

CHAPTER ONE

INTRODUCTION

1.0 Background to the Study

This section discusses the background of the present study. It begins first with discussing corpus linguistics and DDL before moving on to exploring the status of English in Malaysia. This sections ends with describing the importance of English in legal education in Malaysia.

1.0.1 Corpus Linguistics and Data-Driven Learning

In this digital era, the role of computer technology as a resource for instruction of foreign language learners is increasing as educators recognise its ability to produce both independent and colloborative learning environments (Kern, 2006). Computer technologies for example the Internet, multimedia, and hypermedia have been introduced in English Language Learning and Teaching (ELLT) to foster language learning process, all of which fall under the category of Computer-Assisted Language Learning (CALL). There have been many CALL software programmes being developed so far that can offer language learners learning grammar, vocabulary, and language functions for instance CD-ROM, Moodle, and Storyboard, to name a few. Meanwhile, in the past two decades, computer technology has also revolutionised the fields of linguistic research (descriptive linguistics) and applied linguistics (language teaching and learning) with the advent of corpus linguistics.

Corpus linguistics is a systematic analysis of the actual (real) production of language (either spoken or written) as opposed to intuition¹. The texts (spoken or written production of language) are assembled to form a large collection of authentic texts called a corpus (plural-corpora) which comes in various sizes. The British National Corpus (BNC), for example, is a balanced synchronic text corpus consisting of more than 100 million words. Language analysis is then performed using a tool called a concordancer where a large number of actual instances of the searched data, called patterns consisting of the Key-Word-in-Context (KWIC) or the nodes and their co-texts will be shown on the screen once typed.

This corpus-based approach to linguistic descriptions has contributed tremendously in extending or deepening knowledge of existing language items, distinguishing close synonyms, detecting patterns of usage, collocation and colligation (phraseology), morphology, lexicography, sociolinguistics, and many others. Most importantly, this approach is very useful for the study of Language for Special Purposes (LSP), looking at register and text type, discourse, and style of specialised languages (domain specific languages) like medicine, law, and biology.

One of the largest contributions of corpus linguistics is in ELLT, particularly in the teaching of English for Specific Purposes (ESP) courses. First, corpus-derived materials extracted from specialised purpose corpora enable ESP teachers in the creation of course syllabi and teaching materials for ESP courses (Bowker & Pearson, 2002; Gavioli, 2005; Nesselhauf, 2005; Partington 1998; Römer 2005a). Second, in

¹ Intuition refers to a native-speaker's perceived accuracy and acceptability of language use.

approaches known as corpus-driven² or corpus-based³, corpus linguistics enables ESP learners to experiment with data derived from specialised corpora. In this way, it is the learners, as opposed to language experts, who are given the opportunities to explore and work out with the concordance data (hands-on learning) to perform various language activities including, for instance, checking the correct usage of words and grammar of their written tasks. This corpus-based approach to language learning is also known as ‘classroom concordancing’ or DDL (Data-Driven Learning)⁴, an approach proposed originally by Johns (1991a) using the *Identify-Classify-Generalise* technique. This is an inductive approach where, in his words, “...language-learner is also, essentially, a research worker whose learning needs to be driven by access to linguistic data” (Johns, 1991a: 2). What he means by this is that learners should be responsible for their own learning; that is, they should become learner-centred or autonomous learners through discovery learning. Learners should not leave it to teachers to help the process. This is an approach which has been proposed as striking the balance between the process and product approaches (Hadley, 1997), an approach which makes use of corpus technology (corpora and concordancers) to see regularities of patterns of language use (Johns & King, 1991). This approach also suggests that grammar should consist largely of consciousness-raising activities rather than the teaching of rules (Rutherford, 1987). In other words, DDL has opened up a new model for ELLT in this century.

² There is a contention in defining whether DDL approach is corpus-driven or corpus-based approaches. Tognini-Bonelli (2001) contends that corpus data is used in the corpus-driven approach to generate rules (to develop a theory), but corpus data is used by corpus linguists to test hypotheses about language in the corpus-based approach (used as a methodology).

³ McEnery, Xiao, & Tono (2006: 11), however, argue that “the sharp distinction between the corpus-based vs. corpus-driven approaches to language studies is in reality fuzzy”. They prefer the term ‘corpus-based’ to refer to the two activities of corpus search.

⁴ In this study, DDL encompasses the two activities of corpus search-corpus-driven and corpus-based, assimilating more of McEnery et al.’s (2006) stance.

1.0.2 The Status of English in Malaysia

English is regarded as the second important language to be acquired by Malaysian students after *Bahasa Malaysia* (the national language). Even though its status is secondary to *Bahasa Malaysia*, its role as a globalised and commercial language has been immense. Due to the fact that many university students have inadequate command of English as evident by their low MUET (Malaysian University English Test) achievement and their difficulty in expressing and conveying their thoughts in academic writing (MoHE, 2006), the need to improve English language competence among university students is therefore urgent.

The call to have exceptional English language competence among Malaysians is also triggered by Vision 2020 aspired by the former Prime Minister of Malaysia, Tun Dr. Mahathir bin Mohamad. The Vision 2020's ultimate plan is to transform Malaysia into becoming a developed, progressive, and caring society by the year 2020. Malaysians working in all occupational sectors are urged to keep up in pace with the latest technological advancement. Students are also sent abroad to major in science and technology fields to bring the knowledge back to the country. This indicates the need to acquire English for effective and successful communication, and as a means to comprehend subject contents. Moreover, in parallel with the recent shift made by the Ministry of Education of Malaysia in 2011 to put a greater emphasis on English listening and speaking components in the English language syllabus of the primary and secondary schools in Malaysia, it further indicates the importance of English as a means of communication in this global era.

1.0.3 The Importance of English in Legal Education in Malaysia

Malaysia is one of the commonwealth countries, thus its judicial system is rooted in the British judicial system. Because of that, English, particularly legal English (the language of the law or legalese), becomes the primary medium of communication in Malaysian legal profession and education. In legal profession, English is used as the primary language in law-making processes, judicial proceedings, court proceedings, and legal service (Noraini, 1997). Meanwhile, in legal education, English becomes the main medium of instruction in law courses, legal discussions, and seminars, et cetera. Most legal texts and references are mainly written in English with the influence of English Law (Nur Muhammad Insan Jalil & Mohd Fauzi Kamarudin, 2009).

Due to the importance of English in legal profession and education, there is a need to prepare law students with sufficient English communication skills. Therefore, numerous English for law courses have been offered in the English departments of the universities offering law degrees in Malaysia for instance the University of Malaya (UM), the National University of Malaysia (UKM), the International Islamic University of Malaysia (IIUM), the University of Sultan Zainal Abidin (UniSZA), and MARA University of Technology (UiTM). While UiTM offers the English Foundation for Law, a one-year preparatory programme to prepare law students for a bachelor degree in law, IIUM offers the English for Academic Purposes (EAP) course to assist students across disciplines, for example law students with study skills.

Besides, there are also some universities such as UM, UKM, and UniSZA⁵ that take a more serious step by offering specialised English courses to law students namely English for Academic Legal Purposes (EALP) in which the four English skills (listening, speaking, reading, and writing), are geared towards the needs of law students. Malaysian universities also set a MUET Band 4⁶ and above as the English entrance level for students reading law in Malaysian universities, a high level of English competence that needs to be shown prior to their admission to the bachelor degree programme in law.

1.1 Statement of Problem

Adult English as Second Language (ESL) law students in tertiary education need to possess collocational competence⁷ for their survival in academic and professional worlds. They have to write well-crafted problem question essays often required of them in legal courses, carry out competent legal research, and defend themselves, with sound arguments and reasoning in mock trials, et cetera. Gaining mastery over collocations; that is, having the knowledge of which legal patterns or word combinations sound more natural and appropriate in specific legal texts, genres, and contexts is extremely essential as it will indicate law students' linguistic competence. This ideal notion, however, is not often the case. Many law students, including the subjects in this study⁸, lack colligational competence⁹ (fluent use of colligations¹⁰ of prepositions). They may be capable of producing well-formed sentences but their sentences lack naturalness, are

⁵ In UniSZA, this programme is offered only to semester five diploma students.

⁶ During the time of the study, admission to the law programme still considered a MUET band 3.

⁷ Collocational competence is defined as one's ability to combine words correctly with their partners (Hill, 2000).

⁸ The subjects were semester three undergraduate students majoring in law in the Faculty of Law and International Relations (FLAIR), Sultan Zainal Abidin University (UniSZA), Malaysia.

⁹ In the context of this study, colligational competence is defined as students' ability to colligate words accurately, to perceive the semantic functions of grammatical patterns in relation to other patterns within the context of the sentence, and to use the patterns correctly (Sinclair, 2004).

¹⁰ Colligation is concerned with the typical grammatical patterning of words (or word classes) (Hoey, 2005).

non-native-like, and show a deviation from the spoken and written convention produced by the legal discourse community (Gozdz-Roszkowski, 2004).

Prepositions¹¹ are small words but they are the most essential words in specialised discourse (Flowerdew, 2009; Hunston, 2008), especially in legal discourse (Bhatia, 1993, 1998; Charrow & Charrow, 1979; Gozdz-Roszkowski, 2003). They are so prevalent in legal genres for examples acts, statutes, reports, and academic textbooks. They also often appear more than ten times in a sentence. The frequent presence of complex prepositional phrases and single-word prepositions carries a specific reason - they purport to avoid ambiguity and lack of clarity of the text (Bhatia, 1993). Their prevalent features in legal discourse reflect the very characteristic of legal register. It contains lengthy sentences, for example 50 words on average (Danet, 1985). The prominent use of nominalisation, for example *to make an amendment to the Constitution* instead of *to amend the Constitution*, a verbal group (Gustafsson, 1984), is another attribute of legal register. The following two extracts show the frequent presence of these patterns (10 and 19 underlined patterns respectively) in a legal sentence:

¹¹ Prepositions are defined as “a word which relates a substantive, its object, to some other word in the sentence” (Roberts, 1954: 222). There are many types of prepositions - single-word (e.g., *in, on, of*), two-word (e.g., *because of, due to, owing to*), three-word (e.g., *as opposed to, at par with, in pursuant of*), and four-word (e.g., *on the other hand, on (the) grounds of, in the case of*). Two-word, three-word, and four-word prepositions are complex prepositions.

Misrepresentations made, or frauds committed, by agents / acting in / the course of their business / for their principals, have the same effect on agreements / made by such agents / as if such misrepresentations or frauds have been made or committed by the principals; but misrepresentations made, or frauds committed, by agents /, in matters / which do not fall within their authority, do not affect their principals.

Contracts Act 1950 (2009: 82)

5 *The Community shall have as its task, by establishing a common market and an economic and monetary union and by implementing common policies or activities referred to/in Articles 3 and 4, to promote throughout the Community a harmonious, balanced and sustainable*
10 *development of economic activities, a high level of employment and of social protection, equality between men and women, sustainable and non-inflationary growth, a high degree of competitiveness and convergence of economic performance, a high level of protection and improvement of the quality/of the environment, the raising of the standard/of living and quality of life, and economic and social cohesion and solidarity among Member States.*

(Article 2, Official Journal of the European Union, 2006: para 4)

Colligations of prepositions are essential elements in legal texts since they perform various pragmatic functions. Besides functioning as the construction of knowledge (Halliday, McIntosh, and Stevens, 1964), and “...the articulation of conceptual relations in legal discourse...” (Jones & McCracken, 2006: 17), they function as *referential* (conveying information), *conative* (persuasive and regulatory), and *metalinguistic* (discussing the language itself) (Thorne, 1997). Bhatia (1998), Durrant (2009), and Gozdz-Roszkowski (2003) state that complex colligations of prepositions perform *textual* (text organisers) and *referential* functions. The examples of text organisers include *in accordance with*, *subject to the provision*, and *pursuant to section X*, while the instances of *referential* function include *in reference to*, *in the presence of*, *for the benefit of*, and *on the part of*.

To exemplify, in Article 2, line 1 above, the prepositional phrase *as its task* performs a *textual* function. It is used to define the scope of the regulation (Bhatia, 1998). The phrase itself is initiated by the verbal phrase *shall have* that signals a regulatory function in the text (Seymour, 2002, as cited in Gibová, 2012). In addition, the pattern *referred to* (line 3) performs a *referential* function, a referral to the authority (Bhatia, 1998). To conclude, colligations of prepositional patterns play essential functions in legal texts both as textual coherence and cohesion and the construction of knowledge (Bhatia, 1993).

Prepositional patterns¹² are of two types. First, they constitute the combination of single-word prepositions with: (1) technical vocabulary (e.g., *in consideration of, in the case of, the approval of*); (2) academic vocabulary (e.g., *related to, evidence of, persistent to*), and (3) common words which have become specialised in legal discourse (e.g., *agree with, come to, enter into*). Second, prepositional patterns are complex prepositional phrases which consist of many words (e.g., *in pursuant of, in accordance with, on the basis of*), but they contain only a single meaning. These two types of colligations function as the construction of knowledge in specialised disciplines (Halliday, 1967a; Halliday, McIntosh, & Stevens, 1964; Fuentes, 2007; Matthiessen & Halliday, 1997) including legal discourse.

According to Halliday (1967a), a sentence contains many phrases and word groups called structural units which are sequenced horizontally. This sequence of units is ordered in the form of constituents (ranks) based on the stylistic convention, genre, and

¹² The operational definition of colligations of prepositions employed in this paper is as below:

- a. prep + noun + preposition (e.g., *in contrast to, as opposed to, by virtue of*)
- b. noun + preposition (e.g., *approval of, discussion about*)
- c. adjective / participle + preposition (e.g., *contrary to, binding on, bound by*)
- d. verb + preposition (particles)¹² (e.g., *come to, enter into, look to*)

register of a particular discourse that simulates the discourse community or the society that speaks the language. The sequence of legal events is constructed through the chaining of colligations of prepositional patterns. This is construed, for example, in the following clause taken from Article 38 of Canada's 1982 Constitutional Charter:

An amendment to the Constitution / of Canada / may be made by proclamation/
issued by the Governor General / under the Great Seal / of Canada where so
authorised ...

(Williams, 2004: 115)

Legal knowledge is constructed and conceptualised via the chaining of colligations of prepositional patterns as can be seen in the patterns underlined in the clause above. The existence of these constructions in the law of contract phraseology should be made viable to law students in order for them to have complete mastery of law and for their survival in legal profession and education.

Furthermore, colligations of prepositional patterns are very essential elements in legal discourse for they perform various pragmatic functions in legal texts (Leckie-Tarry, 1993, as cited in Ghadessy, 2001; Akmajian, 1995). Jones and McCracken (2006: 17) claim that these patterns are “the articulation of conceptual relations in legal discourse”. They function as *referential* (conveying information), *conative* (*persuasive*), and *metalinguistic* (discussing language itself) (Thorne, 1997). Furthermore, Gozd-Roszkowski (2003) and Durrant (2009) state that complex colligations of prepositions¹³ performed many *textual* (text organisers) and *referential* functions. The examples of complex colligations of prepositions functioning as text organisers include *in*

¹³ Gozd-Roszkowski (2003) called them lexical bundles instead of colligations of prepositions.

accordance with, subject to the provision, and pursuant to section X. Meanwhile, the examples of complex colligations of prepositions functioning as referential are *in the presence of, for the benefit of, and on the part of.*

In the Systemic Functional Grammar (SFG), each unit of language has its own function in relation to the society that shapes the language (socio-pragmatic functions). Since specialised texts have relations to the society or discourse community that shapes the knowledge, including legal texts, the pragmatic functions the prepositional patterns play would be *locative, manner, temporal, reason, causative* (Halliday, 1994; Halliday & Mathiessen, 2004) and *discoursal* functions (Halliday & Hasan, 1976). In other words, prepositional phrases actually provide the essential texture to legal texts (Halliday & Hasan, 1985).

Furthermore, even though Biber, Conrad, and Cortes (2004) label some colligations of prepositions such as *in the case of the, one of the most, and an increase in* as lexical bundles, they are talking about the same thing. These lexical bundles are essential to be focused on since they are common multi-word items in university registers and academic contexts including legal discourse. Failure to observe the functional role of prepositional patterns within a legal sentence structure in relation to other word groups may result in law students' inability to identify the main message conveyed in the sentence (Mkhatshwa, 2007).

Moreover, colligations of prepositions play a dominant role as textual cohesion in all legal genres (Bhatia, 1998). He claims that "of all the professional and disciplinary texts, legal genres display an overwhelming use of some of the most typical inter-textual and inter-discursive devices, which often create specific problems in their

construction, interpretation and use” (Bhatia, 1998: para 3). These inter-discursive devices seem to serve the following functions: (1) signaling textual authority (signaling a link to the text of the indicated subsections, e.g., *in accordance with*); (2) providing terminological explanation to make legal definitions specific and different from common definitions (e.g., *within the meaning of the Charities Act, 1960*); (3) signalling textual coherence to the reader so that text must be interpreted in the context of something expressed elsewhere (e.g., *falling within the meaning of, referred to in subsection, specified in section*), and (4) defining legal scope (e.g., *subject to paragraph 11 (2) of Schedule 2 to this Act*).

However, on top of everything, the inter-textual patterning in all legal genres play a much larger function; that is, “to serve generic and disciplinary functions of making laws clear, precise, unambiguous and all-inclusive” (Bhatia, 1993, as cited in Bhatia, 1998: para 2). Thus, due to the importance of colligations of prepositions as discussed previously, it clearly shows that gaining mastery of these lexico-grammatical patterns is highly essential, and they should become the main items to be focused on in any English courses or materials prepared for law students. This is due to the fact that legal register bears ‘unique semantic characteristics’ that exhibit considerable lexical differences between legal and general English (Macko, 2012).

Further on, the texts which employ collocational properties or ‘specific legal lexis’ according to specific formulations prescribed by law are pronounced as conforming to a specific legal discourse community (Gozdz-Roszkowski, 2004) and preserving the professional legal image (Azirah Hashim, 2003). Swales (1990: 26) states that a conformant to the legal discourse community means the act of “conforming to the discursual expectations involving appropriacy of topics, the form, function, positioning

of discursual elements, and the roles texts play in the operation of the discourse community”. However, incomplete mastery of collocational properties greatly affects the stability of law or legal force of a text. The failure to produce them could result in the entire text being invalidated or being rejected by a particular legal discourse community for failure to preserve ‘the generic integrity’ (Gozdz-Roszkowski, 2004).

Despite their significant communicative functions, prepositional patterns are always considered as the hardest grammatical element to be acquired even with advanced ESL adult learners (Celce-Murcia & Larsen-Freeman, 1999; Hemchua & Schmitt, 2006; Lindstromberg, 1998; Norwati Roslim & Mukundan, 2011; Taylor, 1993). They are difficult for their semantics and functions (use) are largely arbitrary and difficult to characterise (Jarvis & Odlin, 2000), for example phrasal verbs. Phrasal verbs take specific prepositions, for example *with* in *put up + with*, *to* in *give in + to*, and *with* in *keep up + with* in order to form a meaningful unit, the idiomatic expression. The meanings, however, cannot be derived from each of the word in the patterns. For example, *give in* means *surrender* or *yield* instead of *give something inside*. This indeed has confounded many ESL learners.

In legal discourse, for example law of contract genre¹⁴, *comes to the knowledge of* is a phrasal verb because *comes to* means *reach*, not *comes towards something* where *to* is the preposition to express *direction*. Similarly, the phrasal verb *enter into* in the pattern *enter into an agreement* means *to agree to be part of the agreement* instead of *entering a place* (a physical activity). Understanding and making use of these phrasal verbs are always challenging to ESL law students. Krois-Lindner (2006: 3) asserts that

¹⁴ The scope of this study is the law of contract genre.

“...mastering legal English requires more than simply improving your knowledge of specialised vocabulary...[but rather] larger chunks of language, common phrases and word combinations that are not specialised legal terms, but are necessary for successful communication”. To sum up, since to know one’s field means to know the phraseology of the field (Francis, 1993), it is imperative therefore that law students possess complete mastery of colligations of prepositions in pursuit of their academic and professional success. But do law students know colligations of prepositions and their semantic functions?

A study into the respondents’¹⁵ productions of colligations of prepositional patterns in the problem question essays conducted at the beginning of this present research showed that they lacked the knowledge of colligations of prepositional patterns, and thus overlooking the pragmatic functions of the patterns. The patterns produced were mainly inaccurate, thus conveying inaccurate forms and semantic (meanings) and functions of the text. See the extract of a student’s essay¹⁶ below to show the prevalence of the prepositional patterns, as appeared in every single line and underlined, and the erroneous patterns produced (marked *).

¹⁵ 40 undergraduate law students in FLAIR (Faculty of Law and International Relations), UniSZA (Sultan Zainal Abidin University), Malaysia, participated in this study.

¹⁶ The Problem Question (PQ) essays consisted of three questions (see Appendix D for the PQ questions). Question no. 1 consisted of three sub-questions - a, b, and c. The essay extract shown as below is from sub-question b of Question no. 1.

(b)* *In situation of where Mr. Chen telephoned Mr. Daud on 22nd accepting the offer but Mr. Daud has insisted that Mr. Chen accept the offer in writing, it falls under acceptance of the proposal/in prescribe manner. The issue is whether the telephoned made by Mr. Chen has a binding contract for his acceptance. In the Contract Acts 1950 S. 7 (b) where to *convert a proposal to promise, the acceptance, stated that the promisee must do as/ according to the promisor demand/of manner/*on acceptance. Since in this case Mr. Daud has asked Mr. Chen to post a letter of acceptance, then Mr. Chen must do as the order. If not, there is no contract between the parties as the acceptance is no absolute. This can be seen *in case of Tinn v. Hoffman.*

The student's erroneous pattern can be observed, for example, in the pattern *in case of Tinn v. Hoffman* (line 10, paragraph 2). This is an incorrect usage since the context and semantic function that this student intended to express should be in the following pattern - *in the case of* which means *Tinn v Hoffman's case*. The use of the pattern *in case of* requires a different context, for example in the following sentence: *In case of Mr. Tinn's disappearance, the court may postpone the case*. The student was clearly confused with the semantic functions of the two patterns. While the complex preposition *in the case of* signals **textual authority** (Bhatia, 1998), the pattern *in case of* expresses **probability** (Halliday & Mathiessen, 2004).

Data-Driven Learning (DDL) approach has been suggested by researchers as the best approach to teaching collocations since it has the potential to describe colligations of prepositions, their semantics and functions through repeated exposures to the patterns in much richer and authentic contexts (Celce-Murcia & Larsen-Freeman, 1999; Cobb, 1997; Danielsson & Mahlberg, 2003; Durrant, 2009; Gabrielatos, 2005; Gaskell & Cobb, 2004; Koosha & Jafarpour, 2006; Someya, 2000) especially in ESP courses (Gavioli, 2005; Gledhill, 1995a; Groom, 2007; Lewis, 2000; Tognini-Bonelli, 2000). DDL is also claimed as more effective than the structural syllabus for rules are overtly prescribed by teachers in dense contexts, and

learners are required to memorise and reproduce them as fluently as possible in inauthentic contexts (Mukundan & Norwati Roslim, 2009).

However, direct use of DDL may harm students in so many aspects. Johns (2002: 1) admits that “the direct use of concordance data poses a number of challenges: technical, linguistic, logistic, pedagogical and philosophical”, especially to teachers (Bernardini, 2002; Boulton, 2008b, 2008c, 2009b, 2010a). Besides, Boulton (2011a) and Johns (1991a, 1991b) propose that the original proposal of DDL was for students to work with paper-based concordancing materials carried out in classrooms assimilating more teacher-led paper-based grammar rules used in the traditional approach (Smith, 2009; Koosha & Jafarpour, 2006; Tian, 2005a), not independent DDL as proposed by many.

1.2 Purpose of the Study

Due to lack of experimental research on DDL being carried out (Boulton, 2008a), and very few studies being conducted using guided DDL, the employment of paper-based DDL materials and guided online DDL which use prompts to guide learners to search the concordances online in teaching law students, this study intends to investigate the effectiveness of guided DDL instruction on Malaysian law undergraduates' knowledge and production of colligations of prepositions.

1.3 Objectives of the Study

Based on the purpose cited above, several objectives of the study were identified. They include:

1. To investigate the extent to how much exposure to DDL impacts on the University of Sultan Zainal Abidin (UniSZA)'s law undergraduates' performance in colligations of prepositions.
2. To examine the extent to how much exposure to DDL influences UniSZA's law undergraduates' knowledge of colligations of prepositions in terms of:
 - a. form;
 - b. meaning; and
 - c. production.
3. To explore the factors which influence the students' knowledge of the form, meaning, and production of colligations of prepositions.

1.4 Research Questions

These objectives are addressed through the following research questions:

1. How does exposure to DDL impact on the University of Sultan Zainal Abidin (UniSZA)'s law undergraduates' performance in colligations of prepositions?

Hypothesis 1: The students who are exposed to DDL approach will perform significantly better in the knowledge and production of colligations of prepositions than will the students who are exposed to non-DDL approach.

2. To what extent does exposure to DDL influence UniSZA's law undergraduates' knowledge of colligations of prepositions in terms of
 - a. form?
 - b. meaning?
 - c. production?

Hypothesis 2: The students who are exposed to DDL approach will demonstrate significantly higher knowledge of the forms, meanings, and production of colligations of prepositions than will the students who are exposed to non-DDL approach.

3. What are the factors which influence the students' knowledge of the form, meaning, and production of colligations of prepositions?

The impact of exposure to DDL on the students' performance in colligations of prepositions was measured by examining the overall performance of the students in the sentence-completion, error-identification and correction, semantic function, and single-sentence construction tasks. Meanwhile, the impact of exposure to DDL on the students' knowledge of the form, meaning, and production of colligations of prepositions was measured by investigating the students' performance in the two tasks - sentence-completion and error-identification and correction tasks (the form of

colligations of prepositions), semantic function task (the meaning of colligations of prepositions), and single-sentence production task (the use of colligations of prepositions). The triangulated data including interviews, survey questionnaire, and analysis of the pretest-posttest results were employed to gather in-depth information about the factors influencing the students' knowledge and production of colligations of prepositions.

1.5 Theoretical and Conceptual Framework

The theoretical premises which frame this study are Firth's contextual theory of meaning (1957) and Vygotsky's (1978) socio-cultural or scaffolding theory (a constructivist theory). According to Firth, the meaning of speech events could be derived from the contexts of culture (situational/extra-linguistic). Meanings could also be realised at the linguistic level. The meaning of patterns or collocations could be derived from the environments (contexts) of the patterns in a given text (contexts) which are recurrent and observable (concordance lines) within a wider context of culture (the community that speaks the language). Thus, in the context of specialised languages, for example legal language, the meanings and functions of legal language could be derived from a wider context of culture (the legal discourse community that speaks the language).

In the process of meaning making, learners are always incapable of performing challenging tasks and thus requiring 'scaffolding' and 'apprenticing' by teachers or facilitators before independent learning can take place. This scaffolding, as theorised by Vygotsky (1978), may come in the form of guided tasks or tools to facilitate the

learning process. In this DDL approach, the use of module-based concordance printouts and the tasks are the forms of scaffolding used in assisting learners acquiring the language.

In this study, DDL is conceptualised as the independent variable and the form¹⁷, semantic function¹⁸, and use¹⁹ of colligations of prepositions in the pretest-posttest as the dependent variables. A combination of scaffolded DDL comprising online ('hard' or 'direct' DDL) and DDL module ('soft' or 'indirect' DDL) constitutes the independent variable factor in the present study while the form, meaning (semantic function), and production are the dependent variable factors in the DDL framework. In the DDL model, the learning process starts when a learner is exposed to repeated patterns in the module. Since the aspects of forms and semantic function correlate rather strongly in a given context (Sinclair, 1991), the knowledge of the forms equals the knowledge of their semantics and functions. Colligation of prepositional knowledge is reflected in the three components of the pretest and posttest - form, meaning, and production. In this model, it comes in sequence. The knowledge of the forms leads to the knowledge of meanings and functions²⁰, and these two types of knowledge may stimulate the active production (use) of collocation at a later stage. Figure 1.1 below illustrates the conceptual model to show the relationship between the independent and dependent variables.

¹⁷ The aspect of forms is measured in the sentence-completion and error-identification and correction tasks in both the module and pretest-posttest.

¹⁸ The aspect of semantic function is measured in the semantic function task.

¹⁹ The aspect of use is measured in the single-sentence writing task.

²⁰ According to Sinclair (1991: 7), "There is ultimately no distinction between form and meaning".

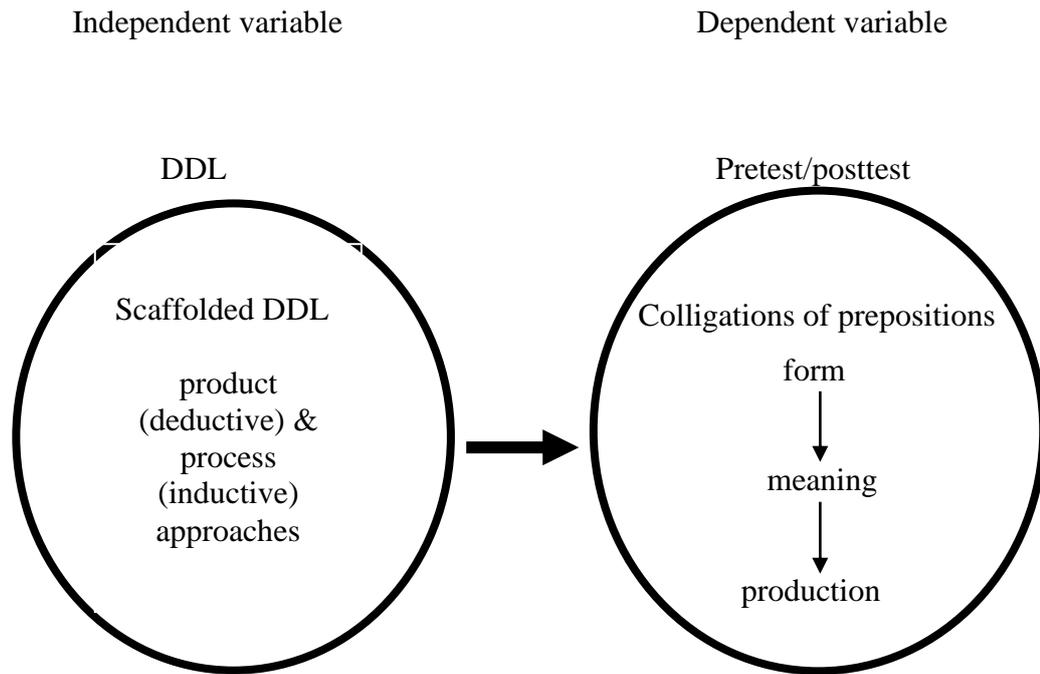


Figure 1.1 Conceptualisation of the DDL approach

1.6 Scope and Limitations of the Study

The scope of the research was limited in several ways. First, the focus was narrowed to one category of collocations - grammatical collocation (colligation). Second, it concentrated on colligations of prepositions, not on other types of grammatical collocations. Third, the focus was again narrowed to colligations of prepositions in legal contract genre since the law of contract courses, Law of Contract I and Law of Contract II, are the two compulsory courses required for the law undergraduate students to undertake in the first and second semesters. And again, the colligational patterns used in the experimental course in this study were taken from the respondents' erroneous written production produced in their academic essay writing, the problem question essays, not the spoken one. This study also concentrated on the production of collocations within sentence level, not in a much larger text.

The limitation of this study is concerned with the sampling method and small sample size. The sample was chosen through purposive sampling procedure rather than random assignment, and only 40 semester three law undergraduates in FLAIR (Faculty of Law and International Relations), UniSZA participated in the research. The selection was made as such since there was only one group of semester three students available in the semester. And out of the 40 DDL respondents, only 10 were interviewed to achieve greater depth information about the effectiveness of DDL. Due to this small sample size, some might argue that the findings might not be generalised to other populations.

1.7 Summary

This chapter has described the following:

1. The rationale for this study.
2. The background to set the stage for this study.
3. The research objectives and questions.

The next chapter shall describe the literature review focusing on corpus linguistics in ELLT (DDL approach), patterns of language use (colligations of prepositions in legal contract genre), and the previous studies on the implementation of DDL in ELLT. Chapter Three describes the methodology for this study and Chapter Four presents the findings and discussion. Finally, Chapter Five provides the conclusion and recommendations based on the findings.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter discusses five main topics covered in this study which include corpus linguistics and Data-Driven Learning (DDL) approach, collocation, colligations of prepositions, legal discourse, and the previous studies on DDL. Each section will begin with the introductory part, sub-sections, and empirical studies carried out so far in each related topic.

2.1 Corpus Linguistics and Data-Driven Learning (DDL)

If meaning is function in context, as Firth used to put it, then equivalence of meaning is equivalence of function in context.

(Halliday, 1991: 16)

2.1.1 Introduction to Corpus Linguistics

What is corpus linguistics? Corpus linguistics is considered as “a fairly new approach to language” (Teubert & Cermakova, 2007: 50). In simple terms, corpus linguistics is defined as the study of language based on examples of ‘real life’ language use (McEnery & Wilson, 2001) or ‘social phenomena’ (Halliday, 1970b, 1973, 1975, 1978, 1985, 1991, 2005; Thompson, 1996; Halliday & Mathiessen, 2004; Teubert & Cermakova, 2007). Corpus linguistics is defined by McEnery and Wilson (2001) as a methodology and may be used in almost any area of linguistics, for example syntax,

semantics, and sociolinguistics. Tognini-Bonelli (2001), however, asserts that corpus linguistics is both a methodology and a theory of its own right.

Corpus linguistics makes use of corpora (the plural for corpus) and a concordancer. A corpus is a large collection of texts (Sinclair, 1991), designed mainly for linguistic research or constructed *ad hoc* for use by teachers or researchers (Aston, 1996). The texts in corpora are chosen “according to explicit criteria in order to capture the regularities of a language, a language variety or a sub-language” (Tognini-Bonelli, 2002: 55). Besides, corpus linguistics is descriptive linguistics, not prescriptive linguistics. It describes how a language is actually used, not prescribes how a language should be used.

Corpus linguistics is a method of carrying out linguistic analyses such as lexico-grammatical patterns in texts. The method of analysis of lexical patterning in corpus linguistics employs the statistical analysis (frequency counts). Corpus linguists working along with this paradigm adopts this frequency-based approach in the analyses of their work (see Granger, 2008; McEnery & Wilson, 2001; Stubbs, 1996; Tognini-Bonelli, 2001). Firth’s contextual theory of meaning, especially in the phrase “...typical, recurrent, and repeatedly observable” (Firth, 1957b: 35) becomes the central tenet for the frequency-based approach.

