirts does the boy want? 12
1. How many small shirts does the boy want? _____
 2. What's the teacher's name? Mr. _____
 3. Which class is the boy in? _____
 4. What's the boy's name? _____
 5. Where does the boy live? _____ Street

PART4: Listen and look at the examples. Listen and write the correct answer.

You will hear this twice.

Example: Likes drinking: carrot juice

1. Colour of rabbit: _____
2. Bought where: pet shop next to _____
3. Name of rabbit: _____
4. Lives in: Mr Mat's _____
5. Likes eating: Mr Mat's _____

READING AND WRITING

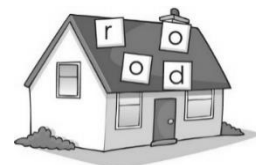
PART1: Look at the example. Look at the pictures and the letters. Write the word.

Example:







sofa










3.  


4.  

5.  

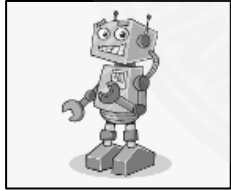
PART2: Read and choose the correct answer.

1. 


This is a face.

2. 


This is a lorry.

3. 

This is a robot.

4. 

This is a burger.

5. 

This is a shop.

PART3: Look at the example. Read and choose the correct answer.

Example: Fred, whose dog is that?

- a. There it is. **b.** He's mine. c. That's new.

1. Is he a new pet?
 - a. Yes, he is.
 - b. Yes, he was.
 - c. Yes, he can.
2. Who gave him to you?
 - a. My uncle was.
 - b. My grandparents.
 - c. I gave it to my mum.
3. Where does he sleep?
 - a. Every night.
 - b. He sleeps a lot.
 - c. In the garden.
4. What's his name?
 - a. My name's Fred.
 - b. I like May.
 - c. It's Pat.
5. Would you like to come to the park with us?
 - a. Yes, I'd like that.
 - b. Yes, I like her.
 - c. Yes, it's like a park.
6. Can I hold the dog?
 - a. I held it last week.
 - b. OK, here you are.
 - c. So do I.

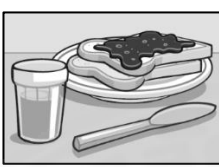
PART4: Look at the example. Read and choose the correct answers.

Butterflies

Butterflies (**is, am, are**) beautiful insects. People enjoy looking at butterflies because of the lovely colours on (**their, every, this**) wings. In busy cities, it is difficult (**by, of, for**) butterflies to find a nice place to live, but we can plant flowers that butterflies (**likes, liking, like**) in our parks and gardens. At night, or (**during, until, past**) bad weather, butterflies hide under leaves or sleep in small spaces (**before, between, down**) rocks.

Some butterflies (**only, once, ever**) eat one kind of plant. This is called a 'food plant'. A butterfly's colours are (**often, next, soon**) the same as its food plant, so it can hide well. This is important (**or, because, but**) animals like birds, bats and spiders eat butterflies.

You can see (**each, another, many**) different kinds of butterflies at a butterfly farm. The butterfly farmer looks after butterflies there to show them to other people, and to sell them. Some butterflies are big but the (**smallest, smaller, small**) butterfly in the world looks like a fly.

PART5: Look at the example. Read, choose and write the correct answer.**day****strong****playground****ran****surprised****breakfast****toothache****drank****opened**

My name's Daisy. Yesterday was my first _____ in a new class at school. In the morning I got up quickly and went to the kitchen to have my _____.

My aunt Lucy was there with my mother. 'Can I come with you this morning?' my aunt said. 'Yes!' I said. I _____ a glass of orange juice and then went to my bedroom to get dressed. Then I picked up my new school books, and my aunt and I went out of the house.

She came with me to the _____ and then I said, 'Goodbye. See you!' and I _____ to my new classroom to see my friends. A teacher _____ the door and came in. My aunt was with her! 'Good morning, children!' she said. 'This is Mrs Weeks, your new teacher. She's Daisy's aunt.' I laughed. I was very _____ !

PART6: Look at the example. Read and write the correct answers. You can write 1 word.

Dear David,

Tomorrow is my birthday. _____ shall I do? I'd like to go to a restaurant _____ you and my other friends. We could have pizza and ice-

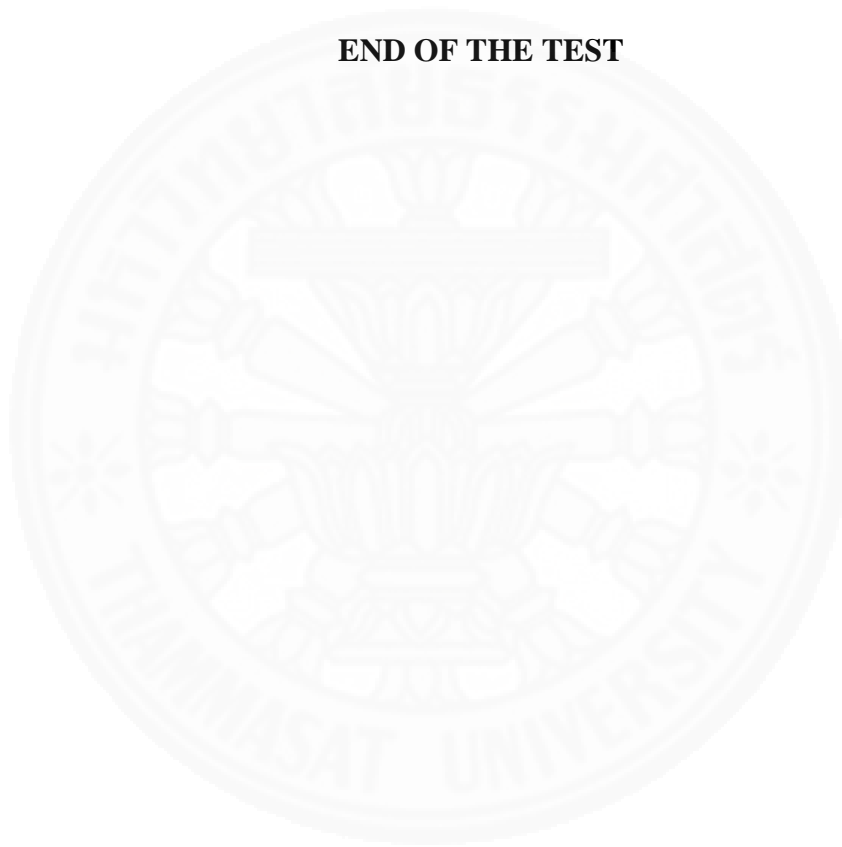
cream, but Mum and Dad say it's more fun to go to the park and _____
football.

I think going to a restaurant is better _____ going to the park but I
_____ everyone to enjoy my birthday.

So I have decided to ask all my friends to choose. Then I can tell Mum and
Dad. What _____ you like to do tomorrow?

Please email back quickly. Thanks!

END OF THE TEST



APPENDIX B
LESSON PLAN WEEK 2

Time: 09:20 a.m. to 10:30 a.m. (50 minutes)

Class: English

Learners: Grade 4

Class size: 30 students

Language Focus: Grammar

Topic: Prepositions of time *during* and *between*

Objectives: Students will be able to:

1. distinguish the different usages of prepositions of time between *during* and *between* by investigating through paper-based DDL method.
2. describe the pictures by using the correct prepositions of time.
3. analyse the concordance lines properly
4. generalise the target grammatical patterns of prepositions of time.

Anticipated problems: Problem with timing might occur when students participate in the pair work and group work discussion

Solutions: In order to remedy the problem, I have planned to assign specific time for each task.

| Time | Stage | Procedures | Material | Interaction | Purpose |
|---------|---------|--|----------|-------------------------|---|
| 5 mins. | Warm up | <p>1. T reviews the previous lesson on preposition <i>during</i>.</p> <p>2. T reviews some useful vocabulary about time that commonly appear in the concordance lines.</p> | | <p>T-Ss</p> <p>T-Ss</p> | <p>To introduce SS to the topic and to prepare SS to be familiar with vocabulary that they will encounter in the concordance lines.</p> |

| | | | | | |
|---------|------------------------------------|--|--------------------------------------|-----------------------------|--|
| 30 mins | Demonstration/ group discussion | <p>3. T provides paper-based DDL materials to Ss and groups them into small groups of 5.</p> <p>4. T also shows the material on the projector screen to make Ss understand the structure of material and teach them how to analyse the data by using scaffolding techniques.</p> <p>5. Ss discuss with their classmates in groups following the directions in the task and generate the particular patterns of prepositions of time (i.e. <i>during</i> and <i>between</i>) found in the data.</p> <p>6. T asks some volunteers from each group to write their generated rules on the whiteboard and share their findings to the class.</p> <p>7. T goes over the answers, gives the feedback on students'</p> | Paper-based DDL material: Week II | T-Ss T-Ss S-S | <p>To teach Ss how to interpret the data from the concordance lines</p> <p>To encourage collaborative learning environment and learner autonomy</p> <p>To check Ss' understanding of the learnt lesson and to confirm their generalisation</p> |
|---------|------------------------------------|--|--------------------------------------|-----------------------------|--|

| | | | | | |
|------------|--------------------------|--|--|------|--------------------------------------|
| | | errors. | | | |
| 10 mins | Grammar practice | 8. T asks Ss to do the practice exercises provided in the material (i.e. gap-filling and pictures describing types). | Paper-based DDL material: Week II | T-Ss | To have SS work on grammatical rules |
| 5 mins | Conclusion/ questions | 10. T summarises the usage of <i>during</i> and <i>between</i> as the prepositions of time to Ss. | PPT slides | T-Ss | To sum up |

APPENDIX C

PRETEST AND POSTTEST

Part I: Put in *during*, *between*, or *among*

1. He stood _____ all his friends in the room and felt very happy.
2. The thief sat _____ two big police officers..
3. We'll be there _____ 4 and 4.30.
4. We had enough firewood to keep us warm _____ the winter.
5. I drink black coffee again and again _____ the day.
6. The teacher was sitting _____ all children.
7. A war is going on _____ India and Pakistan.
8. I stayed at home _____ the summer.
9. What is the difference _____ these two animals?
10. She found her ring _____ the clothes in her drawer.
11. This house was built _____ 2005 and 2010 by our company.
12. There'll be heavy rain and maybe some snow _____ the morning.
13. At the concert, I was _____ many people.
14. There is something _____ the wheels of the car.
15. _____ all of us, Thomas is the tallest.