A concordancer is another essential tool in corpus linguistics. The main operation of a concordancer is to extract linguistic data from a corpus by providing frequency counts of, for example particular features of lexis, the KWIC (Key-Word-In-Context), and lexico-grammatical patterns. A concordancer selects, organises, and indexes examples of a given word or phrase used in contexts. It displays the typical patterns in which the selected word or phrase is used in the format of KWIC concordances (Sinclair, 1991),

and reveals the ‘meanings and functions’ of those patterns (Gavioli, 2001). Thus, a concordance is a list of occurrences of the given key word or phrase which are extracted from a corpus and formatted in separate lines.

2.1.2 Corpus Linguistics in ELLT

Over the past two decades, corpora and corpus evidence have not only been used in linguistic research in all fields such as in lexicography, discourse, or sociolinguistics, but also in the teaching and learning of languages. Learners can now have access to language corpora, examine authentic language and discover linguistic patterns by themselves, which is the premise of ‘Data-Driven Learning’ (DDL). This inductive approach was proposed originally by Johns (1991a: 2) using an *Identify-Classify-Generalise* technique where, in his words, “...language-learner is also, essentially, a research worker”. What he suggests here is that learners should be guided to formulate hypotheses, discover facts about the language and draw their own conclusions based on the corpus data in the same way as corpus linguists do about their language.

DDL has been approached in many ways. Many researchers, for example Bernardini (2000, 2002, 2004), Hafner and Candlin (2007), and Yoon (2005) have treated DDL as direct corpus consultation (independent learning or direct DDL) whereby learners are given the opportunity to work with corpus data independently. There are also arguments that DDL would work best if learners are helped or scaffolded (deductive DDL) at the initial stages prior to allowing them to work with DDL independently (see Koosha & Jafarpour, 2006; Boulton, 2008, 2009a, 2009c, 2010a; Hale, 2010; Gilquin & Granger, 2010). This type of DDL approach takes a middle-ground position between purely inductive approach (direct DDL) and purely deductive approach (the traditional

approach which implements the PPP technique-Presentation, Practice, and Production). It strikes the balance between the purely product and process approaches (Hadley, 2002; Rutherford, 1987), for example, while learners in the purely deductive approach are fully guided by the teacher (the sole knowledge provider), learners in the middle-ground approach are temporarily guided. Guidance usually comes in the forms of guided tasks or prompts. Once learners have shown competency at handling the learning independently, for example they are capable of searching and making generalisations of the item searched, only then teacher assistance stops. Students are then allowed to work independently with corpus data. This middle-ground position of DDL suggested in the present study is illustrated below:

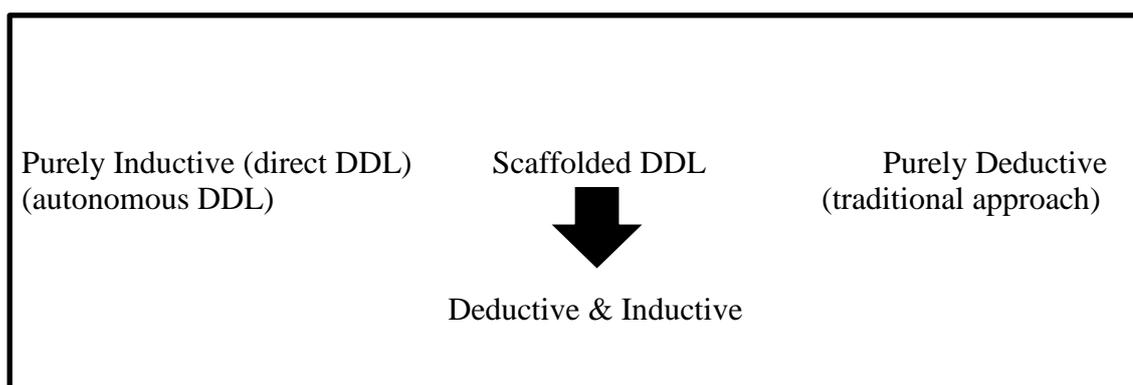


Figure 2.1: The middle-ground position of DDL

Corpus data are often treated as corpus-based (a methodology) (McEnery & Wilson, 2001) or corpus-driven (a theory) (Tognini-Bonelli, 2001). In DDL research, we may have noticed that some DDL researchers made use of ready-made corpora for classroom use (see Koosha & Jafarpour, 2006; Yanhui, 2008; Yoon, 2005). This activity is more corpus-based. However, we also may have encountered that some researchers designed their own corpora (see Cobb, 1997; Hafner & Candlin, 2007; Kennedy & Miceli, 2001) for students to generalise and formulate, for example

grammatical rules, taking more of corpus-driven research activities. Though this issue has not yet been resolved, the term corpus-based is applied in the present study on the ground that there is “a less rigid distinction between the two approaches” (McEnery al., 2006). According to them, both corpus-based and corpus-driven approaches are based on a preconceived theory.

2.1.3 Theoretical Framework of DDL

There are two theories that frame the present study- Firth’s (1957b) ‘contextual theory of meaning’ (a linguistic theory) and the socio-constructivist theory of learning (scaffolding) by Vygotsky (1978). Tognini-Bonelli (2001:14) claims that “When we bring corpus evidence into the classroom, it is important to understand the double role of corpus linguistics, entailing the methodological innovation and a theoretical one, because together they will account for a new way of teaching”. Adopting the Firthian framework of the ‘contextual theory of meaning’, the central tenet of the theory is excerpted as follows:

We must take our facts from speech sequences, verbally complete in themselves and operating in contexts of situation which are typical, recurrent, and repeatedly observable. Such contexts of situation should themselves be placed in categories of some sort, sociological, and linguistic, within the wider context of culture.

(Firth, 1957b: 35)

Firth contends that the analysis of the meaning of utterances is the main goal of linguistics. He rejects any kind of distinction between ‘langue’ and ‘parole’ proposed by the father of modern linguistics (de Saussure, 1966) and Chomsky’s (1965) ideas of ‘competence’ and ‘performance’ which considers language as a mental system, not as

verbal behaviour. According to Firth, language is a set of events which speakers uttered, a mode of action and a way of 'doing things'. As utterances occur in real-life contexts, Firth argued that their meaning derived just as much from the particular situation in which they occurred ('extralinguistic') as from the string of sounds uttered (linguistic). This 'contextual theory of meaning' integrates language with the objects physically present during a conversation to ascertain the meaning involved.

While a linguistic unit (formal item) relies on its linguistic environments (contexts) in order to make meanings, meanings are further derived from extralinguistic contexts, contexts of situations and a much wider context of situations – culture. The sets of speech events are communicative events (functions) which are spoken and used by a society or discourse community (a group that share the same discourses, see Swales, 1990) in a given culture. These speech events make up a restricted language called a dialect or register (variation according to the use of language).

Concordance data are samples of language use. In the context of the present study, learners construct meanings of speech events (legal prepositional patterns) through direct observation of language use (law of contract texts) which are repeated, recurrent, and observable in concordance lines (linguistic contexts). Repeated exposures to the contexts (concordance lines) would enable learners to induce, generalise, and hypothesise rules, a problem-solving process required of them before DDL learning can become successful (Bruner, 1966). The concordances employed in DDL will assist learners in identifying the frequent collocates and the classification of word categories at the bottom level leading to generalised processes or activities, forming hypotheses at a higher level. This hypothesis-making (inductive learning) can be done either

independently via independent online searching ('hard' DDL) or through instructors' assistance (scaffolding) ('soft' DDL), making use of concordance printouts.

Up to now, DDL has been accepted by some with open arms but there are still others who are rather skeptical (refer to Section 2.1.4 for further discussion on the potentials and limitations of DDL). Many have treated DDL as direct corpus consultation, not as the scaffolded DDL approach which makes use of concordance printouts, the approach which was originally proposed by the proponent of DDL - Tim Johns (1991a, 1991b). There are arguments that DDL would work best if learners are given help by instructors at the initial stages prior to allowing them to work with DDL independently by making use of concordance printouts (see Boulton, 2008a, 2009a, 2009c, 2010), a scaffolded DDL approach that takes the middle-ground position.

This present study employs the scaffolded DDL approach. This approach lends support from the social constructivist theory (scaffolding) introduced by Vygotsky (1978). Vygotsky defines scaffolding instruction as the "role of teachers and others in supporting the learners' development and providing support structures to get to that next stage or level" (Raymond, 2000: 176). This theory postulates that learners would reach the mastery level if they are scaffolded at the ZPD (Zone of Proximal Development). ZPD is the area between what a learner can do independently (mastery level) and what can be accomplished with the assistance of a competent adult (teacher) or peer (van Der Stuyf, 2002). Vygotsky believes that any child (learner) could be taught any subject effectively using scaffolding techniques by applying the scaffolds at the ZPD. This scaffolding strategy helps learners reduce the cognitive workload at the initial stages.

Scaffolding instruction is temporary and as the learners' abilities increase, the scaffolding provided by the more knowledgeable other is progressively withdrawn. In scaffolded DDL classrooms, the teacher would scaffold learners in drawing conclusions at grammar rules or word meanings by providing printout concordance materials and guided DDL tasks before learners are left alone to work independently after they have mastered the skill. This may reduce the cognitive workload among learners when they have to use higher order learning skills such as generalising and formulating, the skills which might be foreign to Asian students and to those who are used to the deductive learning approach for so long (Smith, 2009).

According to O'Keefe, McCarthy, and Carter (2007), the main focus of socio-cultural theories is the social nature of classroom interaction. Learners "collectively construct their own knowledge and understanding by making connections, building mental schemata and concepts through collaborative meaning-making" (Walsh, 2006, as cited in O' Keefe et al., 2007: 228). Scaffolding is realised in dialogues (between a teacher and learners or within learners themselves in the form of self-dialogue (manifested in 'private speech') to comprehend the meaning, for example the content of a subject under study. Scaffolding is also a teacher strategy to assist learners to make sense of difficult tasks. The strategy comes in the forms of challenge and support (Walsh, 2006). A teacher provides the amount of challenge to maintain learner interest, motivation, and involvement, whereas the support is given to ensure students' understanding of tasks. Scaffolded support recedes once a learner "can internalise external knowledge and convert it into a tool for conscious control" (Bruner, 1990: 25).

In DDL context, scaffolding consists of problem-solving tasks (constructive) used to scaffold concordancing which are "provided to students in the form of questions termed

as ‘question prompts’ or ‘scaffolding prompts’” (King, 1991, 1992; King & Rosenshine, 1993; Lin & Lehman, 1999; Scardamalia et al., 1994, as cited in Ha Le, 2010: 19), ‘guided tasks’ (Boulton, 2010a), or “search skills for students to ‘discover’ collocations by themselves” (Woolard, 2000: 33) in the study of collocations. These scaffolding prompts would benefit learners cognitively by eliciting “learners’ self-explanation, self-questioning, self-monitoring, and self-reflection during their learning processes”, guiding “students in their knowledge construction, knowledge integration, and knowledge representation during their work on complex learning tasks”, linking “their arguments or explanations with their existing knowledge”, and finally, making students’ thinking more apparent and explicit, in which they are “better able to recognise areas in which their own understanding is lacking and to engage in knowledge integration” (Chang & Sun, 2009, as cited in Ha Le, 2010: 20). Since the prompts are the problem-solving tasks, thus to scaffold concordancing is to scaffold a problem-solving process.

Ha Le (2010) outlined six procedures comprising three scaffolding types (*procedural, reflective, elaborative*) to exemplify ‘question prompts’ or ‘guided tasks’. Table 2.1 showed the outline of the procedures and scaffolding prompts.

Table 2.1: Scaffolding procedures and prompts

Search Procedure		Description of Search Procedure	Scaffolding Type and Prompts
1.	Orientation	<p>-Elicit from students the specific procedure of concordancing that they are going to follow.</p> <p>-Reinforce students' understanding about basic grammar categories of noun, verb, and adj.</p>	<p>Procedural prompts: defining goal and search procedure</p> <p>Examples: -How can we...? -Why do we...? -What are the parts of speech of the words in this sentence?</p>
2.	Identifying collocation /mis-collocation	<p>-Ask students to list word combination(s) of verb + noun /adj + noun in the sentence and check their frequency in Collins Word Banks (CWB).</p> <p>-Confirm collocation/mis-collocation</p>	<p>Reflective scaffolding: monitoring and evaluating</p> <p>Examples: -Do you agree or disagree with...? -Is there anything wrong with this combination? -Does this sound natural to say</p>
3.	Selecting the right keyword	<p>-Direct students' attention to mis-collocation.</p> <p>-Draw on students' prior knowledge to identify the keyword, to separate the keyword (the noun) from the mis-collocation, and to generate concordances of the key noun.</p>	<p>Elaborative scaffolding: elaborative thought, eliciting explanations</p> <p>Examples: -What is being discussed in this sentence? Why? -The topic is the keyword, so the keyword should be a...(noun)... -How does...(noun)...go with other words?</p>
4.	Analysing concordance output	<p>-Ask students to draw on their linguistic resources to identify relevant patterns of a verb + the key noun / an adj + the key noun and skip irrelevant patterns.</p> <p>-Confirm collocations with Word Sketch function (a function in CWB).</p>	<p>Elaborative and reflective scaffolding: elaborating thoughts, eliciting explanations, monitoring, evaluating</p> <p>Examples: In what way is...related to...? How can...be used to</p>

			combine with...(the noun)...? Another combination could be...
5.	Collecting possible collocates	-Elicit from the students possible collocates of the keyword. -Ask students to check their frequency and to confirm results in <i>Word Sketch</i> .	Elaborative scaffolding:elaborating thoughts, eliciting explanations Examples: Which one is used to describe...(the noun)...? Why is it? An example of this is From <i>Word Sketch</i>
6.	Deciding on the best collocate	-Ask students to draw on the meaning of the mis-collocate to select the best collocate among the synonym(s). -Ask students to check and make sure the best collocate can fit in terms of meaning form in the context. -Check new word combination with <i>Concordance</i> function to confirm collocation.	Elaborative and reflective scaffolding: inducing reasoning, prompting for justifications, monitoring, and evaluating Examples: Which one is close in meaning to...? What is a new example of...? From <i>Concordance</i> function, we can see that ...is a collocation.

To conclude, the two theories which underpin the present study, Firth's 'contextual theory of meaning' (1957b) and Vygotsky's scaffolding theory (1978) serve as a comprehensive parameter to investigate the effectiveness of DDL. In this present study, scaffolding comes in the form of the prepared module consisting of the concordance-printouts extracted from the two corpora - the British National Corpus (BNC) for Law and the Law of Contract Corpus (LCC).

2.1.4 The Potentials and Limitations of DDL

DDL has been claimed by others as having great potentials. Many corpus researchers attribute these potentials as factors which may contribute to learner success in using corpora in ELT (Boulton, 2009, 2010a, 2010c, 2011a; Flowerdew, 2003, 2005; Hunston, 2002). However, as does any other approach, DDL also has its limitations. The following sections will review both the benefits and shortcomings of DDL, especially in the light of the traditional or conventional approach.

2.1.4.1 Potentials of DDL

The corpus contribution to ESP is indeed significant as a basis for teaching materials and resources. In fact, according to Aston (1998), Belcher (2006), Bernardini (2004), Conrad (2005), Gabrielatos (2005), Gavioli (2005), Pearson (1998), Sinclair (1991, 2004a), and Tognini-Bonelli (1993, 2001), the most accepted contributions of corpus linguistics have been in descriptions of language for specific purposes - language structure and use with emphasis on lexico-grammatical patterns or collocations. According to Conrad (2005: 399), "...teachers and students of a specialised variety want to know the characteristics of that variety and, therefore, analysis of a corpus of that variety is clearly useful".

Using concordances may also help ESP learners grasp the lexis, concepts, usages, and pragmatics of a specialised language. Aston (1996); Fuentes (2001); Gavioli (2005), Jabbour (2001), Pearson (1998), and Sinclair (1991, 2004a) suggested to make use of specialised corpora in teaching ESP for this type of corpora would be more

representative of the needs of a small group in terms of developing both declarative and procedural knowledge. This is because generic knowledge can be greatly facilitated if one understands how word combinations are structured and how they operate in textual environment. To ESP practitioners, maybe the issue of “what to teach” is of particular significant as opposed to “how to teach” (Hunston, 2002: 198, as cited in Gavioli, 2006: 56).

In English for Legal Purposes, the establishment of English for Academic Legal Purposes (EALP) courses to international students is still in its infancy (Master, 2005). According to Pérez-González (1999c), legal English is a newcomer to ESP in higher education. Knowing the fact that legal language is a formulaic language, how could those theories about legal language be applied in classroom setting? Research carried out so far in this field (English for Specific Purposes) has suggested the use of corpora for solution. According to Master (2005), the macro-linguistic concerns in EALP are legal writing and the use of computer-mediated materials. Bruce’s study (2002) on an EALP course in Hong Kong is one of a few publications available, and he asserts that EALP teachers should put an emphasis on the rhetorical aspects of arguments in legal problem answer writing. This involves the inclusion of conventionalised or formulaic legal expressions. Candlin, Bhatia, and Jensen (2002) also justify the need for a computer-mediated resource bank of English and discourse-based materials for teaching EALP because they found that the 37 EALP books currently available to be too context-specific and of little use outside that context.

Research on legal phraseology has probably become active since the inception of corpus linguistics. There are a few specialised legal contract corpora designed so far

which can be used for language descriptions. They include the AARHUS corpus (Danish-French-English) corpus in contract law by the Business School of AARHUS, developed 20 years ago, the academic collocation corpus by Durrant (2009) on academic legal writing including legal writing articles, legal contract corpora by Gozdzi-Roszkowski (2003, 2004) on analysis of lexical bundles and contract terminology, and the Memorandum of Understanding (MoU) contract corpus designed by Su'ad Awab (1999) on the analysis of modals. Durrant (2009), for example, produced a list of semi-technical (academic) collocations collecting from research articles written by several faculties and schools at Nottingham University including those from the law school. His research is very valuable, probably for two reasons. First, it confirms that colligations of preposition are the most frequent patterns found in all academic writing genres. Second, it shows that it is not the technical or specialised collocations that are frequent in academic writing but academic collocations. Colligations of prepositions (see Section 2.3 for further details) characterise the dominant aspects of legal language apparent across legal genres. DDL can be used to teach collocations of specialised courses, for example, legal discourse (see González, 1999c). We may notice that ESP/EALP, collocation, and DDL approach are inter-related. Their interrelationship is illustrated in Figure 2.2.

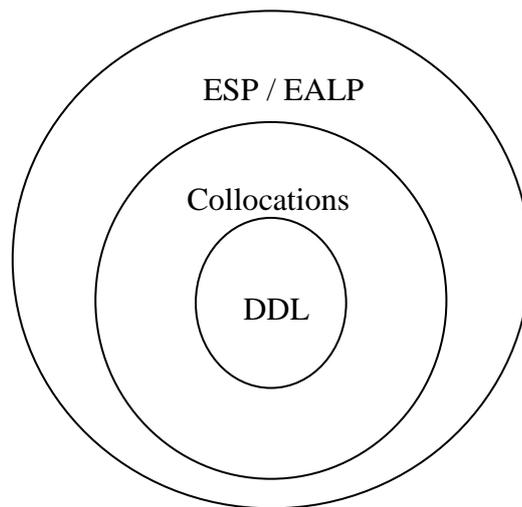


Figure 2.2: The inter-relationship between ESP/EALP, collocation, and DDL

Besides, DDL is also claimed as a communicative approach (Lewis, 1993, 1997, 2000) in a sense that it does not only engage learners with language facts (focusing their attention on language rules) but also engage learners in a communicative atmosphere with problem-solving tasks (discovery learning). In classrooms, learners need to interact with other group members in their groups to finish the tasks. This is in contrast to the students in the conventional approach where they become passive due to teacher-led approach.

DDL approach may also claim its advantages over other language learning methods which originated in the past few decades, for example Direct Method (DM), Audio-Lingual Method (ALM), and Grammar-Translation Method (GTM). Brown (2000), Lewis (1993), and Richards and Rodgers (2001) claim that the premises of the three approaches are basically flawed. They reasoned that many of the grammar rules taught in ESL classrooms are inaccurate or plain wrong; that is, they are not based on current usage. They also pinpointed that many of the grammar rules taught are frequently incomprehensible to students for instance the aspect of *voice* in English. Because of the

difficulty, learners often fail to understand abstract meta-language or the discourse function of grammar. Besides, they also claimed that there has been very little research evidence indicating that explicit knowledge of grammar aids acquisition of the grammatical system.

Moreover, many linguists have argued that grammar is not the only basis of language acquisition but should include fluency of language use in meaningful contexts (Lewis, 2000; Partington, 1998; Stubbs, 1996). Johns (1991b: 30) mentioned that teaching grammar as a product cannot provide a full description of the complexity of the language. They are the products of "...intuition-based armchair linguistics" as evident from dictionaries, grammar books, and course books (traditional ELT materials).

Communicative Language Teaching (CLT), however, is a process approach that encourages creativity and self-discovery by students as they experiment with the language. A genuine CLT approach such as the task-based approach (Nunan, 1995, 1999) does not focus on forms (grammar and vocabulary) since its main principle in most classroom activities is to get the meaning across. Finocchiaro and Brumfit (1983, as cited in Siaw-Fong, 2005) describe some major characteristics of the CLT syllabus²¹, for instance an emphasis on meaning-making, language use in contexts, and a stress on fluency rather than accuracy in language learning.

According to Hadley (2002: 106), DDL is a more preferable approach since it "appears to utilise the strengths of both product and process approaches to teaching grammar successfully". Biber, Conrad, and Reppen (1998), Lewis (1993, 1997, 2000), Meunier (2002), and Wilson (1997) also support this view when they claim that DDL is a

²¹ Some also refer to the 'Communicative Syllabus' as the 'Communicative Approach' (Richards & Rogers, 1986).

communicative approach in a sense that it does not only engage learners with language facts by focusing their attention on language rules (form-focused instruction) (Ellis, 2005), but it also engages learners in a communicative atmosphere with problem-solving tasks (discovery learning). For example, in DDL classrooms, learners will need to interact with other group members in their groups to finish the tasks. This is in contrast to students in the traditional approach, where they become passive due to teacher-led approach. Besides, in DDL classrooms also, the role of a teacher has also changed from a teacher as a knowledge provider to a teacher as a ‘facilitator’. In the traditional language and grammar learning, the teacher is the driver and the students the passengers. In contrast, in DDL language learning, teacher plays more of the role of a co-pilot and navigator while the students take control of their own learning (Johns, 1991b).

Besides that, DDL works with authentic and genuine data as compared to the made up ones presented in the structural grammar textbooks. Learners will be presented with the concrete facts of language, showing evidence of the contexts of situation of the text. Woolard (2004: 40) asserts that concordances “provide much richer sources of co-textual information than dictionaries, and they can lead to a more exploration of the collocates of a word”. This simply means that DDL provides students the opportunity to observe a grammatical phenomenon of the language, to make hypothesis of how grammatical rules work, and to experiment to see if their hypothesis is correct (Payne, 2008). As opposed to DDL, in the traditional grammar learning, the teaching of grammar is conducted through the process of presentation of information done by the teacher. The students then practise with this information, and later they produce new contents.

In other words, DDL approach exposes learners to multiple instances of linguistic examples. They would not rely on textbooks anymore, the main companions to instruction in a traditional classroom. They will get the opportunity to discover language rules on their own through *Identify-Classify-Generalise* technique (Johns, 1991a) or *Observe-Hypothesise-Experiment* technique (Lewis, 2000). In the structural approach, on the other hand, language items will be presented through the PPP technique - presentation, practice, and production. In this approach, teacher intervention dominates the whole lesson. Flowerdew (2009) even suggests an improvement to Johns' (1991a) DDL by adding a much more 'soft' DDL. She suggested a more 'pedagogic-processing' technique namely *Illustration, Interaction, Intervention* (optional), and *Induction*. This technique, she claims, is a middle-ground between the prescriptive and descriptive grammars.

DDL encourages learners to use their intuition based on corpus evidence and derive at grammatical rules through hypotheses-making processes. Though learners in the conventional method may also use their intuition to guess the rules and practise with language, Francis (1993: 86) proposes that such a practice is unreliable because "...there is often a difference between what they think they say and they actually do say".

The DDL type of learning also trains learners to be independent, self-corrective, constructive²², and autonomous especially in finishing the communicative tasks. According to Lee & Liou (2003: 49), "...the main advantage of the DDL approach is that it encourages students to take responsibility for their language learning". This is

²² Constructivist theory: A major theme in the theoretical framework of Bruner is that learning is an active process in which learners construct new ideas or concepts based upon their current or past knowledge.

because students have become more "...liberated from teacher-directed learning" (Lee & Liou, 2003: 49). Moreover, this kind of problem-solving approach benefits learners since it "exploits the learners' natural tendency to work things out" (Bourke 1996: 14). This approach is also more advantageous and "ensuring motivation" (Bernardini, 2004: 106).

Moreover, it is argued that DDL approach could increase learners' awareness of the facts or rules of language through consciousness-raising activities or tasks. Consciousness-raising is defined as deliberate attempts to draw learners' attention specifically to the formal properties of the target language (Rutherford, 1987). Smith (1981, as cited in Odlin, 1994: 14) claims that "... 'consciousness-raising' can succeed in changing interlanguage competence". Ellis (1994: 643) informs that "...in consciousness-raising activities the learners are not expected to produce the target structure, only to understand it by formulating some kind of cognitive representation of how it works". In the structural approach, consciousness-raising to grammatical rules is increased at developing implicit knowledge of the rule only through form-focused instruction (Rutherford, 1987). In contrast, DDL raises learners' awareness of the convention of a specific genre or register both through discovery learning (inductive) and form-focused instruction (Ellis, 2001, 2005; Mauranen, 2004; Williams, 2005). Schmidt (1990, as cited in Granger & Tribble, 1998) stresses the importance of form-focused instruction, especially for adult learners since it is argued that incidental learning is not very effective with them.

Relevant to the concept of consciousness-raising is scaffolding instruction. Through scaffolding, learners' awareness of the target language is raised through consciousness-raising tasks, prepared by teachers in advance. Ha Le (2010) found in her study that her

subjects in the experimental group who were treated with both concordancing and scaffolding (in the form of question prompts) scored significantly better than those in the control group who were treated with concordancing only in the posttest and delayed posttest. This finding was in line with Boulton's study findings (2008d, 2010a) indicating that even lower proficiency students can work better with DDL given scaffolding DDL instruction. This type of instruction, according to him, may reduce some of the difficulties associated with 'hands-on' work.

Another beneficial effect of DDL is that learner motivation can be raised via the use of technology as teaching aids (Boulton, 2008a; Chambers, 2005; Todd, 2004; Turnbull & Burston, 1998). Learners of today are the virtual ones who prefer technological learning and teaching aids like computers and other multimedia in comparison to teachers' lecture and traditional books (Boulton, 2009b; Gavioli, 2001; Kern, 2006). According to Boulton (2008c), the current research on DDL as a whole has been reported positive with participating learners enjoyed DDL work because of this very nature.

Most importantly, DDL benefits learners in the study of lexico-grammatical patterns (collocations, colligations, and particularly colligations of prepositions). Celce-Murcia and Larsen-Freeman (1999) propose that colligations of prepositions be taught in context, for example through corpora. This is because collocation errors are not easy to be explained except in a large number of contexts (Lewis, 1997, 2000). VanPatten, Williams, and Rott (2004, as cited in Ellis, 2006: 87) also assert that "establishing connections between form and meaning is a fundamental aspect of language acquisition". Therefore, any grammar teaching that fails to describe the form-meaning connections of the target language must necessarily be inadequate.

To summarise, DDL approach has many benefits. It sheds light on the importance of lexis and grammar. The neo-Firthians like Sinclair, Halliday, and Hoey view grammar and vocabulary as ‘complementary’ units rather than as separate entities. Moreover, DDL approach also enhances language learning through multiple contexts and rejects the traditional approach in vocabulary teaching which emphasises ‘single words out of context’ (McCarthy, 2001: 63). Multiple exposures to language samples or contexts through technology instead of a handful of made-up samples in textbooks give the opportunity for learners to longer memory retention of the patterns (Cobb, 1997; Nation, 2001) especially where few learners have time to do reading for natural, multi-textual lexical acquisition (Cobb, 1997; O’Keefe et al., 2007). Finally, DDL has become a stepping stone for learners to try out their potentials as ‘travelers’ or ‘language researchers’ compared to the traditional role (Johns, 1991a, 1991b).

2.1.4.2 The Limitations of DDL

While the literature has shown many great potentials of DDL, we cannot ignore the fact that DDL, as does any other approach or technology, has its many limitations as well. This section will also review the shortcomings of DDL in the light of the traditional approach.

The first attack on DDL is the data itself. DDL is a data-driven approach, where data have become very important and need to be authentic. However, authentic data are sometimes rather daunting to be interpreted especially for lower proficient learners (Balunda, 2009; Boulton, 2009c; Gavioli, 2005; Hadley, 1997; Koosha & Jafarpour, 2006; Yoon & Hirvela, 2004). Another limitation of DDL is concerned with the term ‘authentic’. Widdowson (1996) has constantly held a negative view towards the use of

authentic data in classrooms. To him, authentic does not suggest meaningful in sociolinguistic sense, thus rejecting the notion of culture and society in texts as mentioned by Firth (1957b).

In addition, many scholars have doubted the practicality and efficacy of DDL as a teaching method that can improve learning (see Boulton, 2010a; Chambers, 2004; Gaskel & Cobb, 2004; Kern, 2006; Jarvis, 2004; Salaberry, 2005; Wilson, 1997). Salaberry (2001) argues that the use of ICT in classroom allows ‘technology-driven instruction’ to take over from a ‘pedagogically-driven approach’. And this, according to him, is a permanent danger.

Meanwhile, Jarvis (2004) expressed doubts whether DDL can guarantee an improved learning or motivation. Chambers and Kelly (2004: 1) also felt the same thing when they asked others to think whether DDL is “a good thing pedagogically”. Boulton (2010c: 14) made a similar claim that “DDL is certainly no panacea to language learning, as is any other approach or technology”.

Furthermore, success with DDL in language learning does take into consideration of learner language learning styles and motivation (Boulton, 2009b). Many researchers have claimed that DDL may not be suitable for all learner profiles (see Boulton, 2009b; Cresswell, 2007; Chambers, 2005; Flowerdew, 2009; Tyne, 2009). Kaszubski (2008: 174) found that his students fall into three categories in doing corpus consultation - “adopters, minimal users, and refusers”, and this was presumably due to their learning style preferences. Some of his subjects were found to adapt to DDL more quickly (‘adopters’), while others were found hard to adapt to it (‘refusers’).

Similarly, in Boulton's (2009b) study, he reported that there was some correlation between learners' receptivity to DDL and learning style preferences. He thus concluded that DDL seemed to appeal to those with the strongest visual preference. Yoon (2008: 45) also reported that "a wide variety of individual experiences and learning contexts were involved in deciding the level of the students' willingness and their degree of success in using corpora". Chambers (2005: 119) also suggested that "differences in motivation or learning styles may explain the considerable variation in the success of the [DDL] activity".

Besides, the use of hands-on concordancing (direct application of corpora in classrooms) has left learners to ponder at large data (Hafner & Chandlin, 2007; Todd, 2000). Many students are incapable of or cannot endure learning without teacher supervision. To some of them, free or 'serendipitous' corpus exploration (Bernardini 2000) requires training or previous experience. And according to Mukherjee (2006: 14), "it is doubtful... whether this extremely autonomous corpus-based activity can be fruitfully put into practice in the reality of ELT classrooms". Students are 'technophobic' to direct application of DDL (see Bernardini, 2002; Mukherjee, 2004; Seidlhofer 2000). And even if they are not perhaps as 'technophobic' as those in Bernardini's (2002), Mukherjee's (2004), and Seidlhofer's (2000) studies, students are more comfortable with the traditional roles of teacher as knower and learner as recipient of knowledge, the roles claimed by Boulton (2009b) to be stronger in France than in some other cultures.

As mentioned in Chapter One, pedagogically hands-on DDL also challenges the language teaching approach which has been a tradition for so many decades in Asian

context. While DDL is proven to work in Europe (Boulton, 2008c, 2008d, 2009c, 2010; Johns, 1991a, 1991b; St. John, 2001), we do not know to what extent it works in Asian countries, for instance in Japan, Taiwan, China, and Malaysia. ESL Asian learners have been exposed to the conventional approach (CA), for example Audio Lingual Method (ALM) for decades despite the introduction of more modern approaches to English language learning. The CA emphasises the role of teachers as sole knowledge providers. Learners only become the recipient of knowledge, taking more of a passive (deductive) approach to language learning. This type of learning contradicts the one proposed by DDL; that is, to take an active role in the process of learning by hypothesising and formulating rules. This learning approach “...does not seem to fit too comfortably into the received model of Asian pedagogy” (Smith, 2009 : 2). Yeh, Liou, and Li (2007) also claim that the educational system and general background culture in Asian setting, for example in Taiwan, encourages deductive approach.

Besides students, DDL is also a challenge for teachers. The application of DDL requires teacher to give a high commitment, and they need to be technology savvy. Some should be threatened by technology and even some become ‘technophobics’. Teachers’ resentment to DDL is partly due to their “resentment of new technology and the time spent mastering it, as well as the risk to face in front of learners who are possibly more literate than the teachers in ICT (Information and Communication Technology)” (Boulton, 2010c: 3). DDL is indeed a ‘perpetual challenge’ (Johns, 2002) both for teachers and learners. Direct application of DDL is not the true spirit of DDL (Boulton, 2010c). This is in contrast to the original motivation of using the data as suggested by Johns (1991b) with learners; that is, the use of handouts or printed concordance outputs.

To summarise, the limitations of DDL are due to many factors - its practicality as a new approach replacing the traditional approach, different learners' learning styles, technophobic students, teachers' resentment of new technology, and some other barriers for instance technical and logistic aspects (Johns, 2002). These limitations, as lamented by Boulton (2009a), Leech (1991, 1997), and Thompson (2002), have resulted in lack of research interest and application of DDL in classrooms despite more DDL resources available online.

2.2 Collocation

This section provides an overview of collocation, colligation, and the theoretical framework that underlies the study of collocation in general.

Collocation was coined by Firth (1951: 124), the Father of collocation in his famous quotation - "You shall know a word by the company it keeps". Many other definitions were given by linguists to refer to collocations including 'composite elements' (Mitchell, 1971), 'idioms' (Cowie, 1978), 'gambit' (Keller, 1981), 'multiword lexemes' (Jackson, 2002), 'formulaic expressions' (Wray, 2000; 2002), 'fixed expression' (Moon, 1994), 'lexical phrases' (Nattinger & DeCarrico, 1992), or 'multiword items' (Moon, 1997). Despite various other terms given for collocations, linguists and collocationists are of mutual consent that collocations are word combinations focusing on "the occurrence of two or more words within a short space of each other in a text" (Sinclair, 1991: 170).

Firth introduced two types of collocations - lexical and grammatical collocation (colligation). Though lexical collocation was profoundly explained, colligation was not given the same treatment except by its shallow definition. His definition for grammatical collocation is restricted only to “classes of words, sentences, or similar categories” (Firth, 1957a: 14).

Collocations also have many characteristics, and some of them include semantic opacity (fixed collocations, e.g., idioms), arbitrariness (the same conceptual meaning expressed in different ways, e.g., ‘strong tea’ but not ‘weak tea’), and varying degree of restrictedness (free to fixed combinability, e.g., ‘have dinner (free) vs. ‘blow your own trumpet’ (fixed)).

There are many approaches to collocations. Firth pioneered the lexical composition approach who proposes that a word’s meaning can be derived from the common occurrence of two words next to each other along the horizontal axis (its contextual meaning). The second approach is the semantic approach. This approach was put into work by the Russian tradition for example Mel’cuk (1998) and his colleagues, who attempted to investigate collocation on the basis of a semantic framework. The approach also keeps lexis as distinct from grammar. Third is the structural approach, known also as lexico-grammatical approach. The proponents of this approach argue that collocations should be determined by structure and occur in patterns. And this must include grammar. To them, lexis and grammar cannot be separated. Among the proponents of this approach include Benson et al. (1986, 1997), Bolinger (1976), Hoey (1991a, 1997c, 2002, 2003, 2004a, 2005, 2006), Hunston and Francis (2000), Mitchell

(1975), and Sinclair (1966, 1987, 1988, 1991, 1996, 1997, 1998, 2004a, 2004c). They have worked with corpus linguistics and large corpora for linguistic analyses.

2.2.1 Colligation

Hoey (1998) revised Firth's (1951) definition of colligation to mean the grammatical company a word keeps or avoids keeping. This definition was used in the present study to describe colligations of prepositional patterns. However, what constitutes colligations of prepositional patterns has not been clearly defined. To compensate for this lack, Benson, Benson, & Ilson's (1986, 1997) definition was employed in this study. Benson et al. undertake a structural approach to the study of collocation and their selection of collocations is based on restriction and frequency-based approach. They divide collocations into lexical and grammatical collocations (colligations) with several sub-types. Lexical collocations are defined as combinations of content words, for example noun, verb, adjective, and adverb, with other lexical items. Lexical collocations are further divided into seven sub-types including Verb + Noun/Pronoun (e.g., *come to an agreement*), Adjective + Noun (e.g., *reckless abandon*), or Noun + Verb (e.g., *blood circulates*).

Meanwhile, grammatical collocations are defined as the combinations of content words with a prepositional or grammatical construction, and they are further divided into eight sub-categories such as Noun + Preposition (e.g., *blockage against*), Noun + to-infinitive (e.g., *a compulsion to do*), and Noun + that-clause (e.g., *reached an agreement that...*). Colligations of prepositions constitute the construction comprising nouns, verbs, or adjective plus prepositions (see the categories G1, G5, and G8D, Benson et al., 1997:

xvi, xviii, xxi). Further definitions of colligations of prepositions are given in Section 2.3.

2.2.2 Patterns and Their Functions

Patterns of text are instances of language use. They are communicative events, not grammatical categories. Therefore, they do play certain functions in the society. This construes Halliday's (1991: 16) statement that "If meaning is function in context, as Firth used to put it, then equivalence of meaning is equivalence of function in context". Halliday's SFG (Systemic Functional Grammar)²³, particularly his concept of register, was adopted in the present study to explain the functions of colligations of prepositions in legal discourse.

The basic functions of prepositional patterns as outlined by the Hallidayan are, among others, to express **location** (e.g., *at, in, on, under, above*), **extent** (e.g., *for*), **source** (e.g., *for*), **manner** (e.g., *by, through, with*), and **agent** (e.g., *by*). Besides that, Halliday and Hasan (1976) also state that lexico-grammatical patterns, including prepositional phrases (e.g., *in addition, in spite of, on the other hand*) may also function as **text cohesion** or **discourse markers**. The functions of prepositions may differ when used in legal discourse. For example, the preposition *by* underlined and bolded in the following sentence: *If it is a mere term of the contract, the non-approval **by** the Foreign Investment Committee (FIC) of the deal certainly defeats the sale.*, signals the function of **authority** in legal discourse instead of **agent** or **manner**. These two sources of information - the Hallidayan outlines of the semantic-functions of prepositional patterns

²³ The basic tenet of the Systemic Functional Grammar (SFG) or Systemic Functional Linguistics (SFL) is that language structure is integrally related to social function and context. 'Functional' refers to the work that language does within a particular context. 'Systemic', on the other hand, refers to the structure or organisation of language so that it can be used to get things done within those contexts. This refers to the system of choices (Halliday, 1994).

and multiple contexts in the concordance lines would enhance learner potentials in arriving at the semantic-functions.

2.2.3 Collocation in ELT: The Lexical Approach

Ellis (1996, 1997) argues that advanced proficiency and accuracy in spoken and written production are essential for effective functioning in an academic setting. Therefore, specific instruction is required to attain a high level of language proficiency. Specialised languages, for example legalese, are pervasive with prefabricated patterns or word combinations in the form of collocations and prefabs. As learners were reported to have a high tendency to deviate from following the right convention of collocations (see Howarth, 1998; Nesselhauf, 2003, 2005), many researchers and linguists have made a call upon explicit teaching of collocations in order to raise students' awareness or noticing of collocations in academic texts (see Granger, 1994, 1998; Howarth, 1998; Hsu, 2002, 2007; Lewis, 1997, 2000; Mahmoud, 2005). Lewis (1993) can be claimed as the proponent of the Lexical Approach in ELT. He worked out with other collocationists, for example Woolard, Hill, and Conzett, in publishing the model teaching of collocation in their notable publications (1997 & 2000). However, although collocations have been claimed as essential to be introduced in classrooms as a means of promoting learner communicative competence, very few researchers have focused their research on collocation in normal classrooms.

Furthermore, even if collocation studies have been conducted in classroom setting, the focus is more on lexical collocations, not on colligations despite the fact that many collocationists, for example Hoey (2002) and Shiavosh (2001), suggest the importance

of focusing on colligational aspects in teaching collocations. Hsu (2007) also claims that among those researchers who conducted instructed collocation studies in classrooms in Taiwan including Chu (2006), Hsu (2002), Lien (2003), and Liu (2000a), many of them only focused on teaching lexical collocations in classroom, not grammatical collocations.

The emergence of lexical syllabi has provided suggestions for including and emphasising on lexical phrases or word combinations in classroom teaching such as Willis' lexical syllabus (1990), Nattinger and DeCarrico's lexical syllabus (1992), and Lewis' Lexical Approach (1993). While lexically-oriented and corpus-informed approaches in language teaching were put forward by Renoulf and Sinclair (1991), and they were further improved by Willis' lexical syllabus (1990), Lewis' Lexical Approach is "less concerned with issues of corpus linguistics but more with the needs of the classroom" (Danielsson & Mahlberg, 2006: 368). The approach "...develops many of the fundamental principles advanced by proponents of Communicative Approaches" (Lewis, 1993: vi).

This approach has provided step-by-step explanations and instructions on how to teach collocations along with supplementary materials and practices (see Lewis' *Lexical Approach* (1993) and *Teaching Collocations: Further Developments in the Lexical Approach* (2000)). This approach is communicative in nature, and it does not follow the traditional approach which separates lexis from grammar. It takes a more balanced or integrated approach - the lexico-grammatical approach. Lewis (1993) justifies that the components of language patterns or chunks of words, both the lexical items and their grammatical counterparts cohere closely together forming a semantic unit. He further

argues that by expanding a range of memorised whole word combinations, it is possible to achieve proficiency level in mastering the syntax of a second language. It also would avoid learners from making many grammatical mistakes because they would generate sentences on the basis of the ‘idiom principle’, not the ‘open-choice principle’.

However, Granger (1998) claims that these syllabi are not adequate in providing resources for teaching and learning of prefabs, for example collocations and formulae. According to her, “We possess insufficient knowledge to what role they [prefabs] should play in L2 teaching; we do not know what to teach, how much to teach (some studies suggest to teach only productive collocations and some suggest to focus on teaching only the collocations that learners make errors with), and least of all how to teach, hence the need for empirical work” (Granger, 1998: 159). Another concern she expresses is that prefabs are language specific, and because of the specificity, they require a wide variety of large computer corpora for collections of teaching materials, thus promoting a corpus-driven approach to language teaching and learning, known as DDL approach originally proposed by Johns (1991). The question is: Is DDL approach to language teaching and learning the lexical approach? The answer is yes. In fact, Mahlberg (2006: 369) claim that more “recent applications of the lexical approach have profited from the support of corpus linguistics”. Besides, many proponents of Lewis such as Woolard (2000) and Conzett (2000) have used corpus data and concordancing to teach collocations to their students.

2.2.4 Collocational Competence

The word ‘competence’ was originally coined by Chomsky (1965) to mean linguistic competence (the underlying knowledge of first or second language rules) and ‘performance’ (the actual production). Hymes (1972) however rejected this distinctive notion and motioned that ‘competence’ represents both a language user’s linguistic competence and fluency of performance. He relegated the term ‘competence’ to ‘communicative competence’ to mean the ability to know, not only whether a sentence is formally possible (grammatically accurate sentence), but also whether it is psycholinguistically feasible, sociolinguistically appropriate, and fluently used by language users. Meanwhile, Widdowson (1978: 3) considers communicative competence as linguistic performance; that is, “the simultaneous manifestation of the language system as usage and its realisation as use”. Therefore, while ‘usage’ equates correctness, ‘use’ signifies appropriacy.

Meanwhile, Hill (2000) regards communicative competence as collocational competence; that is, the ability to produce language which is fluent, accurate, and stylistically appropriate. He suggests that collocational competence should be considered as the key factor for learning a language. Lewis (2000) however regards collocational competence as an ability to perform three distinct characteristics - accuracy, fluency, and complexity. While accuracy precedes fluency in the conventional approach, Lewis (2000) suggests for a reversal of the approach. He claims that “accuracy is based on fluency”, not the other way around (Lewis, 2000: 174), and fluency could be achieved by increasing learners’ awareness of the complexity of language, particularly knowledge of more colligational patterns.

To sum up, communicative competence has been relegated to ‘collocational competence’ (Hill, 2000), ‘collocation proficiency’ (Granger, 1998; Howarth, 1998); ‘pragmalinguistic competence’ (Nattinger & DeCarrico, 1992) or ‘fluency’ (Fillmore, 1979; Zhang, 1993). Possessing collocational competence equates possessing a large stock of prefabs or routines and patterns of a target language (TL), for example legal language. This is because collocations are considered a subcategory of formulaic language. And since collocation refers to both lexical and grammatical collocation (colligation), collocational competence may also refer to lexical collocational competence and colligational competence.

Learner proficiency is conventionally measured in terms of linguistic accuracy (Chomsky, 1965; Roulet, 1975). Learner ability to produce sentences or utterances according to the formal rules was highly appraised. Quite often, however, there are occasions whereby these groups of ‘proficient’ learners produce sentences that are grammatically error-free but were argued by Bahns and Eldaw (1993), Brown (1974), Gozdz-Roszkowski (2004), Mahmoud (2005), and Pawley and Syder (1983) as simply not used by the native speakers and the discourse community that uses the language.

Based on the empirical research conducted in the field of collocation, some researchers have revealed the existence of a positive correlation between the production of collocation with learner competence or general English proficiency (Al-Zahrani, 1998; Chang, 1997; Hsu, 2002; Koosha & Jafarpour, 2006). However, Bahns and Eldaw (1993) and Howarth (1996) observed that the use of collocations did not correlate with the learner proficiency due to the learners’ fear of taking risks.

2.2.5 Collocation Errors and their Factors

Lack of competence of collocations is reflected in learner collocation errors. Flowerdew (1999), Koosha and Jafarpour (2006), and Zarei (2002), for example, claim that the main factor contributing to learners' producing errors with prepositions is their insufficient knowledge of the collocational properties which either precede or proceed prepositions. The errors that learners produce indicate their level of collocational or colligational competence. The errors produced also inform us that learners are producing interlanguage, the language which is neither theirs nor the target language. It is a 'transitional and variable', though maybe somewhat 'fossilised' progressing along the interlanguage continuum (Ellis, 1994, 2005), and which is mostly employed by learners to make use of the target language (Nemser, 1971, as cited in Richards, 1974). Persistent collocation errors in learners' collocations which may not change despite progress in other areas of language development may lead to fossilisation. But why do learners produce collocation errors?

According to Ellis (1994, 1985, 1986, 1990, 1997), Gass (1997), and Gass and Selinker (1983, 2008), external and internal factors and individual differences may influence second language (L2) learners' proficiency or rate of L2 acquisition. Therefore, some of the mentioned factors, for example L2 learning contexts (natural or classroom settings), linguistic interference or language transfer, learner strategies, learner attitudes, and previous exposure to the L2, may have an impact on learner acquisition of collocation.

Koosha and Jafarpour (2006) categorised collocation errors into two - interlingual and intralingual interference, taking after Richards & Sampson's (1974) two types of

interference. Interlingual interference is defined as the negative transfer caused by interference of mother tongue (L1) exhibited in sentences in the target language (Richards & Sampson's, 1974). In this case, learners may rely heavily on their mother tongue to find the equivalent versions of L1 collocations with L2's, and if there are no equals, they will transfer the ones they have already had in their L1 mental lexicon, mostly through L1 translation strategy.

Many studies have been conducted to investigate learner interlanguage in colligations of prepositions from the past two decades until present. To review, these include the studies by AbiSamra (2003), Abu Naba'h (2013), Agha (2007), Bazzaz, Arshad, and Abd Samad (2011), Bennui (2008), Bhela (1999), Burt and Dulay (1984), Díez-Bedmar (2005), Keshavarz (1993), Kharma and Hajjaj (1997), Khobandeh (2007), Saengchan and Schmitt (2005), and Siavosh (2001). In a study conducted by Pongpairoj (2002) for example, he investigated prepositional errors in the paragraphs written by 100 first-year Faculty of Arts students at Chulalongkorn University. It was found that the Thai preposition *on* was wrongly used in English sentences. They include: (1) *There are birds on the sky.*, and (2) *The boy is sleeping on the bed.* The acceptable answers should be: (1) *There are birds in the sky.*, and (2) *The boy is sleeping in the bed.* These were all caused by direct translation of Thai words into English, the negative transfer errors.

Meanwhile, intralingual interference is the “items produced by the learner which reflect not the structure of the mother tongue, but generalisations based on partial exposure to the target language” (Richards & Sampson, 1974: 6). These include overgeneralisation - one deviant structure created in place of two regular structures. For example, in the

sentence *He aware of me.*, the be-verb is missing. The second one is ignorance of rule restrictions - the application of rules to contexts where they do not apply. For instance, in the sentence *He asked to me*, the verb *asked* must not be followed by the preposition *to*. In this case, the learner ignored the rule of collocation restriction by analogy, a major factor contributing to the misuse of prepositions. Richards and Sampson also included other erroneous samples, for example *met with her* or *married with her*, in which no prepositions are required. Meanwhile, *in this purpose*, *at the first time*, and *a reason of* are the situations where the underlined prepositions should be replaced with *for*.

The other two types of errors include incomplete application of rules and semantic errors (false concepts hypothesised), resulted from faulty comprehension of distinctions in the target language. Learner incomplete application of rules is manifested in the missing -ing form in the sentence *He was aware of my stand*. Meanwhile, learner faulty comprehension of distinctions in the target language is manifested in the following sentence: *He informed to me*. The learner was confused with the use of preposition *to* in the following sentence: *He talked to me*.

2.3 Colligations of Prepositions

In the above section, we have learned about some important aspects of collocations including definitions, approaches, characteristics, and the theoretical framework that shapes the study of collocation in this research, and the importance of collocational competence to ESP learners, for example law students. We may have also noticed the two major contributors to learner problems with collocations - L1 transfer and difficulty

with L2 collocations themselves. The background information as such is considered essential to have a better understanding of the concept and aspects of colligations of prepositions to be discussed in the following sections.

2.3.1 Prepositions

Prepositions are an important and frequently used category in English (Littlefield, 2006; Sinclair, 1991). They are traditionally categorised as function words, the grammatical items or ‘closed system’ (Halliday et al., 1964). Several definitions are given for prepositions. A preposition is defined as “a word which relates a substantive, its object, to some other word in the sentence” (Roberts, 1954: 222); “a relationship between two entities” (Quirk, Greenbaum, Leech, & Svartvik, 1972: 143); “a word that indicated a relation between the noun and pronoun it governs and another word, which maybe a verb, an adjective or another noun and pronoun.” (Huddleston, 1984: 336), and “linking words that introduce prepositional phrases” (Biber et al., 2002: 28).

2.3.2 The Forms of Preposition

There are two forms of prepositions - simple and complex. According to Essberger (2009), there are more than 150 prepositions in English. 94 of them are simple prepositions and the other 56 are complex prepositions. However, Fang (2000) claims that there are 284 different prepositions in a corpus study of English. 88 of them are simple prepositions and 160 more are complex prepositions. See Table 2.2 for the list of some simple (single-word) prepositions as adapted from Quirk, Greenbaum, Leech, and Svartvik (1985).

Table 2.2: Single-word prepositions (adapted from Quirk et al., 1985)

about	at	concerning	in	outside	to
above	before	considering	inside	over	towards
across	behind	despite	into	past	under
after	below	down	like	per	until
against	beneath	during	near	plus	upon

Simple prepositions alone can have more than one meaning. They are polysemous lexical items (Taylor, 1993), and therefore, can be very confusing. The prepositions *in*, *on*, *at*, *to*, *for*, *of*, and *from*, for example, are prepositions which function to show *location*, *place*, *direction*, and *time*. An interesting fact about simple prepositions such as *on* and *at* is that they have their own patterns, see for example, *on Monday* and *at noon*. It is against the convention to replace *on Monday* with *at Monday* and *at noon* with *on noon*. These are patterns of restriction which occur at a single-word preposition level. Allerton (1982, as cited in Schmitt, 2000) and Carter (1987) consider this patterning as neither grammatical nor lexical collocations but rather the third type of collocation.

Meanwhile, complex prepositions are fixed type of prepositions consisting of multi-word units whose meaning cannot be derived from the meaning of their parts (Jabbour-Lagocki, 1990). They consist of two-word, three-word, and four-word prepositions. Lewis (1993) calls these set of prepositions as polywords while others regard them as structural multi-word sequences or lexical bundles (Biber et al., 1999, 2002) or clusters (Taylor, 1993; Celce-Murcia & Larsen-Freeman, 1999). The examples of them include *of course*, *according to*, *ahead of*, *by means of*, and *in accordance with*. The preposition *of* in the pattern *of course*, for example, always collocates with the word *course* and there is no way that these two words can be separated (Sinclair, 1991). The

combination of these two words has become fixed and is regarded as one word or a single preposition (a lexical unit) instead of two or three words. They do not change forms, and are thus fixed collocations. The examples of two-word prepositions are listed in Table 2.3 and three-word and four-word prepositions in Table 2.4.

Table 2.3: Two-word prepositions (adapted from Quirk et al., 1985)

according to	away from	inclusive of	pertaining to
ahead of	back of	inside of	preliminary to
along with	because of	instead of	preparatory to
apart from	close to	irrespective of	prior to
as for	contrary to	near to	pursuant to

Table 2.4: Three-word and four-word prepositions (adapted from Quirk et al., 1989)

at a cost of	in comparison with	in the case of
as opposed to	in compliance with	in the face of
at the expense of	in connection with	in the light of
at the hands of	in contact with	in the process of
at variance of	in contrary to	in view of

2.3.3 The Status of Prepositions

As mentioned elsewhere in this study, though prepositions are traditionally assigned as function words or a closed system, preposition is a controversial part of speech, partly due to its ‘hybrid’ or ‘semi-lexical’ functions - they have both lexical and grammatical functions (Littlefield, 2011). Some prepositions, unlike other function words such as articles or quantifiers, are considered as taking a lexical category (Grimshaw, 1991) and bear semantic contents (Rauh, 1993, as cited in Littlefield, 2011). In fact, Bordet and Jamet (2010) assert that not only complex prepositions, for example *instead of*, *in view*

of, or *in ignorance of* bear the semantic functions or meanings (strong semantic contents), but also simple prepositions, for example *about*, *to*, *above*, *at*, *in*, and *on*. The fact that prepositional items do bear semantic content is also recognised by Halliday (1994). He claims that all prepositional phrases, including the nominal groups containing the preposition *of*, do have functions. Though the meanings of colligations of prepositions in the present study could be deduced from the co-texts and contexts of the patterns in the concordance lines, Halliday's (1994) and Halliday and Matthiessen's (2004) assignments of the semantic functions of colligations of prepositions were taken as a point of reference in the present study.

2.3.4 Types of Colligations of Prepositions

Single-word prepositions may combine with other word categories to form colligations of prepositions or prepositional phrases. The combinations are less restricted; that is, some word categories may change the form and meaning of each lexical and grammatical item in the combinations, and their meanings can be figured out by their parts. These include the combinations of prepositional items with major lexical categories - nouns, verbs, and adjectives.

Many linguists and lexicographers such as Benson et al. (1986, 1997) and Schmitt (2000) call these word combinations as grammatical collocations (colligations). Colligations of prepositions are typical, recurrent combinations of verbal, nominal, or adjectival bases with prepositional collocators (Benson et al., 1997). In the *BBJ Dictionary of English Word Combinations*, such combinations are referred to as a sub-class of grammatical collocations (see categories G1, G5, and G8D in Benson et al.,

1997: xvi, xviii, xxi). Some examples of colligations of prepositions arranged according to their categories are shown as below:

a. Noun + Preposition

Example: *blockade against, apathy towards, damage to*

b. Adjective + Preposition

Example: *angry at, afraid of, fond of*

c. Verb + Preposition

Example: *adhere to, consists of, serve as*

The Noun + Preposition category was extended in the present study to include the patterns as the following:

a. NP + P + NP

Example: *the communication of acceptance, manifestation of assent, and instantaneous means of communication*

b. PP + NP

Example: *on behalf of the offeror, in the middle of his reply, in the case of the agreement*

c. VP (particle) + P + NP

Example: *take into consideration*²⁴ of the term of contract*

d. VP (particle) + P + NP

Example: *come to the knowledge* of the offeror*

²⁴ The patterns *take into consideration* and *come to the knowledge* (in asterisks) are particle constructions or idiomatic expressions, and they are fixed patterns.

Benson et al. (1986, 1997) disregard the combinations consisting of conjunctions and adverbs plus prepositions, for instance *because of*, *instead of*, *ahead of*, *close to*, and *next to*, though they were accepted in this study. Their discussion also does not include noun phrases preceded by prepositions, for example *for this reason*, *in my opinion*, and *from my point of view*, and word clusters such as *in lieu of*, *on account of*, and *in the name of*, though the patterns were employed in this study. They also do not include in their dictionaries the idiomatic expressions, the meanings which cannot be derived from the meanings of their parts, for instance *once in a blue moon*, *pave the way for*, or *make fun of*. Similarly, though derived prepositions and their original patterns, for example *regarding* and *with regard to* are not accepted by Benson et al., they were taken into account in the present study.

Phrasal verbs (the combination of V + Particle), however, are considered by Benson et al. (1986, 1997) as prepositional patterns. Phrasal verbs are defined by Celce-Murcia and Larsen-Freeman (1999: 426) as “made up of two (or more) parts that function as a single verb”, or an ‘idiomatic expression’ (Halliday et al., 1964; Lewis, 2000). They are called phrasal verbs simply because they usually consist of a verb plus an adverb (particle). This particle is different from preposition because it can “fit into more than one category” (Celce-Murcia & Larsen-Freeman, 1999: 426). This means particle can take up several positions - before or after the NP (Noun Phrase). An example of particle coming before the NP is in the following sentence: *He called off the meeting*. Meanwhile, a particle coming after the NP is exemplified in the following sentence: *He called the meeting off*. Phrasal verbs may also take specific prepositions to form a unit, for example *put up+ with*, *give in+ to*, and *keep up + with*.

From the above definitions of colligations of prepositions, we may learn that the potential of two lexical items (a content word and a preposition) to form a single unit called pattern is based on the fact that each of the lexical items in the pattern contributes to its meaning. When this occurs, the patterns are termed ‘bound prepositions’ (Biber et al., 1999; Essberger, 2009). This indicates that the meaning of the patterns rely on the prepositions which collocate with the content words preceding them. And ‘bound prepositions’ are to be distinguished from free prepositions, the situation where a preposition does not influence the meaning of the content word coming prior to it. Most of the time, this occurs in situations where verbs are used with prepositions indicating place (e.g., *at, in, on*), time (e.g., *for, during, after*), and equipment or companions (e.g., *with*) (Hunston & Francis, 2000). These authors exemplified the different usages of the preposition indicating place (*at*) in the concordance lines in their book. For example, in line 1 of the concordance ‘*om practice in that England will train at Wembley on the Saturday before*’, the pattern ‘train at’ is not a bound preposition but rather a free one. This is in contrast to the pattern ‘trained as’ in line 4 of the concordance, ‘*Feb 15), interesting. I trained as a nurse in Brisbane*’, where it is considered as a single unit, a bound preposition.

2.3.5 The Strength of Collocability of Prepositional Patterns

Prepositions do play their functions as lexical items. This means they carry semantic contents. But when used in patterns (colligations of prepositions), do they also have their semantic part to contribute to the whole pattern? And if they do, which of the two items is stronger? Rankin & Schiffner (2009) and Sicherl (2004) found that the prepositions used in prepositional phrases are not devoid of content but they do

contribute to a certain extent to the colligational base. They even share a similar behavior in terms of the strength of collocability with that of lexical collocations. In other words, the patterns were observed to have a two-way syntagmatic affinity. The stronger leads from the dominant word, for example nominal, verbal, and adjectival to the preposition, while the weaker leads from the preposition to the lexical word. This essentially means that each item in a colligation of prepositional pattern may influence each other though the strength of collocability is unequal.

2.3.6 The Semantic-Functions of Prepositional Phrases

“Maybe one of the greatest challenges presented by prepositions is their meaning, since languages carve up semantic territory in different ways” (Celce-Murcia & Larsen-Freeman, 1999: 404). And this is true since prepositions are polysemous (Taylor, 1993). Many cognitive linguists including Dirven (1993) and Lee (2001) argue that prepositions divide up physical, temporal and abstract space in different ways, and prepositions in different languages might reveal such differences. In order to solve this problem, cognitive linguists use concrete examples rather than the concepts. They use prototypical examples called mental image schemas such as a robin to denote a bird. Therefore, many spatial prepositions (prepositions indicating location, time, duration, and space) are prototyped with objects in space.

Taylor (1993) construes mental image schemas with two entities - the ‘figure’ (Trajector (TR)) or ‘subject’ (Lindstromberg, 1998) and the ‘ground’ (Landmark (LM)). The two terms refer to two entities in a scene or an event. The trajector is a moving or static object (e.g., a cat) whose movement or location is specified with

respect to a reference point (e.g., a basket), which is the landmark. The following is a graphic representation of the image schema of *in*, as adapted from Lindstromberg (1998: 165):

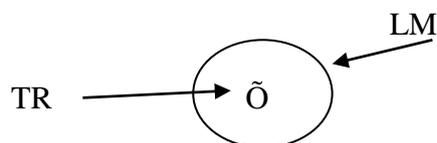


Figure 2.3: The prototypical figure of *in*

However, instead of having the spatial and literal meanings for *at*, as in *at the post-office* (indicating place) or *at noon* (indicating time), prepositions also have their extended definitions, as in *at work* (indicating state), *at full speed* (indicating manner), and *laugh at the funny jokes* (indicating cause). This may impose another problem since metaphorical definitions are hard to be schematised. Celce-Murcia and Larsen-Freeman (1999) proposed a series of concentric circles to highlight the physical and mental representations of, for example, preposition *at*. In their proposal, all the instances of preposition *at* are bound within an enclosure. The enclosure is more literal and spatial at first (e.g., *at* + place in *at the library*, *at* + time in *at 10:00 a.m.*) before becoming more abstract and extended (e.g., *at* + state in *at work*, *at* + manner in *at full speed*, *at* + cause in *laugh at funny jokes*). Figure 2.4 illustrates the concentric circles, as adapted from Celce-Murcia and Larsen-Freeman (1999: 409).

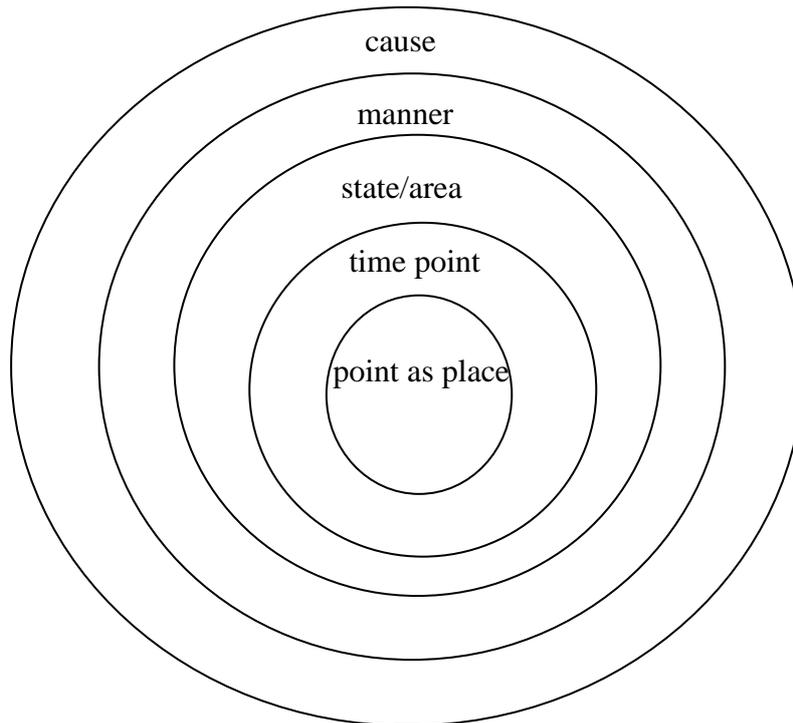


Figure 2.4: The concentric circle

Meanwhile, Bloor and Bloor (1995), Downing and Locke (2006), Halliday (1994), and Halliday and Matthiessen (1994, 2004) are among the proponents of the Systemic Functional Grammar who propose that the fundamental components of meaning of prepositions are their functional components. Prepositional patterns do play their roles in any speech events. They show their communicative functions in ‘contexts of situation’ or the social functions a community use (Halliday, 1973). The social functions determine “the pattern of language varieties... or registers... of a community or of an individual, ... derived from the range of uses that language is put to in that particular culture or sub-culture” (Halliday, 1973: 22). This meaning will vary according to specific registers, fields, and text-types. In a Hallidayan transitive clause, it normally voices five choices - the subject, predicate, verb, complement, and adjunct. Prepositional phrases are expressed as circumstantial adjuncts and post-modifiers. Downing and Locke (2006), Halliday (1985, 1994), and Halliday and Matthiessen

(2004) propose more than nine main types of circumstantial semantic functions, for example *location, direction (path) and goal, extent, manner, cause, contingency, accompaniment, role, matter, and angle*. These ranges of meanings were adopted in this current study as a point of reference prior to the students' work with the concordance lines.

2.4 Legal Discourse

In the previous section, we were introduced to the basic concept and aspects of colligations and prepositions - the types of prepositions and their colligations. We were also highlighted to the problems and difficulties the learners had faced in the acquisition of the patterns. We begin this present section by introducing to the readers a brief description of the language of the law (legal English or *legalese*), and then describing colligations and prepositions in legal context, followed by showing examples of law students' problems and difficulties in the acquisition of colligations of prepositions. While spoken discourse is also of major importance, the focus of attention of this present study is written legal genre, in particular, legal academic textbook of law of contract genre.

The term 'legal' simply refers to anything related to law, lawyers, and court. Meanwhile, the term 'discourse' refers to language in use or 'text in context' (Halliday, 1994). The language variation according to use is referred to register (speech style), the variation which is determined by the 'field, 'tenor', and 'mode'. Legal discourse is shaped by the contexts of situation, both the extra-linguistic (the legal discourse community), and linguistic (the lexico-grammatical patterning of legal texts). Legal

discourse warrants its status as a sub-language of the LSP due to its restricted expressions and its formal or near-formal written variety (Halliday et al., 1964; Sinclair, 2004). Danet (1980, 1985) even prefers to label it a 'register' due to this formal and distinctive variety.

2.4.1 The Properties of Written Legal Discourse

Language plays a very critical role in legal discourse. To simply put, law would not exist without language. Law plays two main functions - regulative (to regulate relationships between judicial entities, for example marriage ceremonies and constitutive (to restore), for instance social order between individuals. Besides, there are also numerous genres (defined as a particular language practice, see Swales, 1990) within the field of law itself, for example contract law (the focus of attention of this study), torts law, criminal law, constitutional law, and international law. There are also many varieties of text types within an individual genre itself. For example, within the genre of the law of contract, the text types may include contracts, statutes, rules and regulations, judgements, legal textbooks, journal articles, books of cases, and acts. Legalese is well-known for its conventionalised and distinctive style, full of ritualised and formulaic expressions, as realised in its syntactic and lexical features and formal register, and which makes it hard for laymen to comprehend (Danet, 1980, 1985; Hiltunen, 1990).

The syntactic structure (syntax) of legalese is always characterised as stereotypical and complicated. This is due to the function of legal texts itself - to convey information and concept of the law to readers or clients as clear and precise as possible. Thus, legal

sentence structures are usually lengthy (an average of 2.86 clauses per sentence, see Gustaffson, 1975) and highly nominalised (written in a nominal group instead of a verbal group) as in *make such provision for the payment* instead of *provide for the payment*. These nominal groups are often featured in noun phrases and colligations of prepositions (Bhatia, 1993; Tiersma, 1999; Vedralova, 2008).

It is also common for a legal sentence to contain more than 55 words on average (twice as many as in scientific English) with many formulaic expressions and common legal vocabulary (Gustafsson, 1975)²⁵. Another characteristic of legal syntax is high frequency use of passive constructions (Charrow & Charrow, 1979), usually expressed in prepositional phrases, for example *by the majority*, *by the FIC*, and *by the authority*. The reasons for putting legal sentences into the passive form instead of the active one are to make it more formal. In the case of the absence of agents or no specific agents in a sentence, the passive is the only choice (Danet, 1985). Another characteristic of legal discourse is repetitiveness of several words of the same part of speech. They are referred to as binomials (containing two words), for example *goods and materials* and multinomials (containing three or more words), for example *employer, partner, or agent*. They are used as a means of avoiding ambiguous sentences. Besides, legal discourse is a formal register. The formality is shown by its impersonal style as evident from the prevalent use of the third person pronouns in written texts.