Part II: Some of these sentences are correct, and some have an incorrect preposition.

If the sentence is correct, put a tick (✓). If it is incorrect, put a cross (X) and write the correct preposition between *during*, *between* and *among* in the space.

Ex. I was hit among my eyes. between

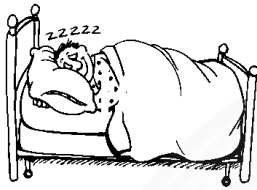
1. We came to a small house among the trees. _____
2. Lisa is the most popular between all girls at the school. _____

3. The ball passed between his legs. _____
4. There was a lot of noise between the night. _____
5. Mrs Newton came into our classroom during a maths test. _____
6. There was a fight between the two brothers. _____
7. During all of many animals at the zoo, the chimpanzees are my favourite. _____
8. Somewhere among all those trees, there's a pine tree. _____
9. Between strawberry and chocolate ice cream, which would you choose? _____
10. I will be at the office among eight and six. _____
11. Children must attend school among the ages of 5 and 16. _____
12. I fell asleep between the movie. _____
13. Jane shared her birthday cake among the whole class. _____
14. You'll see the hospital between the church and the library. _____
15. We met a lot of interesting people during our holidays. _____

Part III: Use one of these prepositions; *during*, *between*, or *among* to describe the pictures.



1.



2.



3.



4.



5.

APPENDIX D
PAPER-BASED DDL MATERIALS

Sheet I

Prepositions: *During*

Instruction: Spot the preposition and identify the followed noun phrases.

| | |
|-----|---|
| 1. | I drink black coffee again and again during the day; I drink strange and unus [P3_how_to_be_alien] |
| 2. | again. It continued for fifty years and during this time there were twenty-five [P3_the_romans] |
| 3. | She finished the last half of the book during the holidays, and soon after she [B2_agatha_schristie] |
| 4. | n't appear. I went to sleep easily. But during the night I suddenly woke up and [P3_dangerous_game] |
| 5. | ered going to public parks in the city, during the three years she had worked as [B6_american_crime] |
| 6. | for drugs. Many people left the city during these years. Look for the Red Hat [P3_new_york] |
| 7. | me New Yorkers like to leave "the City" during the summer and play on "the Islan [P3_new_york] |
| 8. | very little food, and many of them died during the first winter. Then Pocahontas [B3_the_usa] |
| 9. | I still haven't done the classic album yet, " he said recently during a long late- night conversation in the cozy music room |
| 10. | asked him to meet her in the Square. They met the next day, and during a long walk she told him about her father's invitation. He |
| 11. | Unfortunately, he was badly hurt during a storm at sea, and when the ship reached an Eastern port, |
| 12. | I wanted it to be a machine for telling stories,' said Gaiman during a visit to London last week from his new home in America. |
| 13. | If anyone cheats during an examination they must leave the school permanently. |
| 14. | The two policemen entered the classroom during her English lesson. One was fat, his stomach tight in his |
| 15. | Ireland, however, there'll be heavy rain and maybe some snow during the afternoon, and on the hills temperatures will drop to |
| 16. | He opened his door several times during the evening, and stared out, but he saw and heard nothing |
| 17. | He was dressed in the shorts he seemed to live in during the hot weather. |
| 18. | on the edge of the Shadow Land, nothing can live during the winter months. But there is a better reason. Come - I |

1.1 From the above concordance lines, what preposition is highlighted?

1.2. List the nouns/ noun phrases which are used after the preposition.

| | | |
|--|--|--|
| | | |
| | | |
| | | |
| | | |
| | | |

1.3. What is the type of these following nouns?

1.4. This is the preposition of _____.

1.5. In which context you can use this preposition?

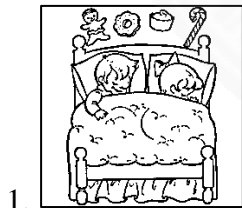
Exercise

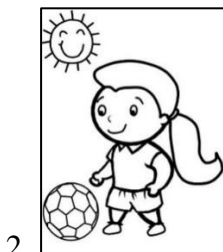
Instruction: Describe the picture by using *during*

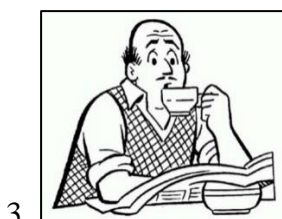
Example



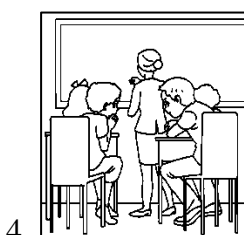
I was working in my office *during* this morning.