Legal lexicon is also distinctive from general English. Alcaraz and Hughes (2002), Gibbons (1994), Melinkoff (1963), Tiersma (1999), and Vedralova (2008) claim that legal vocabulary are prevalent with: (1) technical vocabulary comprising common

²⁵ Quite often, the sentence is written in one paragraph.

words, for example *consideration*, *case*, and *approval*, which have become specialised in legal texts; (2) academic vocabulary (the words which appear frequently in academic text), for example *relate*, *evidence*, *fees*, and *persistent*, and (3) foreign terminologies, for example *mens rea*, *habeous corpus*, and *ratio decidendi*. However, these words and terminology do not come alone in legal texts. They frequently co-occur or combine with other words to form collocations. According to Durrant (2009), the academic texts of specialised disciplines including law texts show a prominent use of colligations of prepositions. The constructions comprise many typical lexical items (high frequency words) with prepositional items such as *based on*, *concerned with*, and *according to*.

These lexical items, which are also defined as ‘procedural or enabling vocabulary’, enable speakers and writers to combine legal words and terminology into meaningful association (Kjaer, 2007). According to Kjaer (2007: 4), “... collocations with a specialised legal sense are the types of word combinations that are most frequently found in legal texts of all genres.” This actually refers to the combination of technical words with other dominant words. One example is the combination of Adjective + Noun as shown in the patterns *legal advice*, *grand jury*, and *valid contract*. Another example is the combination of technical words with grammatical words as appeared in the patterns *in consideration of* and *subject to the approval of*. In other words, what makes legal language special is its width association and conceptual density (Harris, 1997). To conclude, both legal vocabulary and syntax are characterised by a heavy use of nominalisation (grammatical metaphor, see Halliday, 1998) and prepositional phrases, the stylistic lexico-grammatical patterning that characterises a ‘special register’ (Danet, 1985), meriting a specific domain of LSP.

Colligations of prepositions are claimed as pervasive in legal texts (Bhatia, 1993, 1998; Danet, 1980, 1985). Colligations of prepositions are, in fact, of two types. The first type is the combinations of single-word prepositions, for example *by*, *of*, and *in*, and dominant words. They are examples of technical and semi-technical vocabulary manifested in the patterns such as *approval of*, *in consideration of*, and *relate to*. These are restricted collocations since the dominant words may allow only a limited combinability with prepositions. The semantic-functions of these words are dependent on prepositional items. Meanwhile, the second type of colligation of preposition is complex prepositional phrases consisting of two-word, three-word, or four-word prepositions, for example in *pursuant of*, *in accordance with*, and *on the basis of*. Though consisting of many words, they bear only a single semantic content. These two types of colligations of prepositional patterns are worth mentioning as they are indeed the most essentials in legal texts functioning as the construction of knowledge (Halliday et al., 1964; Halliday, 1994) and “...the articulation of conceptual relations in legal discourse...” (Jones & McCracken, 2006: 17).

Despite the fact that legal discourse is the “highly institutionalised and sometimes ritualised discourse of the law [which] often follows regular patterns” (Gibbons, 2003: 286), many have claimed that legal phraseology is a branch of study which is under-researched (Gozdz-Roszkowski, 2004; Kjaer, 2007). There are a few studies focusing on binomials, for instance the studies conducted by Danet (1980), Gustaffson (1975), and Melinkoff (1963). However, only a few researchers concentrated in the field of legal colligation especially colligations of prepositions (see Gozdz-Roszkowski, 2003²⁶;

²⁶ Gozdz-Roszkowski (2003) refers to colligations of prepositions as lexical bundles.

2004; Vedralova, 2008). Lack of research in this area has motivated the present study to concentrate on this aspect of collocation.

2.4.2 The Semantic-Functions of Colligations of Prepositions in Legal Discourse

Beginning with Firth (1951, 1957a, 1957b) who claim that a specialised language has a system of its own, the Neo-Firthians, for example Downing & Locke (2006), Halliday (1994), Halliday and Matthiessen (2004), and Mitchell (1971, 1975) further elaborate that any individual units of language like prepositions perform various functions in a clause. For example, prepositions *at*, *in*, *on*, *under*, and *above* are used to express **location**, *for* to express **extent** or **manner**, *by*, *through*, *with* to express **sources**, and *by* to express **agent**. And the functions of these prepositions may differ when used in different contexts especially in restricted languages. For instance, preposition *by* in the pattern underlined in the following sentences: (1) *If it is a mere term of the contract, the non-approval **by the Foreign Investment Committee (FIC)** of the deal certainly defeats the sale.*, and (2) *...such misrepresentations or frauds have been made or committed **by the principals**.*, signal the function of **authority** in legal discourse instead of **agent**, e.g. in the phrases *...claims made **by the text**...* in Information Science and Technology discourse (Fuentes, 2001) or *...the attempt made **by the fetus**...* in the Research Article abstract (Gledhill, 2009; 2011).

Thorne (1997) states that there are a main and two subordinate functions of legal collocations - the main function is *referential* (to convey information), whereas the subordinate functions are *conative* (*persuasive*), and *metalinguistic* (discussing language itself). Furthermore, in the analysis of complex colligations of prepositions of

a corpus of contracts of 300,000 tokens, Gozdz-Roszkowski (2003) found that complex colligations of prepositions²⁷ performed many **textual** (text organisers) and **referential** functions. The examples of colligations of prepositions used as text organisers are *in accordance with*, *subject to the provision*, and *pursuant to section X*. Meanwhile, those that signal *referential* functions include *in the presence of*, *for the benefit of*, and *on the part of*.

Moreover, Gozdz-Roszkowski (2004), in his analysis of a legal contract corpus reported that complex collocations of prepositions containing the word *consideration* and prepositions, for instance *in consideration of*, *for valuable consideration*, and *total failure of considerations* constitute the constructions found to be dominant in all legal contract genres such as statutes, contract acts, cases, and academic textbooks. Both the patterns *in consideration of* and *for good and valuable consideration*, for example, were found to be at precisely the same point in contracts and their function is to introduce the most essential part of any contract.

Bhatia (1998) also observed four major kinds of intertextual devices employing prepositional sequences in a corpus of legislative discourse based on the British Housing Act 1980. Those devices serve the following functions: (1) **signalling textual authority** (e.g., *in accordance with*, *in pursuance of*, *by virtue of*); (2) **providing terminological explanation** (e.g., *within the meaning of*); (3) **defining legal scope** (e.g., *subject to paragraph 11 (2) of Schedule 2 to this Act*), and (4) **facilitating textual mapping** (e.g., *specified in section*, *referred to in subsection from falling within the meaning of*).

²⁷ Gozdz-Roszkowski (2003) called them as lexical bundles instead of collocations of prepositions.

Meanwhile, Vedralova (2008) in the analysis of EU (European Union) legislation corpus of 160, 000 words reported that complex colligations of prepositions did play several roles: (1) **addition** (e.g., *in addition to*); (2) **exception** (e.g., *with the exception of*); (3) **manner** (e.g., *by means of, on the basis of*); (4) identification (e.g., *on behalf of*); (5) **condition** (e.g., *as regards*); **purpose** (e.g. *for the purpose of, with a view to*), and **reference** (e.g., *in conformity with, in line with, in accordance with*). She also claimed that many of the listed colligations of prepositions in the corpus express **reference**. In a similar vein, Durrant (2009) in his doctoral study on academic collocations revealed that the first 40 out of 100 academic collocations extracted from the corpus that he developed are colligations of prepositions. These colligations function as textual organisers and reference in all types of academic texts including legal academic texts. To conclude, prepositional sequences or colligations of prepositions do play two major functions in legal discourse - communicative or pragmatic functions and discourse functions.

2.4.3 The Essential of Colligations of Prepositions in Legal Discourse

According to Leckie-Tarry (1993, as cited in Ghadessy, 1993: 28), collocations are very crucial elements in legal discourse since there is always a “relationship between language function and language form”. Akmajian (1995: 229) also claims that “one important property of a [legal] sentence is its communicative potential and sentences with different structures often have different communicative functions”. Halliday (1970b, 1994) claims that specialised discourse structures (lexico-grammatical items) such as colligations of prepositions represent the construction of knowledge, concepts, and conceptual relations in legal discourse. They are also the organising thoughts in the

discourse, and they perform various pragmatic functions (Bhatia, 1993, 1998; Gozd-Roszkowski, 2003, 2004). In other words, the language function expressed in legal discourse is the communication of a systematic representation of carefully defined aspects of the world as seen through the lens of the law (Wei, 2010).

Moreover, “legal language is inextricably intertwined with one particular legal system” (Kjaer, 2007: 3). From a legal point of view, “...concept formation in a legal system may be analysed by studying the stabilisation and specialisation of legal phraseology, i.e. by means of a discourse analysis of the production, reproduction, and recontextualisation of particular legal phrases that are quoted again and again by legal actors in the discursive flows and genre chains characteristic of law” (Kjaer 1990a; 1992, as cited in Kjaer, 2007: 3). Different genres do have different collocational patterns and language systems, and the differences in linguistic structures are to be found in different genres because it is the genre that chooses specific structures (Biber, 1988).

Further on, in the case where law students are expected to write texts, fluency and accuracy of expressions are vital. This requires knowing “...whether certain word combinations conform to their standard usage in a field of language, i.e. if they are acceptable by a particular LSP [Legal Specific Purposes] community” (Gozd-Roszkowski, 2004: 402) or not. He also comments that it is typical for law students even at a fairly advanced stage to produce grammatically accurate sentences but they tend to sound unnatural, resulted from the lack of knowledge of words typically combine with other words (collocations). Therefore, knowing legal word combinations

and fixed expressions which are recurrent in legal texts “...is considered as a marker of a proficient language user within a particular register” (Goźdz-Roszkowski, 2003: 4).

2.5 Review of DDL Studies

This section reviews the previous studies carried out so far in DDL. The first two subsections give an overview of the previous DDL studies conducted on various fields covering both qualitative and quantitative DDL research. A review on the studies investigating the effectiveness of DDL over conventional approaches was given in Section 2.5.3. Meanwhile, Section 2.5.4 reviews the previous DDL research carried out so far in English for Academic Legal Purposes.

2.5.1 Qualitative DDL Studies

The first research on DDL was a qualitative study conducted by Johns (1991a). The research involved a group of post-graduate students at Birmingham University to discover the facts about linguistic forms (e.g., *convince*, *persuade*, *should*). He initiated the *Initiation- Response-Feedback* paradigm as opposed to the PPP technique commonly introduced by teachers in the traditional classroom. He found the tasks conducted with the learners were successful and had a considerable influence on the process of language learning. The handouts were used instead of direct corpus consultation based on the fact that it would not waste the class time. The students acted as researchers in search of the corpus evidence of the looked up words (KWIC) and the teacher acted as a facilitator to the course. He suggested afterwards that the status of grammar be reevaluated.

Johns' (1991b) second research is a continuation of his first study attempting to teach a group of students in the Remedial Grammar and Vocabulary class through the means of DDL approach. He employed a corpus of more than two million words (of various fields, e.g., Plant Biology), and the concordance printouts were given to the students requiring them to investigate the formation of that-clauses functioning as 'complements' and 'post-modifiers', the two grammatical aspects that he thought most students were weak at. One technique that he employed was asking learners to interact with the texts. The corpora used in the study acted as a source of authentic language in use, a similar study conducted by Thurstun & Candlin's (1998) on academic vocabulary. Similar to his first study, there was a report of learner success using the DDL computer printouts.

Johns (1991a, 1991b) worked so far with advanced learners who, according to Stevens (1991: 35), "are familiar with research methods across a number of different disciplines, and are used to looking for underlying patterns and regularities in data". Based on the two studies, St. John (2001) attempted to prove whether the application of a corpus-based study in an unsupervised setting could also enhance a beginner's language performance of an 'untypical student', particularly in determining whether this student could cope with the corpus and what conclusions he could reach when investigating lexical items. In this pilot study involving a beginner student of German to learn German, the student was asked to use a concordance and a parallel German/English corpus. The student was required to search for words and phrases in the corpus (to look for the behaviour of words) comprising altogether 17 tasks. He concluded that the corpus-search did manage to supplement the teaching (the evidence needed to answer the learner's question where teachers cannot predict regardless of the level of proficiency of the learner). The finding gained from this study was supported

by Turnbull and Burston's (1998) longitudinal research on concordancing strategies employed by their subjects in the investigation of self-selected concordances. The results revealed that the students experienced varying levels of success with concordancing strategies depending on learner cognitive style and motivation.

Another qualitative study was carried out by Todd (2001) at King Mongkut's University of Technology, Thailand. In an Asian country where an inductive approach to learning is not welcomingly accepted, Todd would like to prove whether learners could self-correct their own writing mistakes through inductive learning (i.e. discover and infer the rules from self-selected concordances). The findings gained from this study were quite interesting. The students were capable of self-correcting their own mistakes and even managed to derive the grammatical rules underlying the usage of the words or phrases searched.

Kennedy and Miceli (2001) investigated the appreciation of corpus work among the undergraduate learners at Griffith University in Australia whose proficiency in Italian ranged from intermediate to higher intermediate level. The corpus, namely Contemporary Written Italian Corpus (CWIC) was self-compiled by the authors for teaching in the programme. The researchers were well aware of the learners' low level of motivation in studying the course since Italian is a foreign language, and there was no immediate need of using it. The aim of the study was threefold: (1) to evaluate the effectiveness of the corpus as a source of reference for their independent work outside classroom; (2) to guide learners to make use of the corpus, and (3) to initiate the students into corpus use. By the end of the programme, the researchers noticed that the students were highly motivated since the corpus had helped them to understand Italian

better, provided examples of real language, and allowed exploration of the various uses of a given word. However, they also complained that corpus exercise was time consuming and frustrating at times.

A research by Cheng, Warren, and Xun-feng (2003) is another qualitative study aiming at observing learners' ability to become corpus researchers in an already packed timetable of an English language major undergraduate programme at Hong Kong Polytechnic University. The *Information Technology* and *Discourse Analysis* courses were merged into one course where the learners, 29 of them, were introduced to the concepts of corpora, corpus linguistics, and Data-Driven Learning. Having acquainted with the technical aspects for two weeks, the students were directed to explore the texts using a concordancer programme as a means of exploring linguistic research. They were also required to complete several tasks such as to search for the language structure and use, discourse patterns, collocations, and colligations. They were also asked to complete a mini project by the end of the semester. The finding showed a positive result. The students reacted positively to the approach despite several reports on the difficulties they had experienced while completing the tasks using the corpora.

Spiricharn (2004) conducted a qualitative study to explore the use of DDL among six native speakers (students at the University of Birmingham) and six native speakers of Thai (advanced speakers of English studying at Thammasat University, Bangkok, Thailand). Both the native speakers of English and the Thai students were asked to perform two identical concordance-based tasks: (1) to find the collocations of the words *conduct*, *perform*, *suggest*, *recommend*, and *propose*, and (2) to guess the meanings of these words in contexts. The results showed that both groups were capable of handling

the concordance tasks, a positive attitude towards DDL approach. However, it was found that Thai students showed the tendency to over-generalise rules, showing that they were unable to come to the correct conclusions. On the other hand, the natives did not rely at all on the concordancers for answers but rather on their own intuition or judgment. They even provided extra information on pragmatic, cultural, and discourse issues, etc. It was recommended in the study that teachers should step in at the early stage of DDL to scaffold the Thai students before they were left independently to make conclusions of English grammatical rules and lexical meanings.

The qualitative research conducted by Chambers & O'Sullivan (2004) was also a study requiring students' active and independent use of the corpus. The students were expected (after the training) to carry out the research directions and communicate their discoveries with their peers. The students were trained to use corpus tools as a reference resource to discover appropriate language patterns in context. It was found from the study that the students showed a positive attitude towards DDL.

Gavioli's (2005) qualitative study on DDL involved a group of Italian university students majoring in Medical studies and Economics. The adult university students were directed to construct and analyse the terminologies appeared in their own corpora especially to search for two technical terms in each subject - 'riba' (in medical research articles, a rare word) and 'bid' in business news. The learners were capable of looking up for the meanings of the words themselves after a short instruction, showing another positive result of using corpora in ESP classroom.

Yoon (2005) carried out an investigation on the changes in students' writing process associated with corpus use over ten weeks in a qualitative study involving ESL advanced students at a large American research university. The primary purpose of this study was to examine how corpus technology may affect students' development of competence as second language (L2) writers. This was a case study involving six non-native speakers of English coming from various non-speaking English countries like Korea and China who attended the EAP writing course. The findings revealed that corpus use not only had an immediate effect on students' capacity to write, but also it enhanced the students' awareness of lexico-grammar (collocations). Corpus technology helped the students become more independent and confident writers.

Meanwhile, Smith (2009) conducted a qualitative study on Taiwanese students at the National University in Taiwan. There were up to 70 students in one class, and the students were not equipped with sufficient computer facilities. It was reported that the students were uncomfortable using DDL, and this, according to Smith, was due to Taiwanese students' refusal to know more about grammar on the grounds that they already had enough grammar knowledge. Smith believed that this phenomenon happened due to the deductive grammar teaching method which has been practiced for decades in Asian classrooms. After striving for quite some time applying DDL in teaching grammar, he reported that the Taiwanese students could accept the inductive (student-centred learning) approach. The students showed a slightly positive reaction towards learning grammar using corpora at the end of course.

The most recent qualitative DDL study was carried out by Yoon and Jo (2014). This is a case study aiming at investigating the four Korean students' overall improvement of grammatical and vocabulary knowledge, error correction patterns in indirect and direct

use of corpora, and use of learning strategies according to the two corpus use contexts for 10 weeks (5 weeks of indirect DDL use and another 5 weeks of direct DDL use). The class met weekly for one and a half hours and the web-based programme, namely lextutor was used as the corpus source. The data was triangulated using the pre and post-writing tasks, pretest and posttest, pre and post-interviews, and reflections. The findings showed that the lower-level proficient students preferred scaffolding (teacher-led or indirect corpus use) more to the higher-level proficient student, the one who preferred discovery learning (direct corpus use). This study, however, concluded that teacher intervention was deemed necessary for successful direct and indirect corpus use.

2.5.2 Quantitative DDL Studies

Stevens (1991) conducted a small scale experimental study on a group of intermediate English proficient Omani undergraduates at Sultan Qaboos University, Oman. The students were required to recall the words to complete, either a single-gapped sentence or a set of gapped concordance lines. This study aimed to investigate whether the students were able to retrieve words from their memory more successfully when cued by the concordance lines despite the chopped DDL lines by the end of the course. The study reported a positive result when it showed that the students did show some possible aspects of processing the language.

Meanwhile, Gan, Low, and Yaakub (1996) conducted a comparative study to investigate the effectiveness of DDL in teaching vocabulary over the conventional teaching method among pre-service teachers in a Teaching of English as a Second Language (TESL) programme in Malaysia. The pre-service teachers were randomly assigned to two groups. The experimental group worked with the computer software

while the control group was required to perform vocabulary exercises to develop word attack skills. The pretest and posttest indicated that computer concordancing was more effective in teaching vocabulary skills than the traditional approach.

Maybe an extensive experimental study conducted in investigating the effectiveness of the DDL approach over the conventional approach was the one conducted by Cobb (1997). He conducted a large scale experimental study on first-year Omani commerce majors taking a year intensive English course at Sultan Qaboos University. This study was, according to Cobb, a continuation from Steven's (1991) study on testing learners' vocabulary development using hands-on concordancing. The aim of the study was to test the efficacy of concordance materials in assisting and improving the students' vocabulary, word pronunciation, and memory retention.

Another main aim of the study was to investigate whether DDL approach may help students enhance their vocabulary to achieve a Band 4 in the Cambridge Proficiency English Test (PET). The two 'versions' of the Cambridge Preliminary English Test (PET) namely PET•2000 tutor were designed in this study. The first 'version' (the concordance version) was prepared for the experimental group who was required to work with the concordance lines and multiple contexts, while the second 'version' (no concordance version) was assigned to the comparison group who was required to work with sample sentences and definitions in performing the four tasks. The four tasks included choosing word definitions, spelling words, choosing words for new texts, and finally, writing words for new texts. The course took a duration of 12 weeks and the tutor-corpus consisted of 10, 000 words were compiled from their reading materials. Several tests and quizzes were given to the students including the pretest, mid-test, and

posttest (using the Vocabulary Levels Test), and the questionnaire before, during and after the study. The quizzes were in the form of spelling and sentence-completion tasks. The results showed that the experimental group obtained 12% higher than the control group in all the tests and the students in the experimental groups had better word recall than their counterparts in the control group. And this, according to Cobb, was due to the help of the concordances.

Meanwhile, Someya (2000) conducted an extended experimental study taking place in three months (between May and July, 2000) to empirically prove the effectiveness of the *Online Business Letter Corpus KWIC Concordancer* (BLC Concordancer) as a writing tool for non-native learners (Japanese) studying English for business purposes. The study aimed to provide evidence that the use of the BLC Concordancer in the writing process could significantly reduce the number of linguistic surface errors, and thereby could improve the overall quality of the messages they wrote. The 40 Japanese adult learners were divided into two groups – experimental and control.

The subjects were given the same letter-writing assignments in the seven tests (Test 1 to Test 7), and the two major errors they made in the writing, articles and prepositions, were counted and compared. While they were completing the assignments, the experimental group was specifically instructed to make full use of the BLC concordancer (an exception only in Test 1). Meanwhile, the control group was deprived of the BLC concordancer in the completion of all the assignments. The end result indicated that the average number of errors the experimental group made in tests 2 to 7 were significantly lower than those made by the control group in the same tests. No significant difference was observed in the average number of errors the two groups

made in test 1. The positive result was attributed to the use of the BLC concordancer, thus confirming the initial researcher's hypothesis that the BLC concordancer and Data-Driven writing or learning methodology associated with it was in fact very effective in reducing some of the most prominent and recurring errors found in most 'interlanguage' written messages.

Hadley (2002) carried out a small scale research in a Japanese classroom at the University of International and Information Studies despite lack of encouragements from his colleagues. His efforts to introduce DDL in an EFL classroom in Japan were largely criticised by his colleagues for two reasons: (1) grammar was mainly taught using the Grammar Translation Method in EFL classrooms in Japan, and (2) the students were not regarded as intelligent, sophisticated, and highly motivated, in contrast to Tim Johns' students in Birmingham University. The class he conducted consisted of 35 students and they were introduced by the researcher to the ideas of DDL by using simple English and humorous pictures on the handouts. After a month, a Needs Analysis test was carried out besides other general exercises. The result shown was very impressive. The DDL approach was found as not only engaging but also effective. The fact that Japanese university students had shown their interests in studying samples of authentic language outside classroom made him believe that DDL can work with beginning EFL students.

Gaskell and Cobb's (2004) study can be claimed as a large scale experimental research conducted to investigate the application of DDL in ESL classroom. The research took about 15 weeks at a university in Montreal involving 20 adult Chinese learners who had a low level of English proficiency. The aim of the study was to observe how corpus

work could help learners improve their errors at sentence level. The researchers aimed to answer several research questions. First, the study aimed to investigate whether the students would find the concordancing activity useful. The second objective was to examine whether they would be capable of using concordances to correct their errors. Finally, the researchers intended to investigate whether the respondents could reduce errors with the help of the concordances. A Needs Analysis for determining the respondents' errors was conducted by asking them to write an essay in about 200 words. The most frequent types of grammatical errors were listed. The students were required to check their errors through the URL link which was connected to a set of concordances. The findings showed a positive result. The students appreciated for having the opportunity to use DDL approach and some were found to continue using the system in their study.

Chambers (2005) carried out an experimental study on two groups of students (the undergraduates and postgraduates) to investigate the use of corpus as a consultant for their linguistic queries. She claimed that corpus consultation could enhance a language-learning environment by producing autonomous learners through discovery learning. The result was a very positive one when the students could now realise the potentials and benefits of corpus consultation in their academic life, though problems with corpus size and technicality were also reported.

Lee and Swales' (2006) experimental study involved a group of advanced non-native speakers (doctoral students) at the English Language Institute (ELI) of the University of Michigan in the United States. This study aimed to raise learners' consciousness-raising on the rhetorical functions of texts from different fields. Students were required to

perform two tasks: (1) they were instructed to make use of corpora for self-directed learning and to compile their own writing (i.e. term papers, dissertation drafts, unedited journal drafts) and one of expert writing, culled from electronic versions of published papers in their own field or subfield and then (2) to make comparisons between these two writing types. At the end of the course, the participants were to present reports of their discoveries with some discussion of how they felt about the course and to reflect on the future use of corpus linguistic techniques in their future careers. This study also showed a positive result. It was found that not only the students' consciousness-level of the rhetorical functions of texts were raised, but also the students had bought the copies of the WordSmith concordancing program to continue working independently with concordancing activities outside classroom.

Meanwhile, Henry (2007) carried out an experimental study to test the extent to how much the on-screen, genre-based materials enabled learners to write persuasive job application letters better and the impacts they had on the discourse structure of the students' letters. 13 Bruneian students in the second year of a four-year bachelor of Electrical and Electronic Engineering programme at the University of Brunei Darussalam took part in the pretest and posttest. The tasks were to direct learners to the sample web-based materials coming from the letter of application genre analysis reported in Henry and Roseberry's (2001). The findings showed that there was a significant difference between the pre-instruction and post-instruction results, significant at a level below the 0.025 significant level set for the study. It was reported that the learners' structure discourse was improved as evidencing from their error-free moves contained in the letter.

The two most current experimental studies conducted in investigating the effectiveness of the DDL approach over the traditional approach were carried out by Boulton (2009c) and Tian (2005a). Boulton (2009c) conducted a study with a group of lower level English proficiency learners in French in the application of corpora in classroom using printed concordance materials (the handouts), not the direct application on the grounds that the method would save class time and avoid technical failures. The subjects in the experimental group were given treatment in the form of concordance printouts. In contrast, the subjects in the control group were given dictionary entries and taught using the traditional method. Similar to Gaskell and Cobb's (2004) study, the learners' errors from the subjects' written essays in this study were assessed and analysed. This study was carried out for four weeks, and it showed a positive result. Boulton (2009c) concluded that lower level proficiency students could also benefit from the DDL approach.

Meanwhile, Tian's (2005a) study attempted to investigate two aspects: (1) the effectiveness of DDL in teaching grammar, word usage, and discourse, and (2) whether the effectiveness of DDL in any of the language components (grammar, word usage, and discourse) differed according to the subjects' general English proficiency level. The learner proficiency level was indicated as either high and low, and the reading scores were used for proficiency grouping. This study was implemented with 98 university students (non-English major) from two media English classes who were taught by the researcher within a period of five weeks, two hours of teaching time per week. They were also assigned to two groups. One group (class) was placed in the experimental group, and the respondents were treated with the concordance outputs. In contrast,

another group (class) was assigned in the control group, and the subjects were treated with the conventional method.

Similar to Boulton's (2009c) study, this researcher made use of the concordance printouts instead of hands-on concordancing. The pretest and posttest items comprised fill-in the blank questions, error corrections, and text conversion. The results obtained from the study were mixed. The students in the DDL group improved significantly better than the control group in word usage and headline features. However, no significant result was found between the two groups in the grammar task. Besides, learner proficiency did not become a significant factor in determining the students' scores.

2.5.3 Empirical Research Comparing DDL and Conventional Approaches (CA)

According to Boulton (2008a), empirical research which truly investigates the effectiveness of DDL over traditional approaches is lacking. It was found that out of 50 empirical studies conducted on DDL, only eight studies were reported to truly measure the effectiveness of DDL over traditional approaches, and which made use of concordance printouts in the experiments. And out of the eight studies, it was found that only a few comparative studies were recorded to examine the effectiveness of DDL over traditional approaches in teaching colligations of prepositions, and which made use of learner errors as a basis for teaching the students. Someya's (2000) study, for example, could be claimed as a truly comparative study which investigated the respondents' self-correction of colligations of prepositional errors in their e-mail letters, checking those with the Business Letter Corpus (BLC). This study, however, did not

provide any treatment on the control group and did not test the initial knowledge of the articles and prepositions of both groups prior to the study. Besides, though Gaskell and Cobb's (2004) study aimed at investigating the students' use of a corpus to self-rectify their grammatical errors in writing including prepositions, this study was a self-corrective exploratory study, not an experimental one.

Alex Boulton can be claimed as an active corpus researcher conducting experimental studies comparing DDL and CA approaches in classrooms, especially with the use of concordance-printed materials. In several of his comparative studies (2007c, 2008c, 2009c, 2010a) in French, he tried to investigate the efficacy of DDL over the CA in various linguistic fields. His 2007(c) study compared the effectiveness of using concordance printouts over the use of the PPP technique and grammar textbooks (the traditional approach) in teaching phrasal verbs to lower proficient students in French. No significant result was found in this earlier study but in his three consecutive studies - 2008c, 2009c, 2010a, DDL was reported to be effective and gave positive results, resulted from intensive exposure to huge and multiple concordance data.

Two more studies which investigated the efficacy of DDL over the CA were the studies carried out by Tian (2005a) in Taiwan and Yanhui (2008) in China. The two researchers compared the deductive DDL approach (employing concordance printouts) with the Grammar Translation Method (GTM) and Audio Lingual Method (ALM), the popular traditional grammar methods which are still practised in many Asian countries. Though DDL approach was reported to be successful in both of the studies, it was found in Tian's study that DDL was not very effective in teaching the grammar component - subjunctive.

Another experimental study was conducted by Nikoletta (2010) involving a group of adolescent students in Greece aiming at investigating the degree of motivation in learning grammar using DDL and the effectiveness of DDL in the teaching and learning of grammar. The experimental group was treated with the concordance-based grammar materials whereas the control group was supplied with a conventional grammar book. The findings showed that the experimental group performed better than the control group in all the tests but the degree of motivation to study grammar varied. Some students preferred concordance-based learning but there were also some students in the group who preferred using the traditional grammar book. This was related to the deductive teaching method that they were accustomed to. The study also reported the learners' difficulty in generalising grammar rules despite their improved noticing skill.

Possibly much similar to the present study is a five-week study conducted by Ha Le (2010) involving 20 Vietnamese English majors in Groningen University, Netherlands. The respondents were reported to have an intermediate level of English proficiency. The aim of the study was to investigate their performance in lexical collocations. The concordance plus scaffolded instruction was conducted with ten students in the experimental group, and the other ten were placed in the control group receiving concordance only treatment (no guidance or teacher supervision). The respondents were required to perform several tasks such as identifying collocations and collocation errors, correcting errors based on the options given, and correcting errors themselves.

The results from the posttest and delayed posttest showed that the experimental group performed significantly better than the control group. The increase in the respondents' performance was related to the effect of scaffolding. However, no significant difference

was found between the two groups in the error identification and correction of collocations in the concordance-only task and concordance plus scaffolding task. The researcher reported that scaffolding had facilitated the experimental group students in adopting the search skills of checking occurrences and frequency of word combinations. The results found from this study supported Boulton's earlier findings (2009a, 2009b, 2010a) that DDL also can work with lower proficiency students.

Moreover, Koosha and Jafarpour's (2006) study involving 200 EFL university students in Iran can be claimed as an extensive experimental study comparing the effects of DDL instruction over the traditional approach (Grammar Translation Method). This study comes closest to the present study in terms of taking into account of learner errors (interlingual and intralingual interference) in measuring learners' learning outcomes, the knowledge and production of colligations of prepositions. The only difference with the present study was that this study did not treat errors as a basis of classroom instruction. This study was carried out for 15 weeks, and the sessions were conducted one hour per week. The experimental group was treated with prepositions and their colligations using the concordance-based instruction, making use of paper-based concordance printouts taken from the Brown Corpus Online. In contrast, the comparison group was taught prepositions using two grammar textbooks - *Practical English Grammar* and *English Idioms*.

To examine the effects of the two instructions, the respondents were grouped according to three levels of English proficiency - advanced, intermediate, and low. They were tested before and after the course using the same sentence-completion test comprising 60 tested items. They were also required to do a translation on the errors they had made

earlier in the test to examine the sources of collocation errors. The findings showed that the DDL group performed significantly better than the conventional group in the test. This was related to DDL instruction which had exposed the learners to huge and multiple contexts. It was also reported that L1 (interlingual) interference (Persian) was the main source of errors leading to the students' erroneous production in the test.

2.5.4 DDL Studies in EALP Context

Lack of current teaching materials employed by EALP practitioners in teaching law students and lack of studies carried out by researchers employing the corpus-based approach and materials have been expressed by many (see Candlin et al., 2002; Gavioli, 2005; Master, 2005). The literature has revealed so far that only four studies implemented the corpus-based approach with law students.

Weber (2001) carried out a concordance-based and genre-based approach in teaching academic essay writing to 20 non-native law undergraduates at the University Centre, Luxembourg. He argued that legal genre has its own genre-specific lexical expressions, grammatical constructions, and structural features, the styles and conventions expected of law students to master and use in their essays. He prepared a mini corpus for the students in this qualitative DDL study comprising the 'model' professional legal essays taken from the University of London LLB Examinations. The students were asked to identify the generic features of legal essays and to work with the concordances especially for doing the remedial grammar work. This involved searching for the prepositions that colligate with the legal terms prevalent in the legal essay. He reported that the students' ability in writing the formal legal essays was improved at the end of

the semester, resulted mainly from exposure to and assistance from the concordance materials. This study, however, did not employ extensive research tools in collecting and analysing the data.

Another study was carried out by Fan and Xun-feng (2002) utilising a relatively simple but innovative idea of inserting hyperlinks at the sentence level between parallel texts, a bilingual corpus of legal and documentary texts in English and Chinese. This study aimed at evaluating the usefulness of the corpus in learning legal English independently. The subjects consisted of a group of Chinese students doing a degree in Translation in a university in Hong Kong. The instruments used included two comprehension tasks, a questionnaire, and a follow-up interview. The respondents were reported having positive reactions towards the corpus-based approach. They considered the bilingual corpus useful as they needed both language versions in understanding legal provisions, despite their over-reliance on Chinese. This study, however, was qualitative in nature and focused only on obtaining the students' reactions towards corpus use.

Hafner and Candlin's (2007) study can be claimed as the only extensive study conducted so far in the application of corpus-based approach in EALP. This longitudinal study aimed to observe learner manipulation of corpus (called as an affordance or support tool) to assist them in their writing tasks. This study was carried out for one and a half years, making use of a 797,000 word corpus comprising 114 legal cases from three different legal areas to guarantee the corpus' coverage.

To keep track of the study progress, the respondents were asked to record a few items, for example the date and time of their accession to corpus, the referring page, the search query, and the corpus or sub-corpus searched. The students' profile was also gathered to obtain information about their IELTS score, English proficiency, computer skills, and web-searching ability. The method used was claimed as very efficient in enabling the learners to associate data reliably, in particular to link individual users with their individual queries. The study showed a positive result when the learners appraised the potential of corpus-based methods as an affordance for them to studying the practice of law. However, this study was also qualitative in nature, and it did not attempt to compare statistically the students' knowledge at the beginning and after DDL treatments.

2.6 Summary

Numerous studies reviewed in the previous sections show that DDL approach tends to be effective, and even is more effective than the traditional approach in some studies contrasting these two approaches. For example, DDL was found to be effective in teaching simple tasks, not complex tasks; it works in teaching vocabulary and discourse, not grammar, and that the level of proficiency does not determine success in DDL approach (see Tian, 2005a). However, this achievement is not yet conclusive in ESP, particularly in EALP setting.

Johns (2002) himself admits that DDL has still imposed a perpetual challenge on learners and proposes several precepts for the implementation of this approach in classrooms. There are still others such as Clark (1989) and Kirschner, Sweller, and

Clark (2006) who argued that inquiry-based and discovery-based learning that requires minimal guidance from teachers is less effective, less efficient, and even harmful on the ground that it does not support the cognitive processing necessary for learning. To what extent does this argument hold true? More empirical studies including this one have to be carried out to confirm the previous study findings in this area. The research methodology chapter which follows will deal with the design in greater depth.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

This chapter describes the study's research design and procedural details such as data collection and analysis. The first section describes the overall research design, the context of the study, the participants, the preliminary study (Needs Analysis), teaching and testing instruments, and the pilot study. The following sections describe data-collection, the procedure of the experimental study, and finally, data-analysis.

3.1 Research Design

As stated previously in Chapter One, this study attempts to prove several assumptions made earlier that DDL approach has the potential to enhance learners' acquisition and production of colligations of prepositions through repeated and intense exposures to the patterns in much richer and larger authentic contexts, using the special purpose corpora and DDL learning approach. This study compares the effectiveness of DDL with non-DDL, an approach that emphasises teaching of prepositions through drilling in dense and made-up contexts using the conventional PPP technique.

This study was informed by Firth's (1957b, as cited in Tognini-Bonelli, 2001) 'contextual theory of meaning' which postulates that the meanings of speech events (law of contract discourses) could be detected linguistically within the contexts of environments (extra-linguistic contexts) which are repeated and observable in

concordance data. And in the process of meaning-making, students should be given an opportunity to learn them interactively coupled with teacher guidance (scaffolding) at the beginning of study (Vygotsky, 1986, as cited in Lantolf & Thorne, 2006). The two theories were applied to guide the following research questions:

1. How does exposure to DDL impact on the University of Sultan Zainal Abidin (UniSZA)'s law undergraduates' performance in colligations of prepositions?
2. To what extent does exposure to DDL influence UniSZA's law undergraduates' knowledge of colligations of prepositions in terms of
 - a. form?
 - b. meaning?
 - c. production?
3. What are the factors which influence the students' knowledge of the form, meaning, and production of colligations of prepositions?

This present study employed a mixed-methods research design. It is a method whereby both quantitative and qualitative data were collected, analysed, and mixed in a series of studies (Creswell & Plano Clark, 2007). The central premise of the mixed methods research design underlies in the strength of combining both the quantitative and qualitative methods in order to enhance researchers' understanding of the research problems better (Creswell, 2009). A mixed methods research design is chosen above

either approach alone in cases when a quantitative design, for example experiment or correlational study can be enhanced by qualitative data such as a case study. In cases when the results from an experimental or correlational design are insufficient to provide a better understanding of the research problem, qualitative data may enhance the results of the overall study.

When deciding on choosing a mixed methods design, a researcher needs to be familiar with the timing, weighting, and mixing decisions that are made in each of the different mixed methods designs. Creswell and Plano Clark (2007) categorised mixed methods designs into four – triangulation, embedded, explanatory, and exploratory. Triangulation design is selected when researchers aim to complement, converge, transform, or validate two different data sets to answer the same research question. Meanwhile, the researchers may opt for the embedded design should they need to include quantitative or qualitative data within a largely qualitative or quantitative study. The researchers may need to justify the decision for selecting this design; that is, whether they want to shape the intervention, to explain the process of participants during treatment, or to follow up on the experimental results. In other words, the supplementary data will be utilised to support the major data.

In addition, the two-phase explanatory design is selected in cases when the researchers intend to gather qualitative results in the second phase of a study to help explain the quantitative results obtained earlier in the first phase of study. Finally, the two-phase exploratory design is chosen in cases when the researchers may want to employ the results of the first method (qualitative) to help generate the second method (quantitative). In addition to the four major aforementioned categories, each of the

designs is further divided into several variants (models). While uppercase letters denote emphasis or priority of weight (QUAL, QUAN), lowercase letters show less emphasis or priority (quan, qual) (Creswell, 2009; Creswell & Plano Clark, 2007). Researchers may need to be more tactful in choosing a study design that can best suit their study purposes and answer the research problems more comprehensively.

The present study is a quasi-experimental study which employed an embedded sequential mixed-methods approach. The embedded nature is indicated by Creswell and Plano Clark (2007) as QUAN (qual), in which the quantitative study (quasi-experimental) played a larger role (primary) and the two qualitative studies (carried out before and after the experimental study) played a ‘subserving’ role (secondary). Figure 3.1 below illustrates the embedded experimental model selected in the present study, as adapted from Creswell and Plano Clark (2007: 68).

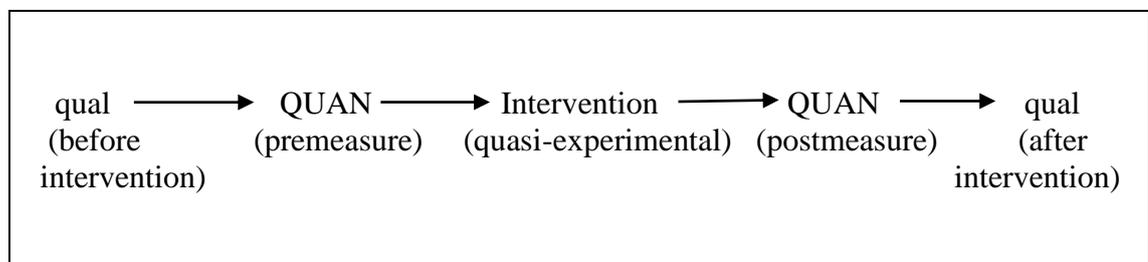


Figure 3.1: Embedded experimental model

This embedded experimental model is sequenced in three phases. First, it began with the pre (before)-intervention phase. This first phase is an exploratory study (a qual) which serves as a Needs Analysis study. This qual phase is a smaller part of a larger study (experimental) which was carried out for two weeks. Three research activities were conducted with the respondents in this first qual phase – interview, essay test, and error-identification and correction test. The pre-course interviews (see further

explanations in Section 3.1.3.1) were carried out with the respondents for four days. Ten out of the 40 participants were picked at random and interviewed to know in depth about their major difficulties and problems with prepositions, the prepositions used in legal assignments, their strategies in learning prepositions, and their knowledge about collocations.

Meanwhile, the Problem Question (PQ) essay test, a two-hour test was held after the interviews (see further explanations in Section 3.1.3.2). The test questions were adapted from the previous semesters' progress test questions. The third test conducted in this qual phase is the Error Identification and Translation test. This test contains 40 items, and it was designed to ensure that the errors produced by the respondents were truly the errors (see further explanation in Section 3.1.4). To conclude, this qual phase is indeed essential for it sets the stage for the next stage – intervention. It provides information about the learners' deficiency with prepositional patterns; it helps in developing the modules, and finally, it assists the researcher in designing the research instruments (pretest/posttest).

The second phase is the intervention phase, a QUAN. It is a seven-week quasi-experimental study which was held from 18th of January, 2010 until 3rd of March, 2010. The QUAN phase constitutes a larger part of the study whereby the respondents (determined during the pre-intervention phase) were placed in two groups – experimental (20 DDL students) and control (20 non-DDL students). Two types of quantitative data were gathered in this phase – pretest (before the intervention session) and posttest (after the intervention session). The respondents' knowledge and production of colligations of prepositions were tested (pre-measured) before the

intervention and were retested (post-measured) after the intervention. The data gathered in this phase were used to investigate the students' overall performance with colligations of prepositions (to answer research question one) and also to examine the students' knowledge and performance in the gap-filling, error-identification, semantic function, and single-sentence writing tasks (to answer research question two).

The third phase of the study is another qual phase. This qual approach serves as a follow-up study to gather in-depth information about the effectiveness (if any) of the intervention course in improving the respondents' knowledge and production of colligations of prepositions. In this qualitative study, several data were collected – qualitative (post-course interview analyses) and statistical (survey questionnaire and pretest/posttest results). In the post-course interview, the respondents were further explored about their experiences in the intervention. For example, they were asked to explain about their increased or reduced performances in the posttest.

This qual phase is a small part of a larger study (QUAN - experimental). It took the duration of four weeks. The research activities in this qual phase were carried out after the release of the posttest results. In this phase also, the factors contributing to the respondents' knowledge and production of colligations of prepositions were uncovered. To conclude, the three sequential phases (qual, QUAN, qual) integrate as a whole to offer understanding of the research problems of the present study.

3.1.1 The Setting of the Study

This study was conducted in FLAIR (the Faculty of Law and International Relations), UniSZA (Sultan Zainal Abidin University), Terengganu, one of the main public universities in the east coast of Peninsular Malaysia²⁸. UniSZA, formerly known as Universiti Darul Iman Malaysia, was established in late 2005. The development of UniSZA began with the upgrading of KUSZA (Religious College of Sultan Zainal Abidin) with the aim to offer more quality and skills programmes in line with the Malaysian government's target to make the university a centre of knowledge. UniSZA consists of several campuses, and each campus has a number of faculties. Among the campuses established are the Faculty of Languages and Communication (FLC), the Faculty of Health and Sciences (FHS), the Faculty of Islamic and Contemporary Studies (FICS), and the Faculty of Information Technology (FIT). The establishment of FLAIR was approved in March, 2007 by the Ministry of Higher Education (MoHE), and this faculty is situated in Gong Badak campus, a suburban area in the district of Kuala Terengganu.

However, the law programme has actually been offered ever since UniSZA was still known as KUSZA. The Diploma in Law programme was the only law programme offered by *Sekolah Pengajian Umum* (School of General Studies), KUSZA, during the July 1991 session. Later in July, 2006, the same school offered the undergraduate programme, namely the Bachelor of Laws with Honours (LLBS). When the KUSZA campus was established as one of the UniSZA campuses on 1st January, 2007, all the previous programmes of KUSZA, including both of the law programmes, were

²⁸ There are only a few universities in the east coast of Peninsular Malaysia. UniSZA is the only university in this region that offers the law degree programmes.

continued on by UniSZA. These two programmes have been under the responsibility of FLAIR since it was officially established in March, 2007.

The number of students pursuing their degrees in FLAIR can still be considered as small. Law students are admitted only once per year, in June for diploma students and in September for undergraduate students. Considering the fact that only 50 students²⁹ on average are admitted per intake, there are approximately 200 undergraduates and 200 diploma students reading law in this faculty per semester.

The Bachelor of Laws with Honours (LLBS) is a four-year degree programme. Among the legal courses compulsory for law undergraduates to take are Malaysian Legal System I & II³⁰, Law of Contract I & II, Law of Torts I & II, Islamic Legal System, Legal Skills and Research Methodology, Moots, Constitutional Law I & II, Criminal Law I & II, Family Law, Islamic Law of Transactions, Land Law I & II, and Equity and Trust I & II. Meanwhile, the Diploma in Law is a third-year diploma programme. The courses offered in the diploma programme are more or less similar to those offered in the undergraduate programme, with the only exception in the number of courses offered. All courses are offered only in one semester except for the Law of Contract I and Law of Contract II and Law of Torts I and Law of Torts II courses, which remain to be offered in two consecutive semesters. Besides, the minimum prerequisite of English for admission to the undergraduate programme in FLAIR during the conduct of the study was a MUET Band 3³¹ and a minimum of an A2 of the English grade in SPM (the Malaysian Certificate of Education). Meanwhile, the minimum prerequisite of English for admission in the diploma programme for SPM is C5.

²⁹ Both the diploma and undergraduate programmes only accept 60 candidates per intake to pursue their legal education in FLAIR.

³⁰ I and II indicates that the courses are offered in two consecutive semesters.

³¹ The current requirement in FLAIR beginning 2010 is a MUET band 4.

The faculty that serves the English needs of all students in UniSZA, including law students in FLAIR, is the Faculty of Languages and Communication (FLC)³². All undergraduates, including law students are required to pass two university English courses, namely English for Communication I and English for Communication II offered in semester 1 and semester 2, consecutively. These two courses prepare UniSZA students with academic study skills, for example listening to lecture, conducting interviews and meetings, and writing business letters and academic essays. Meanwhile, the two university English courses required for all diploma students at UniSZA including law students are English I and English II. These two English proficiency courses are offered in semesters 1 and 2, consecutively. These two courses prepare students with rudimentary English skills including listening to main ideas, oral communication skills, reading strategies, and paragraph and essay writings. These university courses are compulsory for all students to take in order for them to graduate.

The two English courses offered in each programme, however, are non-specialised English courses prepared for specialised disciplines. In other words, they do not tailor to the needs of students in specialised fields, for example Law, Biotechnology, or Computer Science. FLC would only serve ESP courses should there be any request from the faculties offering the specialised courses. So far, the English for Academic Legal Purposes course has been offered only to semester three diploma in law students in FLAIR. This course has not been offered to law undergraduate students at this faculty up to the present day³³.

³² The researcher works here as an English lecturer.

³³ This has become one of the motivational factors for the researcher to conduct the present study.

3.1.2 Population and Sampling

The participants involved in the present study were semester three undergraduate law students in FLAIR, UniSZA. At the time of data collection, the researcher was not teaching this group of students³⁴ and she worked with them only for the duration of the study. The respondents were selected based on purposive sampling, not random sampling. According to Newman (2000), purposive sampling is selected over other methods in one of the three special situations – unique cases, difficult-to-reach population, or in-depth investigation. The purposive sampling procedure was selected in this study rather than random assignment because of its unique case - only this group of students fit the criteria required.

First, the respondents (semester three students) had already taken the Law of Contract I and II courses offered in semester 1 and 2. They were considered as the most suitable respondents to be recruited for their knowledge about the content and language of the law of contract was expected to be higher than the first semester students. This group of students had just been introduced to Law of Contract I during the conduct of the research.

Second, the semester one law undergraduates who were taking Law of Contract II during the time of selection were newly exposed to the law of contract subject and the phraseology of the law of contract. If selected, this could somehow deter the teaching and learning process in the experimental phase. For example, if they were to be placed in the DDL group, the students would face greater difficulty in guessing the meaning

³⁴ As mentioned in section 3.2.1, none the English for Law or EALP courses have been established to cater to the English needs of law undergraduates in FLAIR.

from the concordance lines due to their limited knowledge. Besides, the data compiled in the LCC (Law of Contract Corpus) had been taken from many Law of Contract textbooks covering the content in the two Law of Contract courses. Choosing only a few Law of Contract textbooks would not produce a more comprehensive and representative corpus.

Finally, the third-year and fourth-year students, in all likelihood, had acquired a fairly strong knowledge about the target structures of the law of contract phraseology. They may be more resistant to pedagogical intervention. The students would be unwilling to change the knowledge they had already restored with the new knowledge obtained. The challenge of the new knowledge may deter the students' willingness to change the previous knowledge which had become fixed.

There were 48 students enrolled in this class, 19 males and 29 females altogether aged between 21 and 23. All respondents participated at the beginning of the course in the pre-interview and the writing test during the preliminary study. However, this figure was reduced to 40 due to unwillingness of some students to participate in the experimental or comparison classes, and unsatisfactory attendance. Due to this exclusion, only 40 data were considered in the analyses. The students were further divided into two groups. Twenty students (5 males and 15 females) were placed in the treatment (experimental) group while the other 20 students (6 males and 14 females) were included in the control group.

The students are all Malay students coming from different states in Malaysia who speak Malay as their first and native language. Most of these students had had English

education for more than 12 years in formal educational institutions in Malaysia at the primary and secondary levels before they furthered their legal education at FLAIR. One student had already had a working experience in the legal field prior to studying at this university. In determining their English proficiency level, the two English proficiency tests were referred to - MUET (ranging from Bands 1 to 6) and SPM English grades (ranging from A1 to F9). A majority of these students had a MUET result ranging from Band 3 to Band 4. Only one student obtained a MUET band 5. While Band 1 in MUET indicates the lowest proficient language user, Band 6 indicates the most proficient one. Meanwhile, an A1 English result in SPM indicates the most proficient English user and F9 the least proficient one. The learner profile (see Appendix A) provides a demographic record of their language background.

In order to equate the subject in the DDL and non-DDL groups (see Section 3.1.10), and to ensure the validity of the chosen sampling, the MUET scores were used as a basis for assigning the students into two groups. It is also important to note that even though a MUET Band 4 was considered for admission to the law programme since 2010, the law students who gained a MUET Band 3 were still accepted to join the law programme during the conduct of the study. In order to equate the participants, one student who obtained a MUET band 5 (placed in the DDL group) was compensated by assigning many students with a MUET band 4 in non-DDL group. 10 students were placed in non-DDL group compared to only 6 in DDL group, and 13 students with a MUET band 3 were assigned in DDL group compared to only 10 in non-DDL group. Table 3.1 shows the assignment of DDL and non-DDL groups in terms of MUET results.

Table 3.1: Students' assignment based on MUET

Group	DDL			non-DDL	
	Band 3	Band 4	Band 5	Band 3	Band 4
Students	13	6	1	10	10

3.1.3 Preliminary Study: A Needs Analysis

As mentioned previously, the first phase of the study began with a Needs Analysis³⁵. The main objective is to explore in depth of learner problems, their difficulties³⁶, and errors with colligations of prepositions through interviews and analyses of their colligation of prepositional errors in the Problem Question (PQ) essays (of legal contract genre)³⁷ prior to the establishment of the intervention course in the second phase of the study. According to Jordan (1997), Needs Analysis is essential in ESP courses as it may provide information about learner learning needs, necessities, and lacks prior to an establishment of the courses. Lacks represent the gap between the target proficiency and what the learner already knows, known also as deficiency analysis. Jordan (1997) also mentions that the data for Needs Analysis could be collected using several methods, for example surveys, self-assessment, and observation. Meanwhile, the data for learners' deficiency could be collected from class progress tests or error analyses. This provides the rationale for carrying out an Error Analysis of colligations of prepositional patterns in the present study as a means of obtaining accurate details about learner deficiency in the patterns before the intervention

³⁵ This was carried out in July, 2009

³⁶ As mentioned previously in the literature, prepositions are difficult even with advanced learners (Celce-Murcia & Larsen-Freeman, 1999).

³⁷ The scope of the present research is Law of Contract (academic) genre.

(treatment) of DDL course was set up. The methods and procedures of the Needs Analyses were described in the following sub-sections:

3.1.3.1 Needs Analysis 1: Pre-Course Interview³⁸

The first Needs Analysis carried out during the preliminary study was the interview. This was the first step of the study which involved only eight out of 48³⁹ students. Only eight students volunteered to be interviewed during that time. The main aim of the interview was to know in depth about their major difficulties and problems with prepositions, their usage of prepositions in legal essays and assignments, their strategies in learning prepositions, and their knowledge about collocation, etc. The interview took place within a period of four days, and the interview sessions were video-recorded upon the granting of permissions. The analysis of the interviews was done manually by the researcher.

3.1.3.2 Needs Analysis 2: Problem Question (PQ) Essay Test

The second Needs Analysis conducted on the students was the essay writing test. The main objective was to investigate the respondents' erroneous production of colligations of prepositions for treatment purposes in the experimental stage. White (1994) mentions that test developers should observe four minimum requirements for writing tasks: (1) clarity - test takers can understand what is required of them quickly by providing clear instructions or prompts; (2) validity - the task has the potential to elicit differing abilities of test-takers; (3) reliability - the same scoring is applied to all test takers, and

³⁸ Another interview (i.e. the post-course interview) was conducted after the experimental course.

³⁹ At this stage, all the subjects participated in the research.

(4) interest - the tasks are engaging enough both to the writers and readers. In a similar vein, Weigle (2002) suggests five criteria of a successful writing test including the choice of tasks, time allocated for the writing tests, the essay assessment, the choice of raters, and the genre involved. The aforementioned measures were seriously considered by the researcher prior to the conduct of the writing test in the present study.

First, to ensure that the test questions are in line with the previous PQ test format as used in the previous law tests and exams, and in order to avoid the subjects from taking a different test type which could hinder their performance, the PQ questions were taken and adapted from the previous semesters' progress test questions. Moreover, since the researcher is not the subject matter expert, the Law of Contract lecturer⁴⁰ was also consulted in deciding on the PQ questions. A slight modification was done later to the PQ questions. The names of the persons and dates which had been originally stated in the test questions were changed to what they are now.

The second criteria considered is the time allotted for the writing test. According to Weigle (2002), the amount of time spent on a writing test should take into consideration of the total testing time available and the degree of importance writing which holds in respect with other skills. In writing an academic essay, the time allotted should be sufficient enough for tests takers "to plan, write, and (where necessary) revise their writing" (Weigle, 2002: 101). The time provided for the subjects to complete the test in this study was decided to be two hours and thirty minutes. Considering the number of the tasks given (three questions and three sub-questions), see Appendix B for the PQ questions, the familiarity of test takers with the tasks, and the level of difficulty of the

⁴⁰ There was only one Law of Contract lecturer teaching both the diploma and undergraduate students during the conduct of the research.

tasks itself, it was decided that the duration of the test was reasonable. It could provide ample time for the respondents to plan and revise their piece of work.

Moreover, regarding the length of the essay (the number of words allowed for test takers to write), the subjects in this study were required to write in about 200 to 400 words per each question. The given length of essay was considered reasonable considering the length of time provided. To count the total number of words in the students' scripts, the number of words in the first line was multiplied with the total number of lines, taking an average figure for all scripts. The counting stopped after the essays exceeded 400 words.

Another consideration given in the process of test development was the use of an aid. It has become a normal practice in FLAIR that students will be supplied with the Contract Acts 1950 (Act 136) and Contracts (Amendment) Act 1976 (A 329)⁴¹ prior to the conduct of any tests and exams. The book of contract contains the laws employed in Malaysian judicial system, and it constitutes the main source of reference⁴² in answering legal essays. To comply with the normal procedure, the subjects were provided with the books of Contract Acts 1950 which were obtained from FLAIR.

As mentioned before, the main objective of carrying out a Needs Analysis in the preliminary study was to explore the subjects' lack of knowledge and deficiency in colligations of prepositional patterns. This involves an error analysis process. Therefore, the students' pieces of writing would not be graded using the normal grading - holistic or analytic. Besides, only the students' erroneous production of colligations of

⁴¹ The law stated is as at 30 July, 2009.

⁴² In writing a PQ legal essay, a writer needs to comply with the four moves - ILAC (issue, law, application, and conclusion). The Contract Acts 1950 is used to indicate the law relevant to the issue discussed at hand.

prepositional patterns was analysed and counted, disregarding other writing components such as content, moves in legal essays (*ILAC* - Issue, Law, Application, and Conclusion), essay organisation (e.g. discourse markers), and punctuation.

The analysis of the prepositional patterns began afterwards employing Benson et al.'s (1997) framework outlined as below:

a. Preposition + Noun + Preposition

Example: *in contrast to, as opposed to, by virtue of*

b. Noun + Preposition

Example: *approval of, discussion about, argument with*

c. Adjective / Participle + Preposition

Example: *contrary to, binding on, bound by*

d. Verb + Preposition (particles)⁴³

Example: *come to, enter into, look to*

Based on those categories, the prepositional patterns produced by the students in the essays were checked against their accuracy and errors. In this study, phrasal verbs such as **enter into** in the phrase **enter into a contract**, **look to** in the phrase **look to the judge**, **look into** in the pattern **look into the matter**, and **come to** in the phrase **come to the knowledge of** were considered as prepositional patterns in this study. Besides, the patterns comprising Noun + Preposition *of* and Noun + Preposition *by* which were not considered in Benson et al.'s (1986; 1997) dictionaries were also taken into account in this present study. This study also considered *in regard to* and *with regard to* which had

⁴³ Phrasal verbs are the combinations of verbs with particles, not prepositions. Particles do not have a stand-alone meaning. Together with the verbs, they give a totally different meaning.

not been considered by Benson et al.'s (1997) and their derived prepositions, *concerning* and *regarding*, respectively, as patterns. Besides, Preposition + Gerund constructions, for example *by making*, *from purchasing*, and *from contracting* were also counted as patterns in the present study.

Finally, though this study has accepted Benson et al.'s construction of Adjective + Preposition as a type of colligation of preposition, this definition has also been extended to include linking verbs, for example *be*-verbs and sense verbs such as *look*, *smell*, and *tastes* which come before adjectives. The construction such as *is binding on* in the following sentence: *The contract is binding on the offeror* exemplifies this type of patterns. The inclusion of patterns like this clearly shows that a lexical item always has a tendency to get together with another word to form a pattern (Hunston & Francis, 2000).

Several resources were referred to as a guide in the analysis. The researcher referred to the primary references comprising Benson et al.'s (1986; 1997) *BBI Dictionary of English Word Combinations*, *Longman Dictionary of Contemporary English (5th edition)* (2009), and *Oxford Collocations Dictionary for Students of English* (2002). They provide good coverage of collocations used in legal contexts. The researcher also frequently referred to the *British National Corpus (BNC)* for Law in the analysis of the patterns which is available online at <http://www.lex Tutor.ca/conc/>.

Some measures were also taken while counting the patterns. The patterns which had been repeated (written more than once) in the essays were counted only once. Besides, the patterns which were noticed to have been copied directly from the Contract Acts

1950 were also not counted. This present study employed Dulay et al.'s (1982) framework, *Surface Strategy Taxonomy*, to determine the erroneous patterns. The patterns were counted as erroneous in cases of: (1) omission (deleting prepositions), for instance deletion of preposition *in* (the X position) in the following clause: *It is X contravention of section 2 (a) of the Contract Acts 1950.*, (2) addition⁴⁴ (adding prepositions to content words when they are unnecessary), for example *contravene with, reach to, and discuss about*; (3) misformation (making use of wrong prepositions), for example preposition *to* was used instead of *into* in the pattern *enter into the contract*, and (4) ordering (correct prepositions are wrongly sequenced), for example in the usage of phrasal verbs in *The guardian picked the wrong girl up.* instead of *The guardian picked up the wrong girl.*

The final step taken was to find a mutual agreement between raters to determine what constitutes erroneous patterns. One Law of Contract lecturer in FLAIR, a subject matter expert, was nominated as the second rater for this purpose. Once decided upon the rater, the erroneous patterns which had been analysed⁴⁵ were put in an individual list and sequenced under each question. This was purposely done for easy rating of the errors by the raters later. Since only 40 essays were analysed, a total of 40 lists containing the erroneous patterns were produced. Since the Law of Contract lecturer showed her agreements with all the erroneous patterns in the lists, it was decided, therefore, that a complete agreement was reached between the two raters.

⁴⁴ The category *misformation* (No. 3) may be used interchangeably with *misselection*.

⁴⁵ The analysis took about two weeks to finish (till the end of May).

3.1.3.3 The Results of the Needs Analyses

As stated previously, the preliminary study is considered essential for informing this researcher about the viability of this research. The interview conducted could provide a good insight into the respondents' difficulties with prepositions and the errors they produced could provide a basis for the modules to be designed in the second phase of the study (the experimental stage). The following two sections present the findings obtained from the preliminary study.

3.1.3.3.1 Findings from the Pre-Experimental Course Interview

Several important findings were obtained from the analysis of the interviews. The results indicated that prepositions and prepositional patterns were difficult and problematic grammatical items for the students to acquire. All students reported that prepositions were the grammatical items they were unsure of. Some were even unaware of the existence of prepositions and prepositional patterns though they had met them in reading and had used them in legal essays and assignments. Some even mentioned that they had confused prepositions with other parts of speech, particularly the conjunctions.

Meanwhile, the respondents gave various responses when asked about their coping strategies with prepositional phrases. The questions specifically had intended to find out how the students managed to produce prepositional patterns correctly, for example in writing, though they did not realise the existence of prepositions and the patterns such as *in contemplation of*, *in the light of*, and *subject to contract*. Some of them

informed that they had committed the patterns as one word to their memory, while others mentioned that they subconsciously learned the patterns through repeated exposures to lectures and legal materials. A few of them also reported that since the patterns were immensely used in the sample essays given by their lecturers, they regarded the patterns as something important to be learnt and used.

The respondents also confessed that their difficulty with prepositions was partly due to L1 interference and the grammar teaching method they was exposed to which emphasised more on form rather than usage. Some students even mentioned that they frequently used their own intuition in using prepositions, and this intuition meant resorting to Malay prepositions. They also admitted that the rote memorisation method used by teachers to teach prepositions in the primary and secondary schools did not help them a lot in learning prepositions. Finally, the fact that prepositions have their fixed patterns was never discussed by their English teachers in both the primary and secondary schools.

Besides L1 interference, some students admitted that legalese itself was a major barrier to them to acquire legal English and legal contents. Legalese was found to differ largely from general English due to its distinctive style. Legal maxims, specialised terminologies, and complicated nominal and prepositional phrases were cited as the major factors causing the difficulty. This language barrier hindered them from understanding legal texts and successfully conveying their thoughts and reasoning in answering PQ questions.

3.1.3.3.2 Findings from the Error Analysis Study

Table 3.2 presented the statistics of the students' production of prepositional patterns in the essay test. The statistics shows that the students produced quite a large number of deviant patterns - 1,500. This amounted to almost one-fifth of the accurate patterns. This figure may have increased up to 4500 patterns if I had taken into account the repeated erroneous patterns (sometimes more than three times). Verb + Preposition constructions were found to be their major difficulty.

Table 3.2: Students' performance in three PQ essays

PQ Essays	*PQ1	PQ2	PQ3	PQ1 + PQ2 + PQ3 (Total)
No. of words	16,000	10,000	10,500	36,500
No. of patterns	5,000	2,500	3,500	11,000
Accurate patterns	4,400	2,100	3,000	9,500
Erroneous patterns	600	400	500	1,500 ⁴⁶

*PQ1 comprised three sub-questions.

A total number of respondents (N) = 40

The findings showed that the errors were mainly caused by two main factors - 'interlingual' interference' (the negative transfer of Malay) and 'intralingual interference' (learner difficulty with the L2 itself) (Koosha & Jafarpour, 2006; Richards, 1974). These statistical findings confirmed the interview findings and the errors produced by the learners in the essays. All the findings became a strong basis for the design of the modules for treatment purposes in the experimental course, the second stage of the study. The sections that follow discuss the steps and procedures taken in designing the modules.

⁴⁶ If taken into consideration of the patterns which were repeated more than three times, the subjects actually had produced more than 4500 erroneous patterns. Many patterns were repeated since they wrote the same PQ essay questions.

3.1.4. Teaching Instruments

The first task carried out in the second phase of the study was module design. As mentioned previously, the erroneous patterns were used as the teaching instruments, in line with Bahns and Eldaw's (1993) suggestion to focus on teaching the most problematic collocations encountered by EFL students and ESP students (Jordan, 1997; Gavioli, 2005; Lewis, 2000).

The two modules were designed for this purpose. The first module (Data-Driven Learning module) was prepared for the intervention (experimental) group while the second module (non-DDL module) was designed for the control or comparison group. Stringent measures were taken in the preparation of the two modules. After the erroneous patterns had been identified (see Table 3.2), another step was taken. I randomly picked 40 erroneous patterns out of the total erroneous patterns (1500). The selection was based on the fact that the patterns had been produced erroneously in almost all of the students' scripts. Then I came up with a test, namely Error-Identification and Translation constituting 40 erroneous patterns (which were underlined) in the sentences. The test was run again on the 40 participants. The rationale for conducting this test was to ensure that the errors they had produced in the essays were indeed the true errors, not the mistakes⁴⁷. To do this, the students were first asked to rectify the errors of the patterns (underlined). Then, they were directed to compose a sentence comprising the pattern they had corrected. Finally, the subjects

⁴⁷ Ellis (1994) claims that mistakes occur due to slips but errors occur due to one's deficiency or lack in a language.

were required to translate the sentences into Malay⁴⁸. Test item number 33 is shown here as an example:

33. However, there is an **exception for** the general rule which is the postal rule.

Correction:

Your sentence:

Translation: _____

If the students still produced errors at this stage, then it could be confirmed that they actually lacked knowledge of the patterns, not making the mistakes. In checking the accuracy of the translated sentences, an expert translator, who is also a lecturer in FLC, UniSZA, was consulted. Since not all errors could be included in the module, the best way to determine this was to ensure that the patterns selected constitute the most frequent errors produced by the students. To do so, I selected the erroneous patterns produced by more than 28 students (more than 70% of the respondents). Based on this basis, 16 patterns were identified as shown in Table 3.3.

⁴⁸ The rationale for doing this was to consider Richard's (1974) claim that learners' L1 negative interference into L2 has been one of the determinant factors of errors.

Table 3.3: The most frequent errors produced in the error identification & translation test

No.	Erroneous patterns
1	bind + preposition
2	binding + preposition
3	bound + preposition
4	in + contrast + preposition
5	(be) + contrary + to
6	come + preposition
7	look + preposition
8	reach + preposition
9	discuss + preposition
10	aware + preposition
11	abide + preposition
12	approval + preposition
13	seek
14	contravene
15	enter + preposition
16	provide + preposition

Three more patterns were added to the list though. They were *as opposed to*, *discussion* + Preposition and *provision* + Preposition. The rationale for including them was simply because these three patterns were in the same category with some of the patterns in the list. The pattern *as opposed to* is in the same category with *in contrast to* and *(be) contrary to*, *discussion* + preposition is in the same category with *discuss* + preposition, and *provision* + preposition is in the same category with *provide* + preposition⁴⁹. Altogether, 19 patterns were finally decided to be included in the modules.

Several additional measures, however, were still taken. To confirm that the patterns were also the most frequent patterns in legal corpora, the researcher made use of the Law of Contract Corpus (LCC) comprising 256,083 words, the corpus compiled solely

⁴⁹ The difference is in the part of speech. While *discussion* + Prep is a nominal pattern, *discuss* + Prep is a verbal pattern.

for the module design purposes representing a specialised law of contract corpus (refer to Section 3.2.7 for the compilation of the corpus). The patterns were then checked using the AntConc 3.2.2 concordance tool which provides the lists of the most frequent words in any corpora which is free and downloadable from the Internet. Regarding a frequency cut-off point established for this LCC corpus, an occurrence of at least once per 256,083 words became the criterion for inclusion as a frequency word in this present study due the smaller and specialised corpus⁵⁰.