3.



4.



5.

Sheet II

Prepositions: *Between*

Instruction: Spot the preposition and identify the followed noun phrases.

| | |
|-----|--|
| 19. | high tea. Today most people have a meal between 12 and 2 p.m. In the past, this [P3_british_life] |
| 20. | the garden, and there were trees between the pool and the house. Nutty re [B3_who_sir] |
| 21. | and there were little holes in the wall between the stones. I could put my feet [B2_dracula] |
| 22. | very carefully. I studied the days between 12 and 25 January, as this was t [C3_how_met_myself] |
| 23. | ost beautiful in the city. It was built between 1928 and 1930 by the car company [P3_new_york] |
| 24. | sisters. Priscilla was taken to sit between her father and the Squire. Nancy [B4_silas_marner] |
| 25. | report that the woman had probably died between 7.00 and 9.30 on the morning of [B5_jericho_dead] |
| 26. | toothpaste, and stood up. But Anna was between him and the door She gave the to [B1_white_death] |
| 27. | I put my ear against the wall between my room and Sandra's room, hopin [C4_matter_of_chance] |
| 28. | orse. 'If you asked me, I'd say he died between 7.15 and 7.45.' The doctor smile [B5_jericho_dead] |
| 29. | Is that Mr Duncan?' I thought. I looked between the trees and saw the sea. 'It's |

| | |
|-----|---|
| | [B2_deadman_island] |
| 30. | 'And there are six doors between my room and the locked door!' I [B2_deadman_island] |
| 31. | ,it could be any day now No I'm saying that it's, it's between now and Christmas Wednesdays, |
| 32. | sit in between them two old men and do it. And I said I'm not sitting between two men. Right. |
| 33. | the song. There were many differences between Paul and John. Paul was very int [P3_the_beatles] |
| 34. | My friend saw a yellow dog running between people's legs, and said with a l [B4_lord_jim] |
| 35. | ow, sir, can you tell me where you were between 8.00 and 9.00 on the evening of [B5_jericho_dead] |
| 36. | sure of one thing. The love story between Rose and Jack was the most impor [P3_titanic] |
| 37. | t of all the good movies that were made between August 1, 1927 and July 31, 1928 [P3_the_oscars] |
| 38. | still had my army revolver and I hid it between the books in my bookcase, so tha [B6_meteor] |
| 39. | thing. You must stay here in the office between those hours. If you leave the of [P5_sherlock_4stories] |
| 40. | This is a compromise. To drink too much between three o'clock and six o'clock in [P3_how_to_be_alien] |
| 41. | but you see when you get out of here about seven times between half past six and eight o'clock at night |
| 42. | Tomorrow? Thought he was coming Sunday? No, tomorrow. between two and four , cos I've got and do the papers tomorrow |

2.1 From the above concordance lines, what preposition is highlighted?

2.2. List the nouns/ noun phrases that indicate *time*

| | | |
|--|--|--|
| | | |
| | | |
| | | |
| | | |

2.2. List the nouns/ noun phrases that indicate *place*

| | | |
|--|--|--|
| | | |
| | | |
| | | |
| | | |

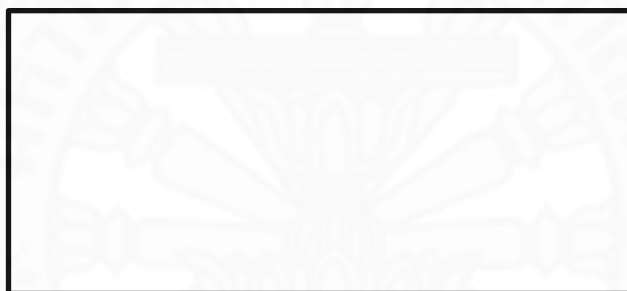
2.3. How many nouns are followed by the preposition?

2.4 What is the conjunction that links between two nouns?

2.5. Write the usage of the preposition

2.6. In which context you can use this preposition?

2.7 Draw the picture to show the position of this preposition



2.8 Go back to the concordance lines of *during*, can you notice the differences between *during* and *between* as the prepositions of time?

| |
|---|
| I drink black coffee again and again during the day; I drink strange and unus [P3_how_to_be_alien] |
| This is a compromise. To drink too much between three o'clock and six o'clock in [P3_how_to_be_alien] |
| t of all the good movies that were made between August 1, 1927 and July 31, 1928 [P3_the_oscars] |
| She finished the last half of the book during her holiday, and soon after she s [B2_agatha_christie] |
| ow, sir, can you tell me where you were between 8.00 and 9.00 on the evening of [B5_jericho_dead] |
| Ma Blackie and the children slept a little during the night, and before sunrise next morning and he used to eat there most evenings during their first summer together. But [C4_summer_comes] |
| but you see when you get out of here about seven times between half past six and eight o'clock at night |
| Tomorrow? Thought he was coming Sunday? No, tomorrow. between two and four , cos I've got and do the papers tomorrow |
| Nearly a million people work here during the day - that's more than the po [P3_british_life] |