The word frequency was also checked using the British National Corpus (BNC) for Law of 2.2 million words available at <http://www.lextutor.ca>. The rationale for using the BNC for Law corpus is because the law curriculum in Malaysia is based on the British common law. Table 3.4 below clearly shows evidence that the words listed are among the most frequent words used in legal genre. For example, the first five words (in asterisk) - *binding*, *bound*, *provide*, *provision*, and *come* were ranked the highest most frequent words in the two corpora. This again affirms the inclusion of these words in the modules.

Table 3.4: Most frequent words based on the LCC and BNC for Law corpora

No.	Words	LCC	BNC (Law)
1	*binding	212	258
2	*bound	194	361
3	enter	93	234
4	*provide	83	885
5	*provision	82	999
6	*come	77	523
7	approval	44	120
8	aware	37	286
9	look	35	246
10	bind	34	65
11	reach	27	126

⁵⁰ McCarthy's (2006) criterion for the word frequency is if the word occurs at least 4 times per million words.

12	discussion	22	252
13	contrary to	16	271
14	seek	15	387
15	as opposed to	12	84
16	discuss	6	92
17	contravene	2	20
18	in contrast to	1	18
19	abide	1	11

Once the patterns were decided and their frequency of occurrences in legal contract discourse were observed, two sets of modules were prepared. One set was prepared for the experimental (DDL) group and another one was for the treated control (comparison) group (non-DDL). Since it was decided that the treatment would be given within a period of six weeks plus 1 revision week, the 19 patterns were then divided into six categories equivalent to six lessons. Table 3.5 shows the category of patterns in each lesson of the modules.

Table 3.5: Category of patterns in each lesson

Lessons	Category of colligations of prepositional patterns per lesson
1	⁵¹ * <i>bind</i> , <i>binding</i> + Prep, <i>bound</i> + Prep
2	<i>contrary to</i> , <i>in contrast to</i> , <i>as opposed to</i>
3	* <i>seek</i> , * <i>contravene</i> , ⁵² <i>discuss</i> , <i>discussion</i> + Prep
4	* <i>reach</i> , <i>come</i> + Prep, <i>enter</i> + Prep
5	<i>aware</i> + Prep, <i>provide</i> + Prep, <i>provision</i> + Prep, <i>abide</i> + Prep
6	<i>look</i> + Prep, <i>approval</i> + Prep

3.1.5 DDL and Non-DDL Approaches and Intervention

To investigate the impact of DDL instruction (after exposures to DDL) on the respondents' knowledge and production of colligations of prepositions, the DDL and non-DDL treatments were compared. This section will discuss not only a

⁵¹ The words *bind*, *seek*, *contravene*, and *reach* (in asterisk) were unnecessarily colligated by the subjects since they thought that the words could combine with prepositions.

⁵² Though the word *discuss* may also colligate with prepositions, for example *discuss with*, the subjects in this study often wrongly colligated *discuss* with *about* (L1 interference from Malay).

difference in approaches between the two treatments but also in the intervention procedures taking place during the treatments given in the experimental course. A summary of the approaches is given in Table 3.6 below.

Table 3.6: DDL v. non-DDL approach

Group	DDL (experimental)	non-DDL (control)
Approach	Middle-ground (Inductive & Deductive)	Deductive (full scaffolding)
Technique	Identify-Classify-Generalise	PPP (Presentation, Practice, Production)
Concept	A learner is a ‘research worker’ and the teacher the facilitator.	A learner is a recipient of knowledge and the teacher the knowledge provider.
Components ⁵³	<p>I. Introductory part (10 minutes)</p> <p>II. Performance part (80 minutes)</p> <p>Task A: Inductive learning process (40 minutes)</p> <p>Task B: Practice (40 minutes)</p> <p>Practice 1: Sentence-completion (15 minutes)</p> <p>Practice 2: Error identification and correction (10 minutes)</p> <p>Practice 3: Determining the semantic functions (5 minutes)</p> <p>Practice 4: Single-sentence construction (10 minutes)</p>	<p>I. Presentation (50 minutes)</p> <p>II. Practice and production (40 minutes)</p> <p>Practice A: Sentence-completion (15 minutes)</p> <p>Practice B: Error identification and correction (10 minutes)</p> <p>Practice C: Determining the semantic functions (5 minutes)</p> <p>Practice D: Single-sentence construction (10 minutes)</p>

DDL approach, as opposed to non-DDL, took a middle-ground position. This middle position approach strikes a balance between pure deductive and pure inductive. The students in the DDL group were scaffolded (guided) by the tasks given in the module. In completing the tasks, the students referred to the

⁵³ They are the components of lesson 1 of both modules. The duration spent on teaching this lesson is 1 hour 30 minutes as opposed to only one hour in the other lessons (lessons 2 to 6).

concordance lines both in the DDL module and online (BNC for Law)⁵⁴. On the other hand, the scaffolding given to non-DDL group was fully scaffolding rather than temporary. Teacher took full control of classroom in this fully deductive process.

In the experimental course, the respondents in the DDL group were asked to generalise rules based on the concordance data (as illustrated in Figure 3.2 below). They were instructed to follow the prompts (a guided DDL), followed by doing the practice task. The activities were done with the teacher-researcher assistance, temporary scaffolding given to assist learners in doing the problem-solving tasks. This scaffolding differs from the fully-guided instruction given by the teacher-researcher in the non-DDL approach as it takes a middle-ground position (striking a balance between pure inductive and pure deductive approaches).

In contrast, the learners in non-DDL group were expected to passively listen to the teacher-researcher's explanation. This explains why the presentation in non-DDL approach was carried out for about 50 minutes compared to only 10 minutes in DDL group. Meanwhile, while DDL students were introduced to the concept of lexico-grammar, in which the students were instructed to observe the words surrounding the KWIC (in this case, the word *binding*) or colligations in the concordance lines, the students in non-DDL group were taught prepositions in isolation. The sample sentences were given as examples compared to a large number of concordance data presented to DDL students.

⁵⁴Ideally, this type of scaffolding is temporary. The students are guided in the beginning of their inductive learning process before they are left to do concordance activities independently.

4. What is the part of speech of the word *binding* in the lines below?

Concordances: Taken from the Law of Contract Corpus (LCC)

14. which are made and are not intended (to be) rigid, **binding** arrangements. Salmon
16. he presumption that it was intended (to be) legally **binding**. The Court of Appeal
29. mediately posted an acceptance which (was) held **binding** because the delay

Figure 3.2: Prompts and concordance lines

The two modules differ in terms of their components and contents. The two main stages included in each lesson of DDL module are Introduction and Task Performance stages (see Appendix C for the DDL module). In this module, the most essential stage is Task Performance (of particular, Task A) since an inductive learning approach, the approach underlying DDL is implemented at this stage. At this stage also, the respondents in the experimental group were required to generalise and deduce the colligation of prepositional rules from the concordance lines presented in each of the six lessons of the DDL module.

Meanwhile, in Task B of DDL module, the students were given the opportunity to test the generalisation skills they had acquired by performing several practices in the four tasks - gap-filling, error-identification and correction, determining the semantic-function, and sentence writing production. Table 3.7 below illustrates the components of DDL module (Lesson 1) which constitutes the foundation of DDL module. The only difference among the six lessons of DDL module is that the time allocated to Lesson 1 was longer. It was carried out for one hour and 30 minutes compared to only one hour

allocated to the other lessons (Lessons 2 to 6). This was due to the many items covered in Lesson 1.

In contrast to DDL module, non-DDL module (see Appendix D) comprises two deductive teaching stages – Presentation (stage 1) and Practice and Production (stage II). Practice and Production were combined as one component in this study. Unlike DDL module, the introductory stage in non-DDL module constituted the most important stage. This is the stage where a deductive approach to teaching prepositions took place. This is also the stage where teacher plays a dominant role as knowledge provider (knower) and students the passive recipients of knowledge, applying Behaviourist theory. The students were first introduced and presented with the items. Later, they were instructed to practise and produce correct prepositions in Practices A to D, following the same routines of teaching English in conventional classrooms. The practice items, however, were similar in both DDL and non-DDL groups. Similar to DDL module, the time allocated to Lesson 1 of non-DDL module was also longer. It was carried out for one hour and 30 minutes compared to the time allocated to the rest of the lessons (Lessons 2 to 6). Table 3.7 below shows the components of non-DDL module which have become the basis for the design of all the six lessons in the module.

Table 3.7: Components of non-DDL module (Lesson 1)

Stage I. Presentation (50 minutes)
Stage II. Practice & Production (40 minutes)
Practice A: Sentence –Completion (15 minutes)
Practice B: Error Identification and Correction (10 minutes)
Practice C: Determining the Semantic-Functions (5 minutes)
Practice D: Single-sentence Construction (10 minutes)

3.1.6 Validity of the Module

One of the requirements that should be taken prior to any employment of a module is to check and evaluate whether it has content validity. Content validity is a measurement which can prove whether the module can evaluate whatever data it should (Majid Konting, 2004). In the context of this study, the module can be claimed to have content validity if it can prove that it has the potential to increase the knowledge and production of colligations of prepositions of the respondents. Russel (1974) suggests that a module is at the highest of validity if it can fulfil four characteristics: (1) it meets the target population, (2) it is well-taught and implemented, (3) time is sufficient to implement the whole module, and finally, (4) it has the potential to increase students' academic achievement.

To check further the content validity of the two modules, three lecturers who are also the subject matter experts, were consulted. They were two lecturers from UniSZA- an English lecturer and a Law of Contract lecturer, and an English lecturer (specialising in corpus linguistics) at the English Language Department of the Faculty of Languages and Linguistics, UM (University of Malaya, Malaysia). She was consulted particularly to check the content and face validity of DDL module. The English lecturer from UniSZA has had experience in teaching English for more than 25 years, and she is also an expert in the module construction. Meanwhile, the Law of Contract lecturer is the subject matter expert in the Law of Contract, and she has had experience in teaching law for more than 15 years. She was also the one responsible for developing the law courses and syllabi in FLAIR.

All the subject matter experts were requested to examine the contents of the modules and to certify whether the modules met the four characteristics mentioned by Russel (1974) above. A lecturer from UM was consulted since she is a subject matter expert in corpus linguistics and her expertise was needed to evaluate the very characteristics of DDL module including its underlying theory, the corpora designed and used, and the presentation of the concordance lines in the module. The three lecturers were asked to show their agreements or disagreements about the two modules in the evaluation forms given. Since the three experts showed their mutual agreements on the aspects of the modules, it can be claimed that this module has content and face validity and valid therefore to be used in the present study.

3.1.7 Corpora

The Law of Contract Corpus (LCC) is a corpus designed based on the law of contract textbooks and books of cases used by the students in the current semesters. They serve as the major sources of data in this study. The concordance lines used in the DDL module were mainly retrieved and copied from the LCC. The students were not allowed to get access to this corpus except for the concordance lines used in the modules.

While the LCC provides the main source of materials for the DDL module, the BNC for law serves as complementary materials. The corpus was chosen for two reasons: First, the corpus could provide opportunities for the DDL students to double check the rules they had deduced earlier from the concordance lines retrieved from the LCC in DDL module, and second, the BNC for Law online could serve as a motivational factor for keeping the students to stay in the course since the students could perform their search

online while working with the module. However, BNC for Law is not an authentic law of contract corpus. It consists of other legal genres.

Some essential aspects essential in the corpus design including content, representativeness, and size (Sinclair, 2004) were also observed. For example, to ensure that the content used is relevant to users and to comply with the copyright acts, ten per cents of the content of the students' law of contract reference books were included. This corpus comprises 15 files with a total of 256, 083 words, and a concordancer, namely AntConc 3.2.2 was employed in processing the data.

3.1.8 Pretest and Posttest Items

The design of the pretest/posttest items were conducted concurrently with the design of the two modules. The following section will describe about the test items in details.

3.1.8.1 Test Components

The pretest/posttest consisted of four tasks - gap-filling (10 items, worth 10 marks), error-identification and correction (10 items, worth 20 marks, 10 marks for error-identification, and 10 marks for error correction (if any)), semantic-function (5 items, worth 10 marks), and single-sentence construction (5 items, worth 20 marks). This totalled up to 60 marks (see Appendix E) for the pretest/posttest. Table 3.8 below shows the components of the tests.

Table 3.8: Test Components

No.	Test Components	Number of Items	Marks
1	gap-filling	10	10
2	error-identification & correction	10	20
3	semantic-functions	5	10
4	single-sentence construction	5	20
Total		30 items	60 marks

In the gap-filling task (Section 1), the subjects were required to complete the blanks with accurate prepositions. They were also instructed not to write anything in the blanks if prepositions were not necessary. Meanwhile, in the error-identification and correction task (Section 2), the subjects were required to perform two tasks. First, they had to identify whether the underlined prepositions were correct or wrong. If they found the prepositions underlined were correct, they were asked to mark C (stands for accurate prepositions) in the space provided. In contrast, if the prepositions underlined were wrong, their task was to mark I (stands for inaccurate prepositions) in the space. The rationale for testing these two tasks was to examine the subjects' awareness of the patterns (i.e. whether they realised that the words given can colligate with prepositions or not to form patterns). These two tasks measured the respondents' knowledge of the form of colligations of prepositions. The same tasks were also employed in many DDL studies investigating the effect of DDL instruction (see Boulton, 2009a, 2009b; Koosha & Jafarpour, 2006; Yoon & Jo, 2014).

The semantic-function task (Section 3) is a discrete test type, in which the context for the target word was given in a sentence, not a paragraph. In this task, the respondents were required to give the meanings of the underlined prepositions and prepositional patterns in the space provided. This task measured another aspect of knowing collocations, the semantic function (meaning). Stuart and Trelis (2006) concur that

guessing the semantic-functions of specialised patterns are two essential skills highly required of students with specialised disciplines for they indicate ESP learners' competence in internalising the construction of knowledge of specialised discourses. This task type is appropriate for the respondents were "assessed on their ability to supply the meaning" (Read, 2000: 162) through their recall of the target prepositions and prepositional patterns they had learned via the concordance lines in the DDL module and sample sentences in the non-DDL module. Mueller (2011) employed the same task in measuring the participants' use of collocational knowledge in determining prepositional senses. The only difference was that his respondents were given 15 options to choose from rather than to supply the meaning.

Finally, in the single-sentence construction task (Section 4), the subjects were asked to produce single sentences. The rationale was to examine the respondents' fluent production of prepositional patterns. The students were assessed on their accurate use of immediate and extended colligations and meaningful sentences. The same task type was also used in many DDL studies (see Balunda, 2009; Koosha & Jafarpour, 2006; Yanhui, 2008).

3.1.8.2 Test Validity and Reliability

To ensure the validity and reliability of the pretest/posttest, three types of validity were checked and these included face, content, and construct validity. To check the face validity, a TESL lecturer in FLC, UniSZA was asked to give his viewpoints on the test to check "...whether or not a test looks valid on its surface" (Jackson, 2003: 44). Besides, the test was also trialed on a group of semester 5 undergraduate law students

(32 pilot students) and their comments about the test were taken into consideration before a real pretest/posttest was conducted with the actual subjects.

A test is regarded as having content validity if it “has the items that satisfactorily assess the content being examined” (Jackson, 2003: 44). And the most important type of validity is construct validity. Jackson also states that a test is considered as having construct validity “if it considers the theory underlying its design and accurately measures a theoretical construct or trait that it is designed to measure”. To achieve this, the three lecturers who had reviewed the modules (see Section 3.2.5.2) were again asked for their viewpoints and agreements on the contents and constructs of the test items. For example, the law lecturer was asked whether the contents of the items in the test were within the parameters of the Law of Contract. The test items were also shown to the English lecturer in UniSZA to check whether the contents in the modules were reflected in the tests or not. Finally, a lecturer at the Faculty of Languages and Linguistics, University of Malaya (UM), and who is also an expert in corpus linguistics was consulted to check the construct validity of the modules and the test. They all showed their agreements with the contents and constructs of the test.

Finally, to ensure the reliability of the pretest/posttest items, the test was again tried on 32 semester 5⁵⁵ undergraduate law students. The test was re-tested two months later and analysed. The result indicated that there was a strong correlation between the scores in the test and re-test taken two months later in all the components - gap-filling ($r = 0.761$), error-identification and correction ($r = 0.731$), semantic-function ($r = 0.751$), and single-sentence construction ($r = 0.775$). A correlation of 0.70 and above is

⁵⁵ Semester 5 and semester 6 students refer to the same students. They were in semester 5 in the year 1999 (July session) and semester 6 in the year 2010 (December session, 2009/2010).

considered as a strong correlation in a self-constructed test (Jackson, 2003; Dornyei, 2007). Based on the results above, the pretest/posttest was considered as reliable to be used with the actual subjects in the study.

3.1.9 Pilot Studies

The pilot students who participated in the pilot study were semester five law undergraduates. During that time, there was only one group of semester five law undergraduates comprising only 32 students. They were the one-year seniors of the actual participants in this study, and who were considered as having the most similar attributes with the subjects. Similar to the actual participants, they had already finished Law of Contract I and II courses. They also had almost the same level of English proficiency. They scored either a Band 3 or 4 in MUET. Though it was more appropriate to take the students in the same semester with the actual participants; that is, semester three students, this could not be done so due to the small population of law students in FLAIR. There were only 48 semester three students during that time, and all of them had already been selected as participants in this study.

The pilot students helped paved the way for this study in many ways. They tried out the essay questions and interview questions conducted in the preliminary study. They also, as mentioned in Section 3.2.8, had tried out the pretest/posttest items to check for the face validity of the test. And most importantly is that, they were involved in the experimental study to try out DDL and non-DDL approaches and the modules used (though only Lesson 1). They gave considerable inputs in terms of providing feedback on: (1) the availability of the duration of time spent per module, (2) the effectiveness of

the delivery, (3) the suitability of the practice items, (4) the layout, and (5) an investigation of the effectiveness of the module in teaching the patterns as evidencing in: (a) the practice marks, and (b) the difference in the gain scores of the sentence completion, error-identification and correction, sentence completion, and overall tasks. Meanwhile, there were two main reasons why only Lesson 1 was piloted: (1) the same components were used in all the modules except for the different patterns, (2) the patterns in Lesson 1 (e.g., *bind*, *binding* + Preposition, and *bound* + Preposition were the toughest patterns (refer to Table 3.3 to show that many students produced errors on these patterns).

14 (7 DDL and 7 non-DDL) students piloted the first experimental course. The course ran for one hour and the groups were kept constant (Jackson, 2003) in the beginning of course based on their MUET scores. During this period, there were only two practice items constructed in Lesson 1 of the two modules - gap-filling and error-identification and correction tasks. The two practices that they did at the end of module were considered as a test to measure their performance. After taking the test⁵⁶, the results showed a non-significant difference in the scores of the two practice items between the two pilot groups (gap-filling, $p = 0.844$; error-identification and correction, $p = 0.439$).

Due to the non-significant results shown, some changes were made later to Lesson 1 to counter several weaknesses noticed from the first study. For example, since the patterns (*bind*, *binding*, and *bound*) in Lesson 1 were the hardest patterns (refer to Table 3.3 to show that the students frequently produced errors on these patterns), I decided that the teaching period should be lengthened to 1 hour and 30 minutes instead

⁵⁶ The test was actually the end-of-course test which came in the form of the Practice task. A pretest was not given in any of the pilot courses.

of one hour. The other lessons, however, should keep a one-hour period. Second, I also realised that two practice components (semantic-function and single-sentence construction tasks) should have been added to really test the learners' semantic-function and production of prepositions as used in legal discourse. This is due to the polysemous nature of prepositions - prepositions accrue different meanings and functions when used in different contexts, and that learners' fluent production of collocational patterns can be shown through their spoken and written production (Lewis, 2000). All instructions to the practice components were also made clear by providing the sample questions and answers.

The second experimental course was later conducted with the other 14 pilot students to avoid biases. The results in the posttest showed that there was a significant difference between the two groups in the four practice tasks of Lesson 1 - gap-filling ($p = 0.027$), error-identification and correction ($p = 0.038$), semantic-function ($p = 0.016$), and single-sentence construction ($p = 0.003$). The students also responded positively to the DDL approach in the post-experimental interview. The findings then confirmed about the viability of the experimental design to be conducted with the actual participants.

The last task that the pilot subjects in the DDL group of the second experimental course did was answering the survey questionnaire. The aim was to get their feedback on the items in the survey. Some changes to the items were later made based on the feedback given earlier. The items were then run in the SPSS version 16.0 using the Cronbach Alpha⁵⁷ to find the reliability (internal consistency) among them. The three items which were found to have a reliability correlation below $\text{Alpha} = 0.50$ were deleted. Hence, I

⁵⁷ Cronbach's Alpha can take values between 0 and 1.

re-examined each item using the Corrected Item-Total Correlation to find the overall reliability of the items. After it was found that the Cronbach's alpha for the overall reliability of the items was $\text{Alpha} = 0.85$, that is larger than 0.70^{58} , the questionnaire was now fit to be run on the actual participants.

3.1.10 Equating Actual Participants

Gay and Airisian (2003) suggest that a valid experimental study design should consist of at least 30 participants and more. This means that the respondents should be more than 15 respondents in a treatment group and another 15 in a control group. To guarantee this, 40 students were recruited in two groups - 20 DDL students (5 males and 15 females) and 20 non-DDL students (4 males and 16 females). Meanwhile, to ensure group homogeneity as a means of avoiding 'confounding variables' (Creswell, 2008; Jackson, 2003), the respondents were equated in the beginning of course (during the first qual phase) based on three criteria: (1) MUET scores; (2) previous legal education, and (3) pretest results.

The respondents' level of English proficiency was measured by their achievement in MUET. As a means of securing group homogeneity on this aspect, the students were grouped based on the MUET scores (refer to Table 3.1 for the distribution of MUET scores). Another measure taken to secure group homogeneity is by equating the respondents according to their previous education. 9 respondents who had a diploma degree in law were placed in DDL group and another 9 were placed equally in non-DDL group. Meanwhile, 7 respondents who had attended a foundation in law

⁵⁸ Many statisticians have set the $\text{Alpha} = 0.70$ and above to demarcate a reliable variable.

programme (the programme that prepared them only with English communication and legal skills but not the content subjects) were placed in DDL group followed by another 7 students who had the same education in non-DDL group. Finally, 5 respondents (2 in DDL and 3 in non-DDL groups) who had STPM and 3 respondents (2 in DDL and 1 in non-DDL groups) who had STAM⁵⁹ did not have both legal content knowledge and legal skills prior to joining the programme (see Table 3.9 for the distribution of the students' previous education).

Table 3.9: Respondents' previous education

Previous Education	DDL N = 20	Non-DDL N = 20
Diploma in Law	9	9
Foundation in Law	7	7
STPM (Malaysian Higher Certificate of Education)	2	3
STAM (Malaysian Higher Certificate of Religion (Islam))	2	1

The third measure employed to equate the respondents is the pretest scores. The pretest was administered before the treatment period. The results of the Mann-Whitney test showed that no significant difference was found between the two groups in all the test components - gap-filling ($p = 0.123$), error-identification and correction ($p = 0.784$), semantic-function ($p = 0.384$), and single-sentence construction ($p = 0.903$). It can be concluded therefore that the two groups were at par with each other at the beginning of the course.

⁵⁹ STPM and STAM are two pre-university programmes prepared for students not entering any diploma or matriculation programmes.

3.1.11 Experimental (Intervention) Course

The experimental (intervention) course began after all the preliminary materials and procedures were completed. The students were given a two-hour treatment, one hour for the DDL group and another hour for the non-DDL group. This was a back-to-back treatment to control the leakage and transferring of information from one group to another. A two-hour computer training session was also conducted with DDL subjects to equip them with computer technicalities, and also to introduce them to concordance lines, the lextutor programme online (the website of the BNC corpus for law), and LCC corpus. A description of the intervention taking place in the experimental course was given earlier in Section 3.2.5.

The actual teaching period was seven weeks (six weeks for covering the six lessons plus one revision week). Cohen, Monion, and Morrison (2007) contend that seven weeks constitute an acceptable period to conduct an experimental study. Since only one linguistic component (colligations of prepositions) was focused on in the experimental course, a seven-week experimental course was considered a valid period for conducting an experimental course. The respondents would gain enough exposure to the patterns and meanings of colligations of prepositions within this period, and learning more patterns would not ultimately give an incremental effect. An immediate posttest was carried out after the last lesson, and two more data from the survey questionnaire and interviews were collected after the intervention to uncover the respondents' in-depth perceptions about the course.

The treatment in both DDL and non-DDL groups was carried out for seven weeks. There are many potential threats to validity that had become the primary concerns of the researcher before the setting up of the seven week intervention sessions. Some might argue that the students can acquire the patterns from exposure to outside English sources such as lectures, tutorials, or online materials. These potential threats were controlled by: (1) giving a back-to-back treatment; (2) ensuring the modules were used during the intervention sessions only, and (3) showing evidence that the law of contract phraseology differs a great deal from the law of torts phraseology.

Giving a back-to-back treatment was one of the measures taken by the researcher to control external validity. This was carried out in order to prevent the leakage of information from DDL to non-DDL group. The teaching schedule of Module 1 was scheduled on Monday from 2:00 p.m. to 3:30 p.m. for the experimental group and from 4:00 p.m. to 5:30 p.m. for the comparison group. The rest of the intervention sessions took place every Monday of the week from 2:00 p.m. to 3:00 p.m. for DDL group and from 3:30 p.m. to 4:30 p.m. for non-DDL group.

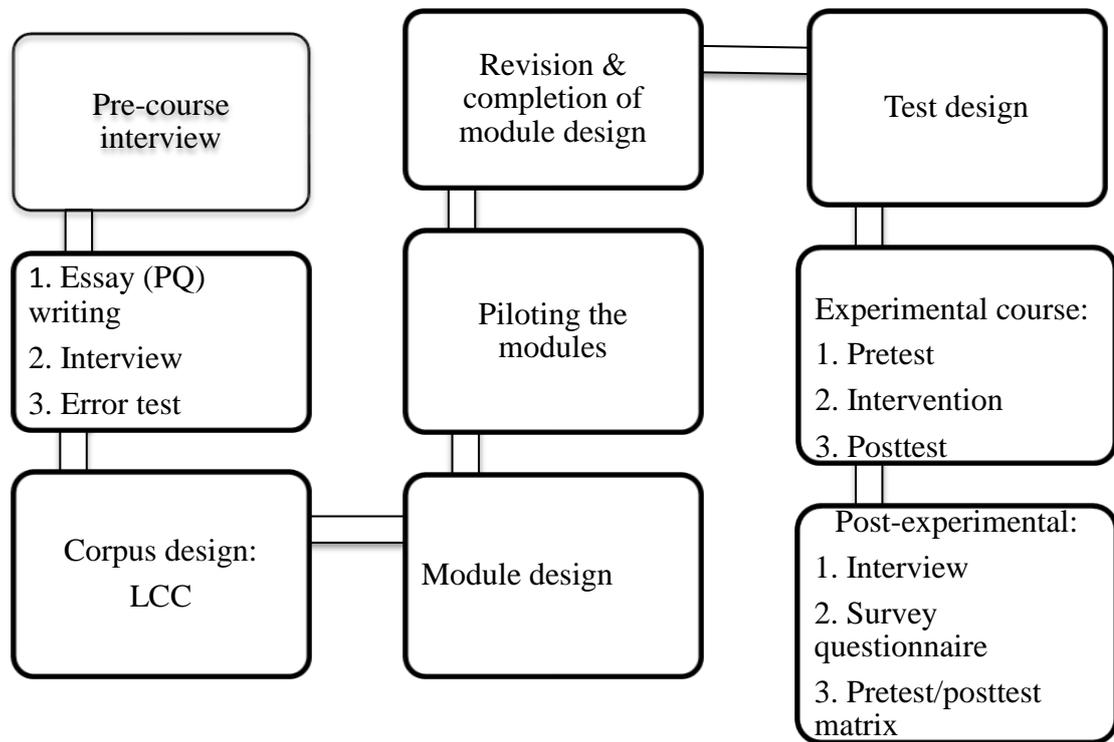
The two modules were the primary teaching materials used by the researcher and respondents in the treatment sessions. In order to prevent the students from performing the activities in advance prior to the instruction, and from looking for the answers from outside resources, the researcher did not allow the respondents to bring back the modules.

Some might argue that outside English contexts that the students were exposed to such as lectures, tutorials, and online journals might also influence the students' performance

in colligations of prepositions. This consideration can be explained in terms of the specialised nature of the law of contract phraseology itself. The colligations of prepositional patterns selected in the modules constitute the most frequently used patterns in the law of contract genre. The usages of those patterns in other legal genres, for example in the law of torts genre, are rather rare. Due to its specialised nature, it can be claimed that the patterns produced were not influenced from other resources. In addition to that, the respondents had been introduced to the concept of colligations and patterns only recently. Some of them were still grappling with the patterns, particularly in understanding the concept and recognising them before the course ended. The respondents' admission about their difficulty in acquiring those patterns, as evident from the post-interview responses further strengthens this argument. To conclude, all the given rationales have justified the non-presence of potential threats which may potentially influence the results and validity of the experiment.

Several processes and procedures were undertaken in executing this experimental study design. The summary of the processes and procedures involved in this study is illustrated in Table 3.10.

Table 3.10: Research flows & processes: Module design & experimentation



3.2 Research Instruments and Data Collection

This section explains the research tools used in collecting the data.

3.2.1 Pretest/Posttest

The pretest/posttest (the same test) was the main research tool employed in the present study. It was designed specifically to examine the impact of DDL instruction to answer research questions 1 and 2. The pretest also served as an entrance test to ensure the group's homogeneity. Meanwhile, the posttest was carried out with the respondents to investigate any change in the knowledge and production of colligations of prepositions immediately after the last treatment in week seven. A combination of different methods

of data collection was thought to give a more rounded picture of the participants' attitudes and evaluation of materials, as well as of the impact of DDL on learning and performance. To this end, the triangulation of data through tests, questionnaires, and interviews was considered a good basis for generating insights. The following sections describe the triangulated data collected after the experimental course to answer research question 3.

3.2.2 Post-Experimental Interview (10 DDL students)

As the quantitative data (pretest/posttest) would not be sufficient to give in-depth information about the efficacy and efficiency of the DDL approach, the interview sessions were held with 10 students in the DDL group right after the experimental course. The interview should have involved 5 high scorers and 5 low scorers. However, only 3 low scorers had agreed to participate in the interview. The 7 high scorers were classified as those who scored 43 to 56 out of 60 marks, the total score of the four tasks. Meanwhile, the low scorers were classified as those who obtained the range score between 35 and 42.

The interview sessions were all conducted in my office, a quiet place. The place was also free from any disturbances. The interview questions were clarified to the students prior to the interview to ensure clarity of the questions, and the permission to video-tape the conversations were obtained beforehand. Each respondent was shown the posttest script containing their past results. The researcher also supplied the module (Lessons 1 to 6) to give them a chance to recall the module content and to ensure the preciseness of their responses, particularly in answering the questions about the module.

3.2.3 Survey Questionnaire

The survey questionnaire was designed to gain the students' perceptions of the DDL approach and the use of corpus technology in general. 10 respondents in the DDL group were involved in the survey. The questionnaire comprises 30 items and 4 sub-sections including: (1) students' perceptions on DDL vs. non-DDL approaches; (2) the advantages of corpus use; (3) difficulties or problems in corpus use, and (4) the usage of corpus in grammar and preposition learning. The questionnaire items were adapted from Yoon (2006) and Boulton (2009b). It was a six-point Likert Scale ranging from 1 (Strongly Disagree) to 6 (Strongly Agree).

Before running the test items on the actual participants, the test items were first tried on seven pilot students⁶⁰ in the DDL group (semester 5 law students) who were involved in the second experimental course (refer to Section 3.2.9) to ensure the reliability (internal consistency) of the variables. The items were run in the SPSS version 16.0 using the Cronbach Alpha⁶¹ to find the reliability among them. Three items which were found to have a reliability correlation below $\text{Alpha} = 0.50$ were deleted. Hence, the researcher re-examined each item using the corrected item-total correlation to find the overall reliability of the items. After it was found that the Cronbach's alpha for the overall reliability of the items was $\text{Alpha} = 0.85$, that is larger than 0.70 ⁶², the questionnaire was now fit to be run on the actual participants. The survey questionnaire was conducted with the actual participants the following week after the completion of the interview sessions.

⁶⁰ The employment of seven pilot students could not be avoided due to the small number of students (only seven) who participated in the study itself.

⁶¹ Cronbach's Alpha can take values between 0 and 1.

⁶² Many statisticians set the $\text{Alpha} = 0.70$ and above to demarcate a reliable variable.

3.2.4 Individual Students' Performance in the Pretest/Posttest

Taking another dimension, this study also investigated in-depth of the upward and downward trends of individual students' performance in each task, in relation to their previous education (legal/non-legal)⁶³. In doing so, the pretest/posttest scores were revisited. The score of each task score was compared and analysed for this purpose.

3.3 Data Analysis

As mentioned previously, the data collected in this study comprised the data which had been collected before and after the intervention course. In the final section of the study, I will describe how all the data were analysed.

3.3.1 Pretest and Posttest

The respondents' knowledge and production of colligations of prepositional patterns in this study were tested before and immediately after the experimental course in week seven. In other words, the subjects' performance was measured only twice - at the beginning and end of the experimental course.

Before carrying out the analysis of the pretest and posttest results, the researcher marked all the students' answers. However, in order to obtain reliability in the scoring,

⁶³ The respondents, both in DDL and non-DDL groups were divided into 4 groups based on their previous education before they did a bachelor degree in law in FLAIR, UniSZA. The groups comprised the foundation in law, diploma in law, STPM, and STAM (see Table 3.9).

the last section of the pretest/posttest⁶⁴, the single-sentence construction, was also marked by the second rater, the Law of Contract lecturer, before the total scores were analysed using the SPSS version 16.0.

In this present study, two inferential statistics were used - the Mann-Whitney U test and Wilcoxon Signed-Rank test. The Mann-Whitney U test (independent sample U test) was used to answer research question 1, aiming at investigating the impact of exposures to DDL approach. It is a non-parametric test operating similar as an independent sample t test (a parametric test) to measure a difference in the median scores between the two independent groups.

According to Chua (2008) and Creswell (2008), a non-parametric test should be used instead of a parametric test if the data cannot meet several criteria such as small sample size and samples are not selected through random assignment but rather conveniently assigned, thus violating the distribution assumptions of parametric tests. In this study, the Mann-Whitney U test, an independent non-parametric test, was employed instead of the alternative independent parametric t-test because of the reasons mentioned earlier. In this study, the sample size was small ($n = 40$)⁶⁵, and the selection of participants in the quasi-experimental designed in the present study was based on purposive sampling (non-probability sampling) instead of random sampling (probability sampling) in a true experimental design. These two factors contributed to violation of the normal distribution assumptions of parametric tests.

⁶⁴ The answer key to the three sections of the pretest/posttest had been shown to the Law of Contract lecturer for her perusal prior to the marking of the three sections which was conducted by the researcher.

⁶⁵ A small sample size consisting of 30 respondents is the minimum number considered in the analysis of data using a parametric test (e.g., t-test) (Daniel, 2009; Healey, 2009). Even though the sample size in this study exceeded 30 (comprising 40 respondents), the sample selection used in the present study still violated the normal distribution assumptions of parametric tests.

The second inferential statistics, the dependent Wilcoxon Signed-Rank test, was used to analyse the impact of the two treatments within the DDL and non-DDL groups. Though no specific research questions were designed to investigate the within-group effects of the two approaches, the statistical inferential tool was still employed to examine the within-group effects to strengthen the findings. The test was equivalent to the dependent t-test (a parametric test) to measure the repeated scores of individuals in the same group. In doing this, I investigated any change in scores from one point of time (before the intervention course) to another (after the seven-week intervention course) by comparing the two sets of scores (pretest and posttest) from the same participants in the DDL and non-DDL groups. To sum up, the inferential statistical analyses were undertaken to examine both within-group effects and between-group effects of both treatments.

Non-parametric tests should be used instead of parametric tests when assumptions about the homogeneity of distributions across samples have been violated. Prior to the employment of the Mann-Whitney U test and Wilcoxon-Signed Rank test, the researcher had evaluated the distributions for normality of variances using both statistical (tests of Kolmogorov-Smirnov, Shapira-Wilks, and Lilliefors statistics) and visual (Histogram and Boxplot) methods.

Meanwhile, the effect sizes (expressed in the *r*-value) in the non-parametric tests were also measured by calculating a difference between the median of the two groups (Field, 2009). Effect size is very essential for it informs readers about the practical significance (magnitude) of the results (Kotrlík, Williams, & Jabor, 2011). According to Sullivan and Feinn (2012: para 5), “While a *p*-value [statistical significance] can inform

the reader whether an effect exists, the *p*-value will not reveal the size of the effect". Cohen's (1988, as cited in Kotrlik et al., 2011) classification for effect size values (small ≥ 0.10 ; medium ≥ 0.30 ; large ≥ 0.05) of the non-parametric tests was employed in the present study.

3.3.2 Post-Experimental Interview (DDL group)

All the interview conversations conducted with 10 DDL students were recorded and transcribed before they were analysed manually. The analysis was done manually due to the small sample size. The data was then analysed for themes (Creswell, 2009).

3.3.3 Survey Questionnaire

After collecting the learners' responses, all the data were keyed in the SPSS version 16.0. The descriptive data were analysed statistically in percentages.

3.3.4 Individual Students' Performance

As stated in section 3.4.2, the pretest and posttest results were analysed quantitatively using the Mann-Whitney U test to measure a between-group effect and the Wilcoxon Signed-Rank test to measure a within-group effect. In order to investigate whether there was an increase or a decrease (upward or downward trends) in the test scores in relation to their previous education (legal/non-legal), the pretest/posttest scores were reemployed. This way, a difference in each task and overall score of the pretest and posttest was calculated. Besides, to observe a difference in the students' individual

performance in relation to their previous education, the mean of each task produced by the students in pretest and posttest and the individual students' performance in each task were analysed and compared. A summary of all the research instruments and data analyses used in the present study was given in Table 3.11.

Table 3.11: Research instruments and data analyses

Research questions (RQ)	Research instruments	Data analyses
<p>RQ 1: How does exposure to DDL impact on UniSZA's law undergraduates' performance in colligations of prepositions?</p> <p>Hypothesis 1: The students who are exposed to DDL approach will perform significantly better in the knowledge and use of colligations of prepositions than will the students who are exposed to non-DDL approach.</p>	Posttest	<p>SPSS version 16.0 Mann-Whitney U test</p> <p>Purpose:</p> <p>To measure between-group performance by comparing the students' overall scores of DDL and non-DDL groups.</p>
<p>RQ2: To what extent does exposure to DDL influence UniSZA's law undergraduates' knowledge of colligations of prepositions in terms of: (a) form, (b) meaning, and (c) production?</p> <p>Hypothesis 2: The students who are exposed to DDL approach will demonstrate significantly higher knowledge of the forms, meanings, and production of colligations of prepositions than will the students who are exposed to non-DDL approach.</p>	Posttest	<p>SPSS version 16.0 Mann-Whitney U test</p> <p>Purpose:</p> <p>To measure between-group performance by comparing the students' scores in each task of DDL and non-DDL groups.</p>
	Pretest/posttest	<p>SPSS version 16.0 Wilcoxon Signed-Rank test</p> <p>Purpose:</p> <p>To measure within-group performance by comparing the students' pretest and posttest scores in each task of both groups.</p>

RQ3: What are the factors which influence the students' knowledge of form, meaning, and production of colligations of prepositions?	a. Post-course interview	→	manual analysis
	b. Survey questionnaire (Likert Scale)	→	percentages
	c. Pretest-posttest results	→	manual analysis (difference and mean scores)

3.4 Summary

This chapter describes the research methodology of the study. This is a mixed-methods study in which both the quantitative and qualitative data were analysed. The triangulated data were the pretest/posttest results, post-experimental course interviews with DDL students, and survey questionnaires. The findings obtained and discussion of the results will be dealt with in Chapter Four.

CHAPTER FOUR

FINDINGS AND DISCUSSION

4.0 Introduction

Achieving colligational competence, especially in the knowledge and production of colligations of prepositions is crucial for law undergraduates to ensure success in their future legal professions. Owing to the prevalence of colligational phrases in legal texts, a good teaching approach, namely the one which can raise law students' awareness of colligational patterns is essential to be introduced. This study purports to investigate the effectiveness of DDL approach in enhancing the knowledge and production of colligations of prepositions among law undergraduates in FLAIR, UniSZA. Specifically, this study aims to reach three objectives: (1) to examine the extent to how much exposure to DDL impacts on UniSZA's law undergraduates' performance in colligations of prepositions; (2) to investigate the extent to how much exposure to DDL influences UniSZA's law undergraduates' knowledge of colligations of prepositions in terms of form, meaning, and production, and (3) to explore the factors which influence the students' knowledge of the form, meaning, and production of colligations of prepositions.

The theoretical premises underpinning this study are Firth's contextual theory of meaning (1957b) and Vygotsky's (1978) socio-cultural or scaffolding theory (a constructivist theory). Firth's theory (1957b, as cited in Tognini-Bonelli, 2001) postulates that the meanings of speech events could be derived both from the contexts

of culture (situational/extra-linguistic) and contexts of environments (at linguistic level). The meanings at linguistic level could be achieved via observations of recurrent and repetitive patterns in the concordance lines and generalisations of rules and meanings of the patterns. In the process of meaning-making, especially in the beginning stage of DDL (within the Zone of Proximal Development), students often require teacher to scaffold inductive learning (constructive process) before they are left alone to generalise the rules and meanings independently. To prove the assumptions made earlier and to answer the research questions that follow, this chapter presents the findings and discuss the results at length in the light of the two theoretical premises.

The three research questions include:

1. How does exposure to DDL impact on the University of Sultan Zainal Abidin (UniSZA)'s law undergraduates' performance in colligations of prepositions?
2. To what extent does exposure to DDL influence UniSZA's law undergraduates' knowledge of colligations of prepositions in terms of
 - a. form?
 - b. meaning?
 - c. production?
3. What are the factors which influence the students' knowledge of form, meaning, and production of colligations of prepositions?

4.1 Research Findings

This section discusses the study findings obtained from the analyses of data based on the three research questions.

4.1.1 Research Finding 1

This sub-section discusses the results obtained from the analysis of data based on the first research question:

How does exposure to DDL impact on UniSZA's law undergraduates' performance in colligations of prepositions?

The research hypothesis formulated for the research question is as follows:

Hypothesis 1: The students who are exposed to DDL approach will perform significantly better in colligations of prepositions than will the students who are exposed to non-DDL approach.

Research Finding: Significant impact on the overall performance of colligations of prepositions

Based on Table 4.1, the Mann-Whitney U test has indicated that there was a significant difference in the overall score of the posttest between DDL and non-DDL groups ($U = 91.500$, $z = -2.940$, $p = 0.003$, $r = -0.465$). By comparing the two mean ranks of DDL and non-DDL groups, it was evident also that the mean rank value of DDL group

(mean rank = 25.93) was greater than the mean rank value of non-DDL group (mean rank=15.08). This clearly showed that the students in DDL group performed significantly better than those in non-DDL group in the overall performance of colligations of prepositions - form, meaning, and production. The effect size of $r = -0.465$ represents a medium to large effect, thus indicating that the effect of DDL to non-DDL was a substantive one.

Table 4.1: Between-group overall score

Group	N	Mean Rank	U value	z value	p value	r value
DDL	20	25.93	91.500	-2.940	**0.003	-0.465
Non-DDL	20	15.08				
Total	40					

Note: Significant at $**p < 0.01$

The significant impact of DDL on the overall performance in colligations of prepositions can be explained in many ways. The researchers such as Boulton (2009c, 2010a), Hadley (2002), Koosha and Jafarpour (2006), Nikoletta (2010), and Yanhui (2008) concur that intense exposure to a large number of legal prepositional patterns which are ‘repeated’ and ‘renewal’ in their ‘environments’ or concordance lines (Tognini-Bonelli, 2001) provide a lot of opportunities for learners to meet the real usages of the searched words (KWICs) in their contexts (environments) via immediate and extended co-texts. Due to the fact that collocation errors are not easy to be explained except in a large number of contexts (Lewis, 1997, 2000), especially colligations of prepositional errors (Celce-Murcia & Larsen-Freeman, 1999), providing

a large amount of concordance data to the students had resulted in an increase of their potential to explain the erroneous patterns.

Besides, based on the fact that prepositions have ‘semi-lexical’ functions (having both lexical and grammatical functions) (Littlefield, 2011), the tasks such as recognising and locating prepositional meanings and functions would be difficult given few contexts. By exposing learners to a considerable number of concordance lines, as in the case of DDL students in the present study, this had resulted in a significant increase in their performance of colligations of prepositions. The result of this study has supported Firth’s (1957b, as cited in Tognini-Bonelli, 2001) ‘contextual theory of meaning’, the theory which posits that the meanings of speech events can be observed via detection of their linguistic environments, immediate and extended, and which are ‘repetitive’ and ‘renewal’ in a much larger context. In the context of the present study, a much larger context constitutes the law discourse community.

The DDL students’ significant achievement can also be explained in terms of the new skill learned in the DDL course - detection skill. In the process of meaning-making, they had to use *Identify-Classify-Generalise* technique proposed by Johns (1991). This technique had enabled the students to perceive the psychological associations among legal prepositional phrases (perceived as single entities or ‘complementary’ rather than as separate entities) which come before and after the KWICs or target patterns (Hoey, 2005; Hunston & Francis, 2000; Sinclair, 1991). This, however, was different in the non-DDL learning environment in which the students had to rely only on made-up and limited contexts, thus hindering them from making accurate guesses of the meanings and usages of the target words.

The significant result can also be explained in terms of the use of corpus linguistics as a method of linguistic detection which had improved the DDL students' colligational performance regardless of their proficiency. The law students placed in both DDL and non-DDL groups had different levels of English proficiency. Though their knowledge of colligations of prepositions was the same in the beginning of course (based on the pretest results), different English proficiency level still impacted on the students' acquisition of colligations of prepositions. The results showed that the students with different levels of general English proficiency in DDL group (intermediate to advanced) outperformed their counterparts in non-DDL group. The findings of this study supported Boulton's (2007, 2008, 2009c, 2010a) and Koosha and Jafarpour's (2006) findings on colligations of prepositions. It was found in Koosha and Jafarpour's study that DDL approach was more effective than the Grammar Translation Method in increasing the knowledge of colligations of prepositions among the lower, intermediate, and advanced EFL Iranian university students.

According to Bloomfield (1942), Chomsky (1965), Lado (1978), Lewis (2000), and Roulet (1978), learner proficiency is conventionally measured in terms of linguistic accuracy. Learners are highly appraised if they are able to produce sentences or utterances according to the formal rules. However, quite often, there are occurrences when these groups of 'proficient' learners produce sentences that are grammatically error-free but were argued by Bahns & Eldaw (1993), Brown (1974), Gozd-Roszkowski (2004), Howarth (1998), Mahmoud (2005), and Pawley & Syder (1983) as not used by the native speakers of the language (discourse community). Some researchers have revealed the existence of a positive correlation between production of collocation with learner competence or general English proficiency (Al-Zahrani, 1998;

Chang, 1997; Hsu, 2002; Koosha & Jafarpour, 2006). The above arguments were in parallel with the results revealed in this study - if collocations are consciously taught, students' awareness of collocation may be raised, resulted in their increased performance regardless of their level of English proficiency (intermediate or advanced).

Besides, the significant result of this study can also be explained in terms of an emphasis given on teaching the colligations of prepositions in the DDL course. Bahns and Eldaw (1993), Lewis (2000), and Nesselhauf (2005) argue that a part of ESL teaching should be based on collocation, an area which has been neglected by many EFL and ESL teachers. Collocations are instances of actual language use (Partington, 1998), and by exposing learners to real ESP contexts, the elements of lexis, concepts, usages, and pragmatics of specialised languages can be grasped easily. Lexico-grammatical patterns constitute the construction of knowledge of specialised texts (Stuart & Trelis, 2006), and they become one of the most essential elements in legal discourse (Gavioli, 2001, 2006). DDL has remarkably told us that a great focus only on the forms of prepositions and the words next to them is a false start. Colligations of prepositions in legal texts which form the construction of legal knowledge are in fact primed throughout a sentence (Hoey, 2005). They require more of students' awareness of the sense relationship between patterns (Woolard, 2000). Under DDL approach, the forms, meanings, and uses of specialised discourses could be learnt easily (Fuentes, 2001; Hinkel, 2005; Kavaliauskiene, 2005).

An adoption of the middle-ground position of DDL, a combination of inductive and deductive approaches (Nunan, 1999) which strikes a balance between the full process and product approaches (Rutherford, 1987), is another explanation to the significant

results. While DDL learning is basically carried out independently, the respondents in this study received two types of treatment – scaffolded DDL (deductive) and hands-on practices (inductive). The two approaches enabled the respondents to make meaningful and accurate guesses of the semantic functions of colligational patterns for they were equipped with enough schemata (concordance data) (Nunan, 1999) and scaffolded tasks (Le Thanh, 2010). The same treatment, however, was not received by non-DDL students. Though these students were fully assisted (given deductive treatment), they lacked inductive learning skill and received fewer contexts than a large amount of data received by the DDL learners. In other words, the main factor contributing to the DDL students' improved performance was the DDL approach itself. DDL “appears to utilise the strengths of both product and process approaches to teaching grammar successfully” (Hadley, 2002: 106). This study findings support Vygotsky's socio-cultural learning theory (1978, as cited in Lantolf and Thorne, 2006) that learners, if in the process of learning, received the support from their teachers (capable adults) in the form of guided tasks in the process of learning, they would be more capable of doing their learning independently at a later stage.

Finally, the employment of the DDL module that utilised prepared concordance printouts is another explanation which can describe the DDL students' positive end-of-course results. The module acted as a catalyst for the respondents to perform an inductive learning process since the concordance data were prepared in the form of a traditional grammar book, and each activity was initiated by the guiding (problem-solving) tasks. Knowing the fact that many Asian students are used to the traditional (fully deductive) grammar teaching methods and materials (Smith, 2009), the DDL module used by the students compensated for the conventional grammar materials

introduced in their grammar education before. In other words, the use of the module “can be a transitional step to train learners to become successful hands-on corpus users” (Yoon & Jo, 2014: 98), and its use is “a compromise in an attempt to reconcile the extraordinary (DDL) with the ordinary published [grammar] materials” (Boulton, 2010a: 43). Moreover, since many do not encourage a total abandonment of the conventional grammar book, particularly at the very beginning of DDL study (see Chambers, 2005; Meunier, 2002; Rapti, 2013), introducing a module assimilating more of a conventional grammar textbook had brought many good benefits to the learners.

Similarly, adapting to a new learning method might incur some time for learners as this might be affected by learner factors such as motivation and anxiety (Ellis, 1994). Anxiety or fear of trying out inductive tasks is common among DDL beginners (Boulton, 2010a; Hadley, 2002; Yoon, 2005), and it is persistent especially if corpus exploration is carried out independently (Johns, 2002). The employment of the DDL module with this group of learners might have motivated and reduced their fear, resulted in their increased performance after the DDL course.

4.1.2 Research Finding 2

This section discusses the results obtained from the analysis of the data based on the second research question:

To what extent does exposure to DDL influence UniSZA’s law undergraduates’ knowledge of colligations of prepositions in terms of: (a) form; (b) meaning, and (c) production?

The research hypothesis formulated for the research question is as follows:

Hypothesis 2: The students who are exposed the DDL approach will demonstrate significantly higher knowledge than will the students who are exposed to non-DDL approach in terms of: (a) form; meaning, and production.

4.1.2.1 Significant Impact on the Knowledge of Form

This research question was answered by comparing the posttest scores of the two tasks - gap-filling and error-identification and correction. Based on Table 4.2, the results of the Mann-Whitney U test indicated that there was a significant difference in the gain score of the posttest in the gap-filling task between DDL group and non-DDL group ($U = 120.5$, $z = -2.209$, $p = 0.027$, $r = -0.349$). By comparing the two mean ranks of DDL and non-DDL groups, it was found that the mean rank value of DDL group (mean rank = 24.48) was greater than the mean rank value of non-DDL group (mean rank = 16.52). The result clearly indicated that DDL group performed significantly better than non-DDL group in the gap-filling task. This showed that exposure to DDL had a significant impact on DDL students' production of colligations of prepositions in the related task. Meanwhile, the effect size of $r = -0.349$ represents a medium to large effect, thus indicating that the effect of DDL approach to non-DDL approach in increasing the knowledge of the form of colligations of prepositions was a substantive one. The same significant finding of the study was also reported in Koosha and Jafarpour's (2006), Balunda's (2009), and Rapti's (2013) studies.

Table 4.2: Between-group score (gap-filling task)

Group	N	Mean Rank	U value	z value	p value	r value
DDL	20	24.48	120.5	-2.209	*0.027	-0.349
Non-DDL	20	16.52				
Total	40					

Note: Significant at * $p < 0.05$.

In a similar vein, the Mann-Whitney U test in Table 4.3 showed that there was a significant difference in the gain score of the error-identification and correction task in the posttest between DDL and non-DDL groups ($U = 124.5$, $z = -2.070$, $p = 0.038$, $r = -0.327$). By comparing the two mean ranks of DDL and non-DDL groups, it was found that the mean rank value of DDL group (mean rank = 24.28) was greater than the mean rank value of the non-DDL group (mean rank = 16.72). The result clearly indicated that the DDL group performed significantly better than the non-DDL group in the error-identification and correction task. This showed that exposure to DDL had a significant impact on the DDL students' production of colligations of prepositions in the related task. The same results were also observed in Balunda's (2000), Rapti's (2013), and Yoon and Jo's (2014) studies. The effect size of $r = -0.327$ represents a medium to large effect, thus indicating that the effect of DDL approach to non-DDL approach in increasing the knowledge of the form of colligations of prepositions was a substantive one.

Table 4.3: Between-group score (error-identification & correction task)

Group	N	Mean Rank	U value	z value	p value	r value
DDL	20	24.28	124.5	-2.070	*0.038	-0.327
Non-DDL	20	16.72				
Total	40					

Note: Significant at * $p < 0.05$.

The significant results obtained from the two tasks indicated that the students in the DDL group outperformed those in the non-DDL group in the knowledge (receptive) of colligations of prepositions. This success was possibly due to several reasons. The first and foremost reason was due to the massive inputs received by the respondents coming in the form of concordance data which had boosted their memory retention and eased retrieval of the patterns in time of need. The inputs received via intense exposure to the real contexts (legal discourse) as appeared in the concordance data in each unit of the DDL module and the online concordance (BNC for Law) gave them ample opportunities to recall the phrases, resulted in their ability to supply the answer correctly in the gaps.

DeKeyser (1998) argues that the traditional methods of teaching grammar, for example GMT, focus a lot of on gap-filling exercises (drilling activities) which test students' recalling of answers. Even though drilling activities may lead to many being able to complete the gaps correctly, in which the students might know of the right and wrong answers, they might not be able to show fluency in the written or spoken production. This was claimed to be caused by a great focus on 'formS' (Long, 1988) rather than meaning, and grammatical items are taught in limited and unnatural contexts. However, the DDL approach introduced in the present study was a 'form-focused instruction'

(Ellis, 2006) that shifted the respondents' attention not only to the target patterns (form) cued by the KWICs in the concordance lines but also to the naturalness of the contexts (legal setting) themselves, resulted in the DDL students' increased knowledge of colligations of prepositions as reflexed in their improved performance in the gap-filling and error-identification and correction tasks.

The efficiency of DDL over the non-DDL approach in enhancing the learners' collocational knowledge through the gap-filling task can also be described in the second related effect of the power of contexts - an increased focus or enhanced retention of collocation patterns in learners' memory (Cobb, 1997). Learning words through chunking (collocations) is indeed a short-cut approach to language learning (Lewis, 1997, 2000). Learners would not learn the forms of lexical items as discrete ones and devoid of meaning but they now can perceive the connective links between grammar and vocabulary (a marriage between forms and meanings of lexical items). The traditional separation between lexis and grammar cannot be upheld for language cannot simply be described in terms of a slot-and-filler model, where a text is created by the interplay of grammatical rules and lexical choices, enabling a series of slots to be filled from a lexicon (Sinclair, 1991), but linguistic choices are often characterised by 'co-selection'; that is, certain combinations of words selected as groups, patterns, or units of meanings larger than a single word form (Danielsson & Mahlberg, 2006).

Beginning with Firth (1951, 1957a, 1957b) who claims that a specialised language has a system of its own, the Neo-Firthians, for example Downing & Locke (2006), Halliday (1994), and Halliday and Matthiessen (2004) further elaborate that any individual units of language like prepositions perform various functions in a clause, and these functions

differ from those in different specialised texts. The functions of prepositions in legal discourse can be observed via a cascade of prepositional phrases chained by a specific prepositional item (Hunston & Francis, 2000). Since the respondents' awareness of the cascades had been raised, their ability to perceive the psychological effect of collocations (Wray, 2002) had contributed to their enhanced inputs - the knowledge of prepositional patterns in the present study.

Possibly relevant to the issue of enhanced memory retention and ease of retrieval is the communicative nature of DDL approach itself. In the DDL course, the students were given opportunities to interact with their peers in small groups and the teacher-researcher who now acted as the facilitator. They had become more active and participative in the learning process since they physically became 'involved' in the learning process (Brown, 1974; Hafner & Candlin, 2007; Lewis, 2000). The students' memory retention was enhanced due the several cognitive processes involved, for example, active physical involvement with corpus data has led to the students' having 'concrete experience' in detecting, for example, the usages of the patterns. While undergoing the generalising and hypothesis-making processes, the students had actually performed 'observation and reflection' activities. These activities had actually heightened the students' 'abstract conceptualisation' (Kolb & Kolb, 2009) of the patterns, resulted in the students' enhanced memory retention and ease of retrieval when needed.

The efficacy and efficiency of DDL in enhancing the DDL students' knowledge of colligations of prepositions can also be explained in terms of the resourcefulness of materials (the module and the online corpus- BNC for law) supplied to them to check

their collocation errors. The large amount of concordance data the students had referred to provided ample opportunities for them to rectify the patterns they were unsure of, particularly with the patterns they had negatively interfered with their L1 (Malay). The students were directed to focus on the forms and meanings of collocations, and were made aware of the correct and wrong collocations by encouraging them to check for the correct usage of the patterns from the massive concordance lines.

Learners' ability to self-correct their errors using corpora has been reported by many researchers in their studies (see Gaskell & Cobb, 2004; Rapti, 2013; Someya, 2000; Yoon & Hirvela, 2004; Yoon & Jo, 2014). Gaskell and Cobb (2004), for example, reported that the respondents in their study were more capable of self-correcting errors in the essay writing after they had been introduced to the concordances and corpus tool employed in the study. Meanwhile, Yoon (2005), Yoon and Hirvela (2004), Yoon and Jo (2014) assert that one of the potentials of corpora was in helping the study respondents check the grammar or vocabulary usage patterns in their writing. These researchers claimed that the respondents in each of the studies became more independent after using the corpora.

4.1.2.2 Significant Impact on the Knowledge of Meaning (Semantic Function)

This research question was answered by comparing the posttest scores of the semantic-function task. Based on Table 4.4, the Mann-Whitney U test showed that there was a significant difference in the gain score of the semantic-function task between DDL and non-DDL groups ($U = 115.0$, $z = -2.413$, $p = 0.016$, $r = -0.381$). By comparing the two mean ranks of DDL and non-DDL groups, it was found that the mean rank value of DDL group (mean rank = 24.75) was greater than the mean rank value of non-DDL

group (mean rank = 16.25). The result clearly indicated that DDL group performed significantly better than non-DDL group in the semantic-function task. This showed that exposure to DDL had a significant impact on DDL students' production of colligations of prepositions in the related task. The effect size of $r = -0.381$ represents a medium to large effect, thus indicating that the effect of DDL approach to non-DDL approach in increasing the knowledge of the semantic function of colligations of prepositions was a substantive one.

Table 4.4: Between-group score (semantic-function task)

Group	N	Mean Rank	U value	z value	p value	r value
DDL	20	24.75	115.0	-2.413	*0.016	-0.381
Non-DDL	20	16.25				
Total	40					

Note: Significant at * $p < 0.05$.

The significant result confirms Firth's (1957b) 'contextual theory of meaning' which states that words meanings can be derived from the environments of words (1957a) in a huge law of contract contexts via the concordance lines. The 'contextual theory of meaning' which has been extended by the Neo-Firthians, for example Sinclair (1991, 2004), Hoey (2005), Hunston (2008), and Hunston and Francis (2000) perceives the psychological associations between patterns in texts. It also perceives language as a system, a systemic relationship between form (language rules) and meanings or functions (Halliday, 1992a, 1994). The mapping between language form and functions in specialised languages such as legalese can be studied from the technical collocations or patterns prevalent in the texts themselves (Firth, 1951; Halliday et al., 1967, Hoey, 2005). The results of this study also confirm several empirical findings by Boulton

(2007c), Someya (2000), and Yanhui (2008) which reported that their respondents were able to recognise word meanings from contexts even within a short period of time.

As mentioned previously, the efficiency of DDL over non-DDL approach in increasing the students' knowledge of semantic-functions of colligations of prepositions can also be discussed in terms of heightened exposures to the large amount of authentic data in the concordance lines. By gaining multiple exposures to the massive repetitive patterns, the students were more capable of deducing the semantic-functions of colligations of prepositional patterns (Danielsson & Mahlberg, 2006). The students did this by observing and identifying the patterns surrounding the prepositions before they drew conclusions about the semantic-functions of the patterns. They did not find this activity a difficult task since the concordances under observation were indeed of legal genre. As mentioned earlier, "knowledge of genre is a key element in all communication" (Dudley-Evans & St. John, 1998: 115), particularly for learners learning specialised languages such as legal language.

Moreover, the effectiveness of DDL approach can be explained in terms of mixed approaches used (a combination of deductive approach and inductive approaches). Both types of DDL, deductive ('soft') and inductive ('hard') (Gabrielatos, 2005), have helped reduce the cognitive burden of the respondents in deducing the rules and hypothesising the semantic functions of the patterns from the raw data. These students were able to see the meaningful associations between words through the selection of 'procedural or enabling vocabulary', the collocations that form a series of meaningful chains between words forming nominalised and 'compacted' expressions, for instance *come into existence*, *come to the knowledge of*, and *subject to the approval* of. These

patterns were claimed as the most difficult aspect of legal discourse (Jones & McCracken, 2006). And most importantly is that, up to this stage, the students were capable of relating those meanings and functions to legal concepts, ideas, and contents of law, a must-have skill for those who study the law (Beasley, 1993; Bruce, 2002; Weber, 2001).

4.1.2.3 Non-significant Impact on the Production of Colligations of Prepositions

Based on Table 4.5, the Mann-Whitney U test showed that there was no significant difference in the gain score of the single-sentence construction task between DDL and non-DDL groups ($U = 135.5$, $z = -1.770$, $p = 0.280$, $r = -0.279$). By comparing the two mean ranks of DDL and non-DDL groups, it was found that the mean rank value of DDL group (mean rank = 22.48) was greater than the mean rank value of non-DDL group (mean rank = 18.52). The result clearly indicated that DDL group did not perform significantly better than the non-DDL group in the single-sentence construction task. This also showed that exposure to DDL did not have a significant impact on DDL students' production of colligations of prepositions in the related task. This clearly showed that DDL approach is not very effective in increasing the learners' production of colligations of prepositions in single-sentence writing. The effect size of $r = -0.279$ represents a small to medium effect, thus indicating that the effect of DDL approach to non-DDL approach in increasing the production of colligations of prepositions in the single-sentence writing was a fairly substantive effect.

Table 4.5: Between-group score (single-sentence construction task)

Group	N	Mean Rank	U value	z value	p value	r value
DDL	20	22.48	160.5	-1.081	*.280	-0.279
Non-DDL	20	18.52				
Total	40					

Note: Significant at * $p < 0.05$.

The non-significant impact of DDL on the single-sentence production task can be explained in many ways. According to Nation (2001), before a speaker could reach the state of fluency with a word, it is insufficient for him to meet the word frequently in contexts, but he has to have frequent use of the word in multiple contexts, either in speaking or writing. As the students had been exposed to collocation instruction in only seven weeks, they might not have been able to transfer the receptive knowledge to the productive one. Moreover, as found by Gaskell and Cobb (2004) in their study, the skill to self-correct and produce good sentences with correct patterns and grammatical rules do take a longer time frame. The acquisition of production skill may require more than one school term. In other words, "...collocations do not cause a problem of perception (understanding) but that of production" (Gabrys-Biskup, 1992: 35). Thus, though no statistical difference was shown in the result, it does not mean that DDL is not effective in enhancing the students' colligational performance. The students might have been able to acquire the form and meaning of the colligations of prepositions; however, the intake was still insufficient for uptake or production to take place (Lewis, 2000).

Second, adult ESL learners are more prone to a process known as fossilisation. It is a state where no more changes to the patterns will take place, even with extensive

corrections (Ellis, 1994; Selinker, 1972). This fossilised state occurs if some linguistic features have gone uncorrected for a longer period of time and the users have already felt comfortable with the use. And even if they experience changes, a change in production will not be holistic. L1 interference is indeed an influential factor for success in collocation acquisition. If learners' L2 are negatively influenced by their L1, the rate of L2 acquisition may be faltered (Odlin, 1989).

Besides, sentence writing involves a composition of language, content, and style (Harmer, 2001). Even though the patterns are correctly produced, wrong choice of other grammatical items, e.g. tenses, articles, or subject-verb agreement may affect the organisation of a sentence. Hunston (2002) argues that while DDL does work in deepening knowledge of existing language items, i.e. detecting usages of collocations or colligations, it is not very effective in teaching 'the big themes' or tenses. Besides, Gaskell and Cobb (2004); Todd (2001) assert that while lexis and meaning can be acquired fast, sentence composition requires a longer time frame to acquire.

The following section discusses the findings in relation to the DDL and non-DDL within-group performance in colligations of prepositions.

4.2 Within-group findings

Though this study did not aim specifically to investigate the within-group impact on the students' form, meaning, and production of colligations of prepositions, it is very essential to present the within-group findings in the three components for the purpose of getting a complete picture of the impact of the two approaches on both groups by

investigating their increase in performance (if any) in the pre and post intervention courses.

4.2.1 Within-group Findings: DDL

This section discusses the DDL within-group findings in the three components - form, meaning, and production of colligations of prepositions. Data were analysed using the Wilcoxon Signed-Rank test. Similarly, the knowledge of the form was measured by investigating the students' performance in the two tasks - gap-filling and error-identification and correction.

4.2.1.1 Significant Impact on the Knowledge of Form

Based on Table 4.6, the Wilcoxon Signed-Rank test showed that there was a significant difference in the gain score of DDL students' performance in the gap-filling task ($T = 2.50$, $z = -3.536$, $p = 0.000$, $r = -0.559$) before and after exposure to DDL. The result clearly showed that exposure to DDL had a significant impact on DDL students' production of colligations of prepositions in the related task. The effect size of $r = -0.559$ represents a large effect, thus indicating that the effect of DDL approach in increasing the students' knowledge of the form of colligations of prepositions was a substantive effect.

Table 4.6: DDL's within-group score (gap-filling)

	N	T value	z value	p value	r value
Before	20	2.50	-3.536	***.000	-0.559
After	20				
Total	40				

Note: Significant at *** $p < 0.001$

In a similar vein, the Wilcoxon Signed-Rank test showed that there was a significant difference in the gain score of DDL students' performance in the error-identification and correction task ($T = 0.00$, $z = -3.636$, $p = 0.000$, $r = -0.574$) before and after exposure to DDL. The result clearly showed that exposure to DDL had a significant impact on DDL students' production of colligations of prepositions in the related task. The effect size of $r = -0.574$ represents a large effect, thus indicating that the effect of DDL approach in increasing the students' knowledge of the form of colligations of prepositions was a substantive effect.

Table 4.7: DDL's within-group score (error-identification and correction)

	N	T value	Z value	p value	r value
Before	20	0.00	-3.636	*** .000	-0.574
After	20				
Total	40				

Note: Significant at *** $p < 0.001$

The two significant results indicated that the students' knowledge of the form (colligations of prepositional patterns) had improved tremendously in the end of course. These significant findings can be explained in terms of the different means of assistance received by the respondents in the treatment course. As opposed to the spoon-feeding supports given by the teacher-researcher in the non-DDL approach (conventional

classroom) which resulted in the non-DDL students becoming passive recipients, the interactive supports given to the DDL group trained DDL students to become more independent learners. The interactive supports received from the teacher-researcher and their peers had assisted DDL students to develop a skill lacking in the traditional support; that is, an ability to generalise linguistic rules based on detection of linguistic evidence. The generalisation skill and enhanced inputs acquired during the seven-week of the experimental course helped them improve not only in the knowledge of collocation but also the retention of the patterns in their long-term memory (Cobb, 1997).

Another explanation to the significant results is the participants' perceived awareness of a close association between grammar and vocabulary. Once the students had realised that prepositions had their own patterns or prepositional items can only colligate with certain restricted items, they were very careful in selecting and determining the correct colligations of prepositional patterns. Deep understanding of the relationship between grammar and vocabulary had helped them boost the critical thinking and analysing skills, resulted in their increased ability in recognising colligations of prepositional patterns.