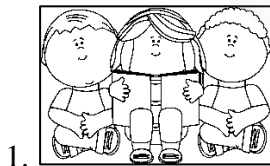
| |
|---|
| high tea. Today most people have a meal between 12 and 2 p.m. In the past, this [P3_british_life] |
| The two policemen entered the classroom during her English lesson. One was fat, his stomach tight in his |
| Ireland, however, there'll be heavy rain and maybe some snow during the afternoon, and on the hills temperatures will drop to |
| very carefully. I studied the days between 12 and 25 January, as this was t [C3_how_met_myself] |
| ost beautiful in the city. It was built between 1928 and 1930 by the car company [P3_new_york] |
| They didn't need to do any more work during the day, but they had to move quickly, before the gold |
| He opened his door several times during the evening, and stared out, but he saw and heard nothing |
| ,it could be any day now No I'm saying that it's, it's between now and Christmas Wednesdays, |

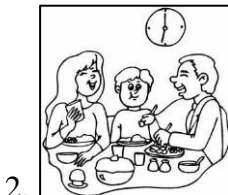
During:

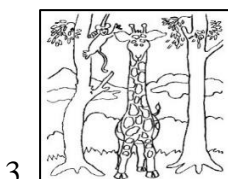
Between:

Exercise

Part1: Describe the picture by using *between*









4.

Part2: Write the correct preposition; *during* or *between*

1. I was in France _____ the summer.
2. I met her _____ my time in London.
3. The office is closed for lunch _____ 12.30 and 1.30.
4. I woke up _____ the night.
5. Please tell me where you were _____ 8.00 and 9.00 on Sunday evening.
6. I studied in York _____ 12 and 25 January.
7. It rained _____ the morning.
8. This car was built _____ 1928 and 1930 by the car company.
9. Today most people have lunch _____ 12 and 2 p.m.
10. No one was allowed to use any written materials _____ the exam.

Sheet III

Prepositions: *Among*

Instruction: Spot the preposition and identify the followed noun phrases.

| | |
|-----|--|
| 43. | I used to think I was popular among the boys, but you know I'm not, an [B6_decline_fall] |
| 44. | down into the ravine. I dropped my bag among the flowers and knelt at the edge [B4_moonspinners] |
| 45. | Pasha and his friends were among the groups of students and workers [P5_dr_zhivago] |
| 46. | there was a mist, Madog ap Rhys walked among the hills in his long dark cloak, [B5_ghost_stories] |
| 47. | The small coloured fish who lived among the rocks swam so close to Joyce th [C4_stay_together] |
| 48. | of human life were some large buildings among the trees. Ahead -of us I saw a bu [B6_meteor] |
| 49. | round it. Marianne enjoyed walking among these trees, thinking sadly of Wil [P3_sense_sensibility] |
| 50. | 'This is the barbecue we had last night.' These are among 45 postcards and pictures that Atlantans Jimmy Allen and John Little |
| 51. | Joyce stood among a group of people. She wasn't saying much and she didn't look |

| | |
|-----|---|
| | happy. |
| 52. | They sang and danced and cried. Nna-nndo and Aku- nna sat quietly among all the noise and the comings and goings. |
| 53. | saying she was not good- looking, she was very popular among her neighbours because she was so cheerful and sensible. |
| 54. | He includes Spanish among his favorite subjects and hopes to get some experience at the school' |
| 55. | and buying cheap wine and single beers at the Walton Food Market among other places. |
| 56. | 'Your bed is in the shop. You don't mind sleeping among the coffins? But it doesn't matter whether you mind or not. |
| 57. | you must be able to escape. 'I hid the tank of petrol among the rubbish behind our boat- house. Just then Father returned. |
| 58. | under the ground hundreds of years ago. There were small white flowers among the tombstones. |
| 59. | As a student he had liked being among happy, friendly, young people. He had enjoyed his science |
| 60. | rcumstances, finding just a plain spade among all the Christmas paper, would be [BNC_write] |
| 61. | Originally most of the loss occurred among farm workers, but now as Chapter 2 [BNC_write] |
| 62. | ere in narrow circumstances. He grew up among poor people, and he has been called [BNC_write] |
| 63. | Tone valley, offer walking and riding among superb beech woods. The Monument t [BNC_write] |

3.1 From the above concordance lines, what preposition is highlighted?

3.2. List the nouns/ noun phrases which are used after the preposition.

| | | |
|--|--|--|
| | | |
| | | |
| | | |
| | | |
| | | |

3.3. What is the type of these following nouns?

3.4. This is the preposition of _____.

3.5. In which context you can use this preposition?

3.6 Draw the picture to show the position of this preposition

3.7 Go back to the concordance lines of *between*, can you notice the differences of *between* and *among* as the prepositions of place?

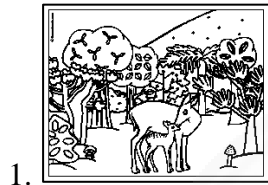
| |
|--|
| I used to think I was popular among the boys, but you know I'm not, an [B6_decline_fall] |
| I put my ear against the wall between my room and Sandra's room, hopin [C4_matter_of_chance] |
| The small coloured fish who lived among the rocks swam so dose to Joyce th [C4_stay_together] |
| round it. Marianne enjoyed walking among these trees, thinking sadly of Wil [P3_sense_sensibility] |
| sit in between them two old men and do it. And I said I'm not sitting between two men. Right. |
| the song. There were many differences between Paul and John. Paul was very int [P3_the_beatles] |
| Joyce stood among a group of people. She wasn't saying much and she didn't look happy. |
| He includes Spanish among his favorite subjects and hopes to get some experience at the school' |
| the garden, and there were trees between the pool and the house. Nutty re [B2_who_sir] |
| and there were little holes in the wall between the stones. I could put my feet [B2_dracula] |
| and buying cheap wine and single beers at the Walton Food Market among other places. |
| still had my army revolver and I hid it between the books in my bookcase, so tha [B6_meteor] |
| rcumstances, finding just a plain spade among all the Christmas paper, would be [BNC_write] |
| Tone valley, offer walking and riding among superb beech woods. The Monument t [BNC_write] |
| Is that Mr Duncan?' I thought. I looked between the trees and saw the sea. 'It's [B2_deadman_island] |
| 'And there are six doors between my room and the locked door!' I [B2_deadman_island] |

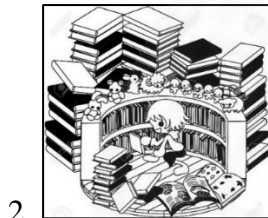
Between: _____

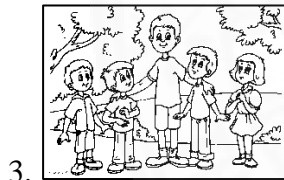
Among:

Exercise

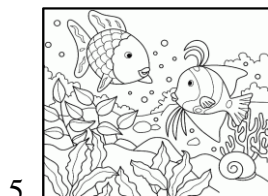
Part1: Describe the picture by using *among*











Part2: Write the correct preposition; *among* or *between*

1. Cambodia is _____ Thailand and Viet Nam.
2. _____ the five of us, none of us like fish.
3. You can only choose _____ the red or blue.

4. I found this paper _____ all the books in the library.
5. On the bus I sat _____ Michael and David.
6. Did you see me? I was standing _____ a group of young students.
7. There was a cyclist _____ the car and the lorry.
8. Thomas is the most popular boy _____ his classmates.
9. There are many subjects which we learn in school. _____ them,
English is my most favourite subject.
10. There was a tower _____ the two hills.



APPENDIX E

แบบสอบถามทัศนคติของผู้เรียนต่อการเรียนด้วยวิธี Data-driven learning (DDL)

คำชี้แจง แบบสอบถามชุดนี้เป็นเป็นส่วนหนึ่งของวิจัยเรื่อง Effectiveness of English Preposition Learning through Data-Driven Learning (DDL) ตามหลักสูตรปริญญาโท สาขาการสอนภาษาอังกฤษเป็นภาษาต่างประเทศ สถาบันภาษา มหาวิทยาลัยธรรมศาสตร์ ดังนั้นจึงขอความร่วมมือจากท่าน กรุณาตอบแบบสอบถามให้สมบูรณ์ ข้อมูลทั้งหมดที่ท่านตอบมาจะเป็นประโยชน์อย่างยิ่งสำหรับงานวิจัยครั้งนี้

ส่วนที่ 1 ข้อมูลทั่วไปของผู้ตอบแบบสอบถาม

1. เพศ: _____ 2. อายุ: _____ ปี
3. นักเรียนระดับชั้น: _____ 4. สัญชาติ: _____

ส่วนที่ 2 ทัศนคติต่อการเรียนภาษาอังกฤษด้วยวิธีการ Data-driven learning (DDL)

คำชี้แจง: กรุณาเลือกข้อที่ตรงกับท่านมากที่สุด

- ระดับ 1 หมายถึง ท่านไม่เห็นด้วยอย่างยิ่งกับข้อความดังกล่าว ระดับ 2 หมายถึง ท่านไม่เห็นด้วยกับข้อความดังกล่าว
ระดับ 3 หมายถึง เฉยๆ หรือ ไม่แน่ใจ ระดับ 4 หมายถึง ท่านเห็นด้วยกับข้อความดังกล่าว
ระดับ 5 หมายถึง ท่านเห็นด้วยอย่างยิ่งกับข้อความดังกล่าว

| ข้อความ | 5 | 4 | 3 | 2 | 1 |
|--|---|---|---|---|---|
| 1. ท่านรู้สึกว่าการเรียนด้วย DDL สนุก และ ไม่น่าเบื่อ | | | | | |
| 2. ท่านรู้สึกว่าการเรียนด้วย DDL ทำความสามรถท่านมากกว่าการเรียนปกติทั่วไป | | | | | |
| 3. ท่านคิดว่า DDL เป็นการเรียนรู้ที่ยาก | | | | | |
| 4. ท่านรู้สึกว่าการเรียนด้วย DDL ทำให้ท่านเข้าใจบทเรียนมากขึ้น | | | | | |
| 5. ท่านชอบที่จะฟังและจดตามครูบนกระดาน มากกว่าการเรียนแบบ DDL ที่ต้องคิดวิเคราะห์ด้วยตัวเอง | | | | | |
| 6. ท่านชอบที่จะค้นพบกฎทางภาษาต่างๆด้วยตนเอง | | | | | |
| 7. การเรียนแบบ DDL ทำให้ท่านสามารถจดจำเนื้อหาได้นานมากขึ้น | | | | | |
| 8. การเรียนแบบ DDL กระตุ้นให้ท่านกล้าแสดงออก กล้าคิด กล้าพูดภาษาอังกฤษมากขึ้น | | | | | |
| 9. การเรียนแบบ DDL ทำให้ท่านเข้าใจการใช้คำบุพบทได้แก่ During, Among และ Between อย่างถ่องแท้ | | | | | |
| 10. ท่านคิดว่าท่านเรียนรู้ คำศัพท์และประโยคใหม่ๆมากขึ้นจากการศึกษา concordance lines | | | | | |

| ข้อความ | 5 | 4 | 3 | 2 | 1 |
|--|---|---|---|---|---|
| 11. ท่านรู้สึกว่าจะเข้าใจเนื้อหามากขึ้น เมื่อมีครูคอยอธิบาย และช่วยนำทางในขณะที่เรียนแบบ DDL | | | | | |
| 12. ท่านอยากเรียนด้วยวิธี DDL ในเนื้อหาใหม่ๆ ในอนาคต | | | | | |

ส่วนที่ 3 ปัญหาและข้อเสนอแนะ

1. ท่านพบปัญหาระหว่างการเรียน Among, During และ Between ผ่านวิธี DDL หรือไม่?

ใช่

ไม่ใช่ (ไม่ต้องทำข้อ 2)

2. ปัญหาที่ท่านพบคือ

3. ท่านชอบการเรียนด้วย DDL หรือไม่?

ใช่

ไม่ใช่ (ไม่ต้องทำข้อ 4)

4. เหตุใดท่านจึงชอบการเรียนด้วย DDL (กรุณาเลือกคำตอบที่ตรงกับท่านมากที่สุด เพียงคำตอบเดียว)

ได้ทดลองเรียนรู้ด้วยตนเอง โดยที่ครูไม่ใช่คนที่คอยอธิบายทุกอย่างให้ฟัง

ทำทายความสามารถ

ได้เรียนรู้คำศัพท์ และประโยคใหม่ๆ เพิ่มเติมจากการอ่าน concordance lines

แตกต่างจากการเรียนในห้องเรียนทั่วไป

สนุกและไม่น่าเบื่อ

ทำให้เข้าใจเนื้อหาได้มากขึ้น

อื่นๆ โปรดระบุ _____

5. ข้อเสนอแนะอื่นๆ

ขอขอบคุณที่ท่านให้ความร่วมมือในการตอบ แบบสอบถามครั้งนี้

APPENDIX E

LEARNERS' ATTITUDES TOWARDS DATA-DRIVEN LEARNING METHOD QUESTIONNAIRE

(Adapted from Phoocharoensil, 2012)

As part of my MA research thesis at Thammasat University, I am conducting a questionnaire that investigates the attitudes of learners towards learning English prepositions through Data-Driven Learning method (DDL). I will appreciate if you could complete the following table.

Part I Respondent's details:

1. Gender: _____ 2. Age _____
3. Education: _____ 4. Nationality: _____

Part II Attitudes of learners towards Data-driven learning (DDL) method

Direction: Please check (/) the box which best describes whether you agree or disagree with each statement using the following scales;

- 5 = Strongly Agree 4 = Agree 3 = Neither agree nor disagree
2 = Disagree 1 = Strongly Disagree

| Statements | 5 | 4 | 3 | 2 | 1 |
|---|---|---|---|---|---|
| 1. I find learning through DDL is fun and not boring. | | | | | |
| 2. I think that DDL method is more challenging than other traditional methods. | | | | | |
| 3. Learning through DDL is difficult for me. | | | | | |
| 4. Learning through DDL makes me understand the lesson better. | | | | | |
| 5. When I learn grammar, I prefer teacher-centred method to learner-centred method like DDL. | | | | | |
| 6. I like to discover the language pattern by myself. | | | | | |
| 7. I can retain what I've learnt in the long term after studying through DDL method. | | | | | |
| 8. I was encouraged to actively think, express my idea and speak English during DDL activities. | | | | | |
| 9. I completely understand how to use <i>During</i> , <i>Among</i> and <i>Between</i> by learning through DDL method. | | | | | |
| 10. I think that I obtain more vocabulary knowledge and | | | | | |

| | | | | | |
|---|--|--|--|--|--|
| new sentence structures from studying the concordance lines. | | | | | |
| 11. In the DDL class, I think that I understand the lesson better when the teacher used scaffolding techniques. | | | | | |
| 12. I want to study other English lessons through DDL method in the future. | | | | | |

Part III Problems and suggestions

1. Did you encounter any problems in learning *Among*, *During* and *Between* through DDL method?

Yes, I did.

No, I didn't (If no, then skip no.2)

2. Please state your problem(s).

3. Do you like studying through DDL method?

Yes, I do.

No, I don't. (If no, then skip no.4)

4. Please choose **only one** best reason why you like DDL method.

It's a good experience to discover the language pattern by myself.

It's challenging.

It's a good resource to learn new vocabulary and structures through reading the concordance lines

It's very different from the traditional classroom.

It's fun and not boring.

It helps me understand the lesson better.

Etc. _____

5. Suggestions and recommendations (Optional)

Thank you very much for your cooperation!

APPENDIX F

ใบยินยอมเข้าร่วมการวิจัย (Consent Form)

หัวข้อวิทยานิพนธ์เรื่อง: Effectiveness of English Preposition Learning through Data-Driven Learning (DDL)

วันที่ให้คำยินยอม วันที่.....เดือน.....พ.ศ.....

1. ก่อนที่จะลงนามในใบยินยอมให้ทำการวิจัยนี้ ข้าพเจ้าได้รับการอธิบายจากผู้วิจัยถึงวัตถุประสงค์ของการวิจัย วิธีการวิจัย และมีความเข้าใจดีแล้ว
2. ผู้วิจัยรับรองว่าจะตอบคำถามต่าง ๆ ที่ข้าพเจ้าสงสัยด้วยความเต็มใจ ไม่ปิดบังซ่อนเร้นจนข้าพเจ้าพอใจ
3. ข้าพเจ้ามีสิทธิ์ที่จะบอกเลิกการเข้าร่วมโครงการวิจัยนี้เมื่อใดก็ได้ และเข้าร่วมโครงการวิจัยนี้โดยสมัครใจ และการบอกเลิกการเข้าร่วมการวิจัยนั้นไม่มีผลต่อคะแนนหรือเกรดของรายวิชา IEP และรายวิชาในหลักสูตรของโรงเรียนที่จะพึงได้รับต่อไปแต่อย่างใด
4. ผู้วิจัยรับรองว่าผลคะแนนจากการทดสอบในงานวิจัยไม่มีผลต่อคะแนนสอบในรายวิชาภาษาอังกฤษ IEP รวมทั้งภาษาอังกฤษพื้นฐาน และภาษาอังกฤษสื่อสาร
5. ผู้วิจัยรับรองว่าจะเก็บข้อมูลเฉพาะเกี่ยวกับตัวข้าพเจ้าเป็นความลับ จะเปิดเผยได้เฉพาะในรูปแบบที่เป็นสรุปผลการวิจัย การเปิดเผยข้อมูลของตัวข้าพเจ้าต่อหน่วยงานต่าง ๆ ที่เกี่ยวข้องต้องได้รับอนุญาตจากข้าพเจ้าแล้วจะกระทำได้เฉพาะกรณีจำเป็นด้วยเหตุผลทางวิชาการเท่านั้น
6. ข้าพเจ้าได้อ่านข้อความข้างต้นแล้ว และมีความเข้าใจดีทุกประการ และได้ลงนามในใบยินยอมนี้ด้วยความเต็มใจ
7. ในกรณีที่ผู้ถูกทดลองยังไม่บรรลุนิติภาวะ จะต้องได้รับการยินยอมจากผู้ปกครองหรือผู้แทน โดยชอบด้วยกฎหมาย

ลงนาม.....ผู้ยินยอม

(.....)

ลงนาม.....ผู้ปกครอง/ผู้แทน โดยชอบด้วยกฎหมาย

(.....)

ลงนาม.....พยาน

(.....)

ลงนาม.....ผู้ทำวิจัย

(นางสาวปณิษา บุญธรรม)

APPENDIX F

PARTICIPANT CONSENT FORM

Thesis title: Effectiveness of English Preposition Learning through Data-Driven Learning (DDL)

Date: _____

1. I have read the Participant Information Sheet and the nature and purpose of the research project has been explained to me. I understand and agree to take part.
2. I understand the purpose of the research project and my involvement in it.
3. I understand that I may withdraw from the research project at any stage and that this will not affect my status now or in the future.
4. I understand that the results of the study do not affect my grades.
5. I understand that while information gained during the study may be published, I will not be identified and my personal results will remain confidential.
6. I understand that I will be audio/video recorded during the interview.
7. I understand that I may contact the researcher if I require further information about the research.

Signed(research participant)

Signed(legal representative)

Signed(witness)

Signed(researcher)

BIOGRAPHY

| | |
|------------------------|---|
| Name | Miss Punyapa Boontam |
| Date of Birth | January 17, 1992 |
| Educational Attainment | 2010-2013: Bachelor of Arts in English |
| Work Position | Intensive English Program Teacher: Senior Professional Level Make A Wit Company Limited |
| Scholarship | 2016: Thesis Funding from Language Institute, Thammasat University |
| Work Experiences | 2014-present: Intensive English Program Teacher Make A Wit Company Limited |