4.2.1.2 Significant Impact on the Knowledge of Meaning (Semantic Function)

Meanwhile, to examine the within-group impact on the knowledge of meanings of colligations of prepositions, the semantic function task was measured. In Table 4.8, the Wilcoxon Signed-Rank test showed that there was a significant difference in the gain score of DDL students' performance in the semantic-function task ($T = 8.50$, $z = -$

3.406, $p = 0.001$, $r = -0.538$) before and after exposure to DDL. The result clearly showed that exposure to DDL had a significant impact on DDL students' production of colligations of prepositions in the related task. The effect size of $r = -0.538$ represents a large effect, thus indicating that the effect of DDL approach in increasing the students' knowledge of the semantic function of colligations of prepositions was a substantive effect.

Table 4.8: DDL's within-group score (semantic function)

	N	T value	z value	p value	r value
Before	20	8.50	-3.406	***.001	-0.538
After	20				
Total	40				

Note: Significant at *** $p < 0.001$

The efficiency of DDL in the related task can be explained in terms of enhanced exposure to huge contexts and the students' perceived awareness that the meanings of patterns could only be derived from the environments (co-texts or extended texts) where the patterns situate (Sinclair, 1991; 2004; Hoey, 2005). And many DDL students were able to determine the semantic functions of the patterns in the posttest due to their perceived awareness of the psychological associations between words in texts. Knowledge about collocation had given them opportunities to search the meanings of patterns by looking at the contexts of situation and the pragmatic functions a pattern play in a given discourse, and in this case, the legal discourse (Trosborg, 1991; Bhatia, 2004).

4.2.1.3 Significant Impact on the Production of Colligations of Prepositions

Finally, to measure the DDL within-group impact on production of colligations of prepositions, the students' performance in the single-sentence production was measured. Based on Table 4.9, the Wilcoxon Signed-Rank test indicated that there was a significant difference in the gain score of DDL students' performance in the single-sentence construction task ($T = 8.50$, $z = -3.406$, $p = 0.001$, $r = -0.589$) before and after exposure to DDL. The result clearly showed that exposure to DDL had a significant impact on DDL students' production of colligations of prepositions in the related task. The effect size of $r = -0.589$ represents a large effect, thus indicating that the effect of DDL approach in increasing the students' production of colligations of prepositions was a substantive effect.

Table 4.9: DDL's within-group score (single-sentence production)

	N	T value	z value	p value	r value
Before	20	0 .00	-3.731	***.0001	-0.589
After	20				
Total	40				

Note: Significant at *** $p < 0.001$

The significant result can be explained in terms of the students' improved performance by the end of course owing to the power of contexts. This finding supports several empirical studies by Boulton (2006, 2007c, 2008a, 2009b, 2009c, 2010a), Hadley (1997, 2002), and Koosha and Jafarpour (2006). Intense exposure to the authentic data in the concordance lines had improved the respondents' memory retention and awareness. This was coupled with the scaffolded DDL approach introduced as opposed to the traditional paper-based materials and the PPP technique in the traditional group.

Moreover, the students' improved accuracy in the single-sentence production was mainly caused by their realisation of psychological relationships between patterns situated in the left and right of the target patterns. This method of learning helped in raising their awareness of the pattern relationships in the seven-week course, cued mainly by the prompts provided in each unit of DDL module. Lewis (2000) asserts that one aspect of collocational competence is an ability to produce accurate chunks of language either in spoken or written production.

4.2.2 Within-group Findings: Non-DDL

This section discusses the non-DDL students' knowledge and production of the form, meaning, and production of colligations of prepositions. Similarly, the students' knowledge of the form was measured by investigating their performance in the gap-filling and error-identification and correction tasks, and the Wilcoxon Signed-Rank test was used to analyse data.

4.2.2.1 Non-significant Improvement in the Gap-Filling Task

Based on Table 4.10, the Wilcoxon Signed-Rank test showed that there was no significant difference in the gain score of non-DDL students' performance in the gap-filling task ($T = 31.5$, $z = -1.660$, $p = 0.097$, $r = -0.262$) before and after exposure to non-DDL approach. The result clearly showed that the teaching of prepositions using non-DDL approach did not have a significant impact on non-DDL students' production of colligations of prepositions in the related task. The effect size of $r = -0.262$ represents a small to medium effect, thus indicating that the effect of non-DDL

approach in increasing the students' knowledge of the form of colligations of prepositions was a fairly substantive effect.

Table 4.10: Non-DDL's within-group score (gap-filling)

	N	T value	z value	p value	r value
Before	20	31.5	-1.660	*0.097	-0.262
After	20				
Total	40				

Note: Significant at * $p < 0.05$

However, the Wilcoxon Signed-Rank test in Table 4.11 showed that there was a significant difference in the gain score of non-DDL students' performance in the error-identification and correction task ($T = 19.5$, $z = -3.057$, $p = 0.002$, $r = -0.483$) before and after exposure to the non-DDL approach. The result clearly showed that the teaching of prepositions using non-DDL approach had a significant impact on non-DDL students' production of colligations of prepositions in the related task. The effect size of $r = -0.483$ represents a medium to large effect, thus indicating that the effect of non-DDL approach in increasing the students' knowledge of the form of colligations of prepositions was a substantive effect.

Table 4.11: Non-DDL's within-group score (error-identification and correction)

	N	T value	Z value	P value	r value
Before	20	19.5	-3.057	**0.002	-0.483
After	20				
Total	40				

Note: Significant at ** $p < 0.01$

Based on the mixed results obtained, a no significant difference in the gap-filling task but a significant difference in the error-identification and correction task, it was evident therefore that the knowledge of the respondents' prepositional forms did not improve significantly after being exposed to the traditional teaching of prepositions in the seven-week course. The same insignificant finding was also reported in several studies (see Balunda, 2009; Koosha & Jafarpour, 2006; Rapti, 2013). The results obtained showed evidence that the conventional method of teaching grammar or vocabulary has been less effective than DDL approach. Smith (2011) and Yanhui (2008) discussed the ineffectiveness of the traditional approach, for example GTM, traditional grammar books, and dictionaries in accelerating their subjects' acquisition of grammar, vocabulary, and discourse.

Prepositions are one of the toughest grammatical items for the learners of English to acquire, even with the advanced ones because "prepositions do not behave the same way for each language (Boquist, 2009: 9). Though prepositions are traditionally assigned as function words or a closed system, they are a controversial part of speech, partly due to their 'hybrid' or 'semi-lexical' functions - they have both lexical and grammatical functions (Littlefield, 2011). Prepositions also have the tendency to be free and bound. When this occurs, the meaning of the patterns rely on the prepositions collocated with the content words preceding them. Since prepositions are not consistent from one language to another, and they can be either free or bound, Celce-Murcia and Larsen-Freeman (1999) contend that an effective method of teaching prepositions is to expose learners to a large number of contexts - the concordance data.

Due to the fact that the non-DDL students in this study had been exposed to quite a limited number of prepositional instances in each unit of non-DDL module, and they were not taught skills to deduce rules of the target prepositions, this lack resulted in a deficit of memory retention and slow retrieval of prepositions when needed, for example in answering the questions in the posttest.

In addition to the lack of exposure to larger contexts, the teaching focus itself can be claimed as another factor causing this insignificant finding. Non-DDL learners in the present study were taught prepositions as discrete items rather than by their colligations despite suggestions given by Bahns and Eldaw (1993) and Brown (1974) that collocation teaching should not be neglected in EFL/ESL classrooms. Even though the made up samples given consisted of law of contract sentences, the students still suffered from a deficit in the actual usages of the target prepositions. Knowing the fact that prepositional items and patterns in legal discourse are interrelated and they constitute the construction of knowledge in the law of contract discourse, being deprived of the knowledge of colligations of prepositions resulted in their lack of performance in the posttest. In other words, fewer samples received faltered the students' intake of sufficient comprehensible inputs essential for the growth of linguistic knowledge (Cobb, 1997; das Neves Seesink, 2007).

4.2.2.2 Significant Impact on the Knowledge of Meaning

Meanwhile, the non-DDL's within-group knowledge of the meanings of prepositions was measured by investigating their performance in the semantic function task. In Table 4.12, the Wilcoxon Signed-Rank showed that there was a significant difference in the

gain score of non-DDL students' performance in the semantic-function task ($T = 23.5$, $z = -2.616$, $p = 0.009$, $r = -0.414$) before and after exposure to non-DDL approach. The result clearly showed that the teaching of prepositions using non-DDL approach had a significant impact on non-DDL students' production of prepositions in the related task. The effect size of $r = -0.414$ represents a medium to large effect, thus indicating that the effect of non-DDL approach in increasing the students' knowledge of the semantic function of colligations of prepositions was a substantive effect.

Table 4.12: Non-DDL's within-group score (semantic function)

	N	T value	z value	p value	r value
Before	20	23.5	-2.616	**0.009	-0.414
After	20				
Total	40				

Note: Significant at $**p < 0.01$

As expected, the efficiency of non-DDL approach in increasing the students' knowledge of the meanings of prepositions can be explained in terms of explicit teaching of the meanings of prepositions in the course and the students' improved awareness of the different senses between general English and legal English. Throughout the course, non-DDL students were equipped with non-DDL module that also discussed in length the meanings of prepositions. The discussion began as early as in Lesson 1, in which general introduction about prepositions and their meanings and explanations about the content and functional meanings of prepositions were provided. This sufficient assistance explained the significant within-group result achieved in this task. Ahmad (2009), Craig (2008), and Kennedy (2003) contend that if English courses pay enough attention to prepositional forms (though admitted as one of the hardest

items to be acquired even with advanced learners), learners would be capable of learning the meanings of prepositions as well.

Another explanation leading to the significant statistical result was the students' improved awareness of the different senses between general English and legal English. The lessons in non-DDL approach explained and provided examples how the same word in general English meant differently in legal English. For example, while the term *consideration* in contract law may mean *a promise to perform a desired act*, it may mean *careful thought or deliberation* in general English. This very fact was not clearly spelled out to the law students in the two English for Communication courses they had attended before. The sufficient explanations given in the non-DDL course boosted the students' recognition of the semantic-functions of the patterns. Craig (2008) claims that one of the major causes of learner erroneous production of prepositions in academic disciplines is determining accurate meanings of prepositions. And the erroneous features could be reduced should a proper teaching of prepositions is supplanted to students (Mukundan & Norwati Roslim, 2009).

4.2.2.3 Significant Impact on the Production of Colligations of Prepositions

Finally, the non-DDL's within-group production of colligations of prepositions was measured by investigating their production in the single-sentence writing task. In Table 4.13, the Wilcoxon Signed-Rank test indicated a significant difference in the gain score of non-DDL's within-group performance in the single-sentence construction task ($T = 8.50$, $z = -3.406$, $p = 0.001$, $r = -0.538$). The result clearly showed that the teaching of prepositions using non-DDL approach had a significant impact on non-DDL students' production of prepositions in the related task. The effect size of $r = -0.538$ represents a

large effect, thus indicating that the effect of non-DDL approach in increasing the students' production of colligations of prepositions was a substantive effect.

Table 4.13: Non-DDL's within-group score (single-sentence production)

	N	T value	z value	P value	r value
Before	20	14.5	-3.099	**0.002	-0.538
After	20				
Total	40				

Note: Significant at ** $p < 0.01$

The significant finding was related mainly to the exposure to and enhanced noticing of legal prepositions in the law of contract texts. As mentioned previously, all respondents including non-DDL students were interviewed to get their responses about prepositions in the pre-interview study. The result indicated that almost all of them responded that they had zero knowledge about prepositions. Though this group of students had experienced writing legal assignments and essays in the three semesters of their study, they lacked knowledge of what constitute the right prepositions in the writing. This was caused by having no explicit teaching of prepositions. This seven-week course can be claimed as the first course catering to their needs, and this explains their improved production of prepositions in this task. Ellis (2001) and Nation (2001) assert that explicit teaching of vocabulary and linguistic structures could enhance learners' potential to retain linguistic forms better in students' memory and help trigger the intake into uptake better and faster.

It is apt at this juncture to capture the summary findings of the two research questions and the within-group findings obtained from the inferential statistical analyses. This is shown in Table 4.14.

Table 4.14: Summary findings of RQ1, RQ2, and within-groups

Components	Form		Meaning	Production	Overall Performance
	gap-filling	error-identification & correction	semantic function	single-sentence writing	overall score
RQ 1 between-group results					significant impact on overall performance
RQ 2 between-group results	significant impact	significant impact	significant impact	no significant impact	
Within-group results (DDL)	significant impact	significant impact	significant impact	significant impact	
Within-group results (non-DDL)	no significant impact	significant impact	significant impact	significant impact	

4.3 Research Finding 3

The third research question aimed at exploring in-depth factors that influenced the subjects' knowledge of the form, meaning, and production of colligations of prepositions. This aim is expressed in the following research question: What are the factors which influence the students' knowledge of the form, meaning, and production of colligations of prepositions?

In order to answer the research question and to gain in-depth insights into the respondents' perceptions, attitudes, and difficulties of using DDL, several data were triangulated. They were interviews, survey questionnaires, and qualitative analysis of

the pretest/posttest scores. The following section discusses the findings obtained from the interview responses.

4.3.1 Findings from the Interview (10 DDL students)

10 DDL students (seven high achievers and three low achievers) were interviewed and their responses were analysed manually according to themes. One fact that needs to be highlighted here prior to presenting the findings is that the students who scored 43 to 56 out of 60 marks were classified as high scorers and those who scored 35 to 42 marks out of 60 were low scorers. The findings are presented as follows:

4.3.1.1 The Effectiveness of DDL

Many students seemed to have a positive attitude towards DDL. All respondents unanimously agreed that DDL was very effective in improving their knowledge of prepositions and their colligations. A student responded:

“Before this I do not know about prepositions...I do know a little bit, yes...but when I attend this course, I know a lot more”.

(Respondent 1, DU3⁶⁶)

Another student added that the course did help her in learning many rules about prepositions. She commented:

⁶⁶ DU stands for Discourse Unit, a unit of discourse analysed in the interview.

“Yeah, a lot because before I learned [prepositions], I was zero. And I understand [about] the prepositions after I learned [them]. At least I have a little knowledge about the right preposition [used] in the contexts”.

(Respondent 4, DU2)

She further added:

“The DDL approach is very effective. I can say that because most of the students were not aware of the prepositions before and then after the course, they knew a lot about them. I am not sure about the others, but for me, it does help me a lot”.

(Respondent 4, DU14)

One of the low scorers even admitted:

“I think this programme has increased my knowledge about prepositions. Before this I did not get any ideas about prepositions. I think it is just a normal thing such as root words, past tense, etc. This programme has introduced me to a new subject and it increases my knowledge about prepositions”.

(Respondent 7, DU2)

One student also added that DDL had trained them to become more independent learners. He said:

“The DDL approach was very effective because now we know how to use the words based on the data given. I somehow like the method because it makes me become independent”.

(Respondent 3, DU12)

The effectiveness of DDL as informed by the respondents has supported the earlier findings of the study discussed in Section 3.2.1. The positive responses given were also reported in Koosha and Jafarpour’s (2006), Yanhui’s (2008), Yoon’s (2005), and Yoon and Jo’s (2013) studies. Yoon and Jo’s (2013) subjects’ overall performance after exposure to DDL was reported to be significantly better than was their earlier performance. They reported that the efficiency of DDL was immensely related to the huge amount of authentic data (the concordance lines) that their subjects had been exposed to.

4.3.1.2 Insufficient Time to Absorb All Rules

Though exposure to DDL helped improve the respondents’ knowledge of prepositions and prepositional patterns, they regretted for not having sufficient time to absorb all the rules. One of them commented:

“Generally, I want to say that for the six weeks I learned this technique, I can learn something new...but six weeks are not enough to increase my knowledge”.

(Respondent 5, DU4)

One of them quoted:

“I think some parts [tasks] are effective, that is for determining the meanings using the context. [It] is effective, but it is not effective [to study] within six weeks”.

(Respondent 5, DU13)

One low scorer lamented:

“For me, the course increases my knowledge but sometimes we need more time to study, because the time given is short to absorb it. We don't have enough time to absorb”

(Respondent 6, DU4)

Another low scorer added:

“We have a short time. When we write [in the posttest], we do not think about grammar and prepositions. The course did help me, but when it comes to the use of it, I cannot make use of it”.

(Respondent 9, DU3)

Lack of the respondents' absorption of some of the rules taught within a period of seven weeks was in line with the finding obtained in Balunda' (2009) study. She reported about her subjects' perceived difficulty in carrying out some DDL activities, for example identifying the parts of speech of the target word, locating collocations of the

target word, identifying the meaning of the word (which was the hardest activity), and writing sentences using the word. The difficulties were related to her subjects' failure to perform DDL activities owing to lack of absorption of collocation rules taught within a 45-minute experimental session. She concluded that the acquisition of collocation may take a longer time to absorb.

4.3.1.3 Increased Noticing Skill Helped in Minimising the Students' Errors

Almost all respondents admitted that exposure to DDL helped reduce collocation errors despite their lack of confidence in the answers. One top scorer commented:

“Yeah, it (DDL) do [es] help me to reduce the errors. I know now how to look for the right patterns after I learned the prepositions and their partners but not a lot, only some”.

(Respondent 4, DU4)

One low scorer responded:

“Yes, I noticed my errors in the prepositions have reduced, but sometimes I do not know what [how] to put the correct answer”.

(Respondent 6, DU3)

The improved noticing skill obtained can be related to the inductive skill adopted by the students in the course. According to Johns (1991a: 2), “Concordances stimulate enquiry and speculation on the part of the learner” and help the learner “to develop the ability to see the patterning in the target language and to form generalisations to account for that

patterning”. DDL is a process rather than a product approach (Hadley, 2002). In deciding on the correct answers and detecting errors, they need to increase their thinking skill, develop reasoning, and formulate hypothesis. This higher order thinking skill adopted by the learners has, undeniably, emulated learners’ success in detecting the errors in the test. Yoon and Jo (2014) also related her subjects’ success to the cognitive learning strategy (as language detectors) employed by the learners in working with concordance data in the DDL course.

Noticing is a very essential skill for it is “the necessary and sufficient condition for converting input to intake” (Schmidt, 1990: 129). Noticing is closely related to other learning attributes including focus on form, consciousness, language awareness, sensitisation, and many others (Boulton, 2012c). While traditional deductive approaches may allow the teacher to do the noticing for students, inductive approaches like DDL approach are entirely dependent upon noticing. Noticing is even more important than understanding. Without noticing, though we may understand or know, we may not be able to use language effectively (Gass, 1997; Schmidt, 2001).

The fact that ESL learners have the ability to self-correct their own errors due to enhanced noticing skill was also reported in Balunda’s (2009) and Boulton’s (2012c) studies. They claimed that their subjects’ noticing skill had improved due to enhanced cognitive and constructive skills. Balunda (2009) also reported in her study that due to her learners’ improved noticing skills, her subjects outperformed their counterparts who were taught with the traditional approach in sensing word association, locating the words’ parts of speech, noticing the meanings of words, and constructing sentences.

Furthermore, Boulton's (2012c) findings indicated a no significant difference in the noticing skill between the experimental and control group, in which he related that to a short period of treatment given - only 15 minutes per class session or three hours within a period of 12 weeks. A modest improvement gained by the experimental group treated with corpus-based activities online using the British National Corpus (BNC) had been seen. He explained this improvement in terms of the experimental students' improved language sensitivity to the previously unseen text which was tested after the 12th week. He claimed that the students' noticing skill was observed even though the course was conducted in only a short period of time.

Noticing skill is a major enterprise in inductive approaches. One of the main advantages of this approach lies in its potential to raise learners' language sensitivity and capacity to cope with authentic language (Chan & Liou 2005; Yoon 2008). As DDL is a process approach rather than a product approach, it has a great potential to develop more of learner cognitive processes, resulting in the learner ability to store the patterns in their long-term memory. The low DDL scorers had shown improvements in the gain scores of the posttest (if compared to their pretest scores). However, due to their lesser ability in noticing the patterns, it had contributed to their short-term memory retention of the patterns.

4.3.1.4. Increased Awareness of the Different Meanings and Usages of Prepositional Patterns

Generally, all students including those who did not score much in the posttest admitted that the course did assist them in differentiating the meanings and usages of prepositions in Malay and English. One student mentioned that the course did assist

them in increasing her awareness of the different meanings and usages of prepositional patterns in the two languages. She quoted:

“It really helps me because we cannot translate directly Malay words to English words. So the prepositions [that we had learned] helped us not to directly translate English prepositions to Malay. For example, the pattern *discuss about* is wrong. In English, it does not exist. Only *discuss*”.

(Respondent 7, DU6)

Another student said that he was fortunate enough to be in the course for it had allowed him to know the right forms and usages of prepositions in legal contexts. Another student was also grateful for designing the course since it helped him realise that a direct translation of Malay into English was not a good strategy in learning legal English. One top scorer commented:

“Yes, basically we tend to translate from Malay to English. After learning this programme, there is a difference between Malay and English. Then we know we cannot translate straight”.

(Respondent 10, DU7)

The students’ recognition of the existence of different sentence patterning in the two languages helped explain this interesting finding. Learning patterns is not like learning discrete items. Patterns are interrelated in texts, and the meaning of a pattern depends on its contexts or environments (Hoey, 2005). When the students had recognised the psychological relationship between patterns in legal texts, their awareness of

differences between English and Malay patterns had also increased. This recognition restrained them from repeating the same mistakes such as wrongly added preposition *about* to the word *discuss*.

4.3.1.5 Increased Awareness of Collocations

The respondents' increased awareness of colligations of prepositions can be claimed as one of the major factors contributing to their improved performance in the posttest. One student mentioned that the concept of collocation was very foreign to her before attending the DDL course. She resorted to direct translation strategy (Malay into English) in deciding the right partner of prepositions. However, after being exposed to DDL and collocations, she had become more careful in choosing colligations of prepositions to avoid from committing mistakes. Another student also claimed that his awareness of collocation had increased though he still admitted that determining correct collocations was not an easy task. Some top scorers even realised that collocations are fixed patterns and their partners cannot be simply picked at random. Some of them commented:

“Yeah, yeah...of course. The course did really help me. After I learned [collocation] then I know we cannot simply put words at random. They [collocations] have their fixed partners”.

(Respondent 4, DU9)

“Now I know that vocabulary and grammar come in patterns. Vocabulary cannot stand alone. So, we need to find the partner of [the] words. We need to find what words can be matched with what words. This course also increases my knowledge about what words can come before the pattern *aware of*, for example, *am aware of*”.

(Respondent 7, DU8)

“I do now realise what collocations are. Now I can see how vocabulary and grammar combines to produce ‘strong’ collocations”.

(Respondent 8, DU8)

“I used to think that vocabulary and grammar are two different things, but now I realised that they can come together. Next time when I come across a grammar or a vocabulary word, I will always look at the words around the word I am looking for”.

(Respondent 10, DU9)

However, the respondents did not deny the fact that looking for the right collocates was difficult. One student said:

“I can say that I’m having a difficulty with collocations. So, I think finding the partners is quite difficult. Sometimes I just simply put, this is your partner”.

(Respondent 4, DU19)

She further added:

“I can say that [the difficulty] was because they [the patterns] were not the things that we learned every day. We do not have a special class for [teaching] this. The lecturers themselves [law lecturers] do not apply the right prepositions. Maybe they know, but you know, when they teach, they tend to make the students understand [the law content], so they disregard the grammatical aspects”.

(Respondent 4, DU25)

The students' increased awareness of collocation can be discussed terms of the students' latent awareness of the non-separation of vocabulary and grammar (Cowie, 1998; Lewis, 1993, 1997, 2000) or pattern (Hunston & Francis, 2000). As stated previously, legal contract texts are prevalent with patterns. Sinclair (1991: 110) also claims that the lexis of a language constitutes “a large number of semi- preconstructed phrases that constitute single choices, even though they might appear to be analysable into segments”. After gaining inputs from several lessons, the students had developed some sort of understanding that an individual word would not give meaning unless it is associated with another word. The word *look*, for example, would give different meaning when associated with preposition *to*. A combination of the two signals a marriage between lexis and grammar (a non-separate entity). It is a phrasal verb (the middle-ground between ‘syntax and lexis’ (Gass & Selinker, 2001), and in order to provide meanings to phrasal verbs, one has to study their semantics and functions in a given text (Halliday, 1994; Zarifi & Mukundan, 2012).

4.3.1.6 Difficulty in Coping with the Hardest Task (Determining the Semantic Function)

A factor which might have reduced the students' scores in posttest is determining the semantic functions (meanings) of the patterns. This was highlighted in some of the responses. One student quoted:

“Yeah, it did help me because I seldom come across this kind of practice before. In this lesson we implement this thing. Yeah, it does improve a bit”.

(Respondent 4, DU10)

Another student added:

“Determining the semantic function is quite hard to me. I only got 4/10, a low mark for this section. I do not gain more [much] in this section. But I think given time and the concordance lines I learn I think I would know how to”.

(Respondent 7, DU20)

He further commented:

“I think guessing meaning. I got a lot of problems. I did not gain more in the semantic function task. I only got four out of ten. To guess a meaning takes a lot of practice”.

(Respondent 7, DU21)

Another student responded:

“I have difficulty in determining the meanings because meanings are very subjective. They are not rigid. They depend on the contexts”.

(Respondent 8, DU21)

One student quoted:

“Semantic-function was the hardest part because it is quite subjective. To determine the meaning I need to refer to the lines. They are not fixed. I still need the practice”.

(Respondent 10, DU20)

One low scorer had found the task challenging since she could not manage to derive the meanings well from the concordances for her lack of knowledge in making accurate guesses. She commented:

“This course really helps me in guessing the meanings of prepositions. But I could say that I am not good at making guesses. Because when asked about the answers [in the posttest], my friends can do it but not me”.

(Respondent 6, DU10)

Learners’ differing abilities and lack of schemata are the two factors which can explain the students’ difficulty in determining the semantic function task. The fact that students differ in their learning rate is a well-known fact in mixed-ability classrooms (Richards,

1998). Guessing meanings from contexts is not a skill which can be acquired in a short period of time (Balunda, 2009). In cases where learners do not have sufficient schemata or background knowledge of the language, the capacity to make accurate guesses using corpora will not turn out to be successful all the time, even by adult students (Bernardini, 2000).

Meanwhile, the fact that the students still had persistent difficulty with the patterns such as *binding on*, *binding upon*, *bound by*, *bound to*, *approval from*, and *approval on* can be explained in terms of the semantic closeness of prepositional items. While restricted collocations may affect learners' difficulty in the acquisition of collocational or colligational patterns (Nesselhauf, 2005), the semantic closeness (near-synonyms) of lexical items may even confuse ESL learners further in determining their meanings (Nation, 2001). In the case of the present study, prepositions *on* and *upon* are near synonyms. The meanings of the two items are close. However, they do have a slightly different usage. While preposition *on* in the pattern *binding on* can receive both inanimate and animate objects, preposition *upon* in the pattern *binding upon* may only receive animate object. The students might have not noticed this aspect in the concordance lines or they might not be able to recall this very fact while answering the test.

Meanwhile, the fact that determining the semantic-function task was still considered the most difficult task by the high-achievers can be explained in terms of their lack of familiarity with the new type of activity introduced in learning prepositions. In fact, determining the semantic-function of prepositions is not an activity that Malaysian primary and secondary school teachers always teach their students (Norwati Roslim &

Mukundan, 2011). They usually employ drilling activities and rote exercises, a deductive approach in which “students are presented with grammar rules and then given the opportunities to practise using them” (Richards, 2006: 6), as opposed to an inductive approach in which students are asked to work out the rules and meanings themselves after they are presented with sentences containing a grammar rule. On top of it, the use of corpus linguistics as a tool in assisting teachers and students in learning prepositions “within its [their] collocational grammatical framework and not only prepositions per say” (Norwati Roslim & Mukundan, 2011: 129) in Malaysian school context has also been rare.

Furthermore, empirical studies investigating the effectiveness of DDL in determining the semantic function task especially in legal context have also been rare. Even though there have been a few studies conducted, very few language items were included and tested. The respondents in Balunda’s (2009) study for example, were required to work out with only two words, *decline* and *subsequent*, as opposed to the 19 patterns in this study. However, similar to the findings reported in her study, the task of guessing meanings from contexts was considered as a difficult one and time-consuming.

Meanwhile, due to the difficulty in dealing with the semantic function task, the low achievers decided to resort to their old knowledge about the meanings of the patterns. The students’ reluctance to change the old knowledge can be explained in terms of interlanguage fossilisation, a state in which a learner’s route of achieving native-like competence has come to an end (Ellis, 1994). Interlanguage is a learner language which is neither the learners’ first language (L1) nor their target language (L2) (Nemser, 1971; Richards, 1971a, 1971b). Ellis (1985) claims that fossilisation may occur due to several

internal and external factors such as motivation and age. In the present study, fossilisation might occur due to the learners' determination that their existing knowledge of the patterns was sufficient and the new knowledge, though not fully acquired, would not affect their survival in the law programme.

What can be summarised here is that even though DDL has 'perpetual enigma' (Boulton, 2011a), DDL also has its 'perpetual challenge' (Johns, 2002). The use of corpus in locating word meanings is both a daunting task and time-consuming. It challenges a learner's cognitive skills and linguistic competence. Hence, though technically the skill of guessing meanings from the concordance lines can be acquired by the subjects as reported in some DDL studies, a longer time span is required before the skill can be fully acquired (Balunda, 2009; Gaskell & Cobb, 2004; Yoon, 2005, 2008).

4.3.1.7 Motivating and Inspiring Task (Determining the Semantic Function)

Though some respondents considered this task difficult, some students reported that the activity of guessing meanings from contexts (determining the semantic function) was entertaining one and they enjoyed this activity very much. A student quoted:

“Yes. This course helps me very much. I like this thing [guessing meanings]. This is because in this course we need to guess the semantic-functions of the patterns. I like this part very much”.

(Respondent 2, DU10)

Meanwhile, one respondent mentioned that determining the semantic-function task was not only the easiest task but also entertaining to her. She said:

“Determining the semantic function is easy for me. I do not want to say easy but it is fun. Maybe it is challenging to others but to me it is fun”.

(Respondent 2, DU23)

One student also had his own strategy in handling this task. He added:

“Yes. I can determine [the meaning] now. When I want to write a sentence, I know now what the patterns mean in my sentence. I guessed the meanings of the patterns first. And when I was certain of the meanings, then I write sentences”.

(Respondent 8, DU11)

One of the tasks in the present study that has given more opportunities for the learners to act as language ‘detectives’ (Johns, 1991a) is determining the semantic-function task. This task requires learners to generalise the meanings of the prepositional patterns, making use of their previous knowledge and the new knowledge derived from the concordance lines. A majority of the respondents in the present study found this task interesting, and this was probably due to the fact that this kind of task had never been introduced during their formal study of English before either in the primary, secondary, or tertiary institutions.

The students' enhanced motivation was also reported from their responses in the task. They mentioned about their increased motivation and the intention to make use of DDL in their future work. Learner motivation as an essential variable affecting learning has been discussed by many prominent figures in SLA studies, for instance Dornyei (1996, 2009), Ellis (1994), and Ellis and Barkhuizen (2005). They claim that motivation will elevate learners' perseverance towards life-long learning and most importantly, affect their actual achievement. This is particularly true since DDL is an inductive learning approach requiring learners to perform in-depth discovery and exploration of data for knowledge attainment, a motivating task found by the students in the present study. This is in contrast to the traditional approach where the students become the knowledge recipient, a product approach whereby learners have fewer opportunities to discover the knowledge on their own (Johns, 1991a, 1991b).

4.3.1.8 The Benefits of Background Knowledge (Previous Legal Education)

It was found from the students' responses that background knowledge had eased their difficulty in producing single-sentences. All students (high and low scorers) confessed that the single-sentence production was a difficult task. However, the difficulty dissipated after they were introduced to the patterns. One low scorer even admitted that the task became much easier after she noticed a similarity between the task introduced in this course and the task carried out in the law classes, both at the diploma and undergraduate levels. Some of their responses were reported as below:

“The biggest difficulty is to make correct sentences because we just make the sentence that we know [of]. Now after studying the course, I know the correct way. I find it still difficult, but quite *OKlah*”.

(Respondent 3, DU20)

Another student commented:

“[What is] difficult...difficult...for me [is] ...writing sentences. I lack of study [I did not do a lot of study], so when I write, [is] this right or wrong? So, the most difficult part is writing”.

(Respondent 6, DU20)

One low scorer said:

“Section 4[writing task]. Sometimes when we produce sentences, we still use the same sentence”.

(Respondent 9, DU22)

4.3.1.9 Unchallenging Tasks: Gap-filling and Error-identification and Correction

All students realised that some tasks were easier than others. Some of them considered gap-filling as the easiest task while others favoured the error-identification and correction task. One student expressed her opinion:

“The error-identification and correction task was the easiest task to me. This is because I always practise them. Filling-in the blanks, however, was quite difficult. I always got confused. For examples, the patterns like *approval of, discussion about*”.

(Respondent 10, DU22)

Law students, as in the case of the respondents in the present study, are upper intermediate to advanced learners’ of English who can adopt DDL learning faster. Whenever they are introduced to a new learning approach, the previous English schemata helped them absorb and recall the new knowledge faster. And this explains their ability in completing the gaps and detecting errors.

Gap-filling is a favourite researchers’ tool to test the respondents’ collocation knowledge (see Balunda, 2009; Koosha & Jafarpour, 2006; Read, 2000; Zhang, 1993). Some researchers, for example Hargreaves (2000), Read (2000), and Zhang (1993) even prepared the test-takers with the first letters of the collocational words as clues for them to complete the gap. Though no clues were given to the initial collocation words in the test employed in the present study, the respondents still regarded gap-filling as the easiest task.

4.3.1.10 Persistent Difficulty with Some patterns and Sentence Structures

Some respondents mentioned that some patterns are more difficult to acquire than others, for example *binding on, bound by, bound to, approval from, approval on, provide for, provide that, aware of, and contravene*. This was caused mainly by their

lack of knowledge in differentiating the meanings of the three patterns, for example *bind*, *binding*, and *bound* + prepositions. Because of that difficulty also, one respondent was quite reluctant to change her old knowledge, a similar response reported in Yoon & Jo's (2014) study. One student commented:

“I think Lesson 1 is confusing to me. During the course, I have used the patterns for so many times but still I do not understand. I do not want to change the way I have used the patterns with the new information I got in this course. It's hard to make a change”.

(Respondent 5, DU19)

Besides, though all the respondents agreed that they could transfer the knowledge of the patterns into sentences, they still had another difficulty - their persistent problem with other sentence structures such as tenses, subject verb agreement, and articles. This difficulty reduced their ability in producing well-formed sentences.

This phenomenon can be explained in terms of learners' capacity to transfer knowledge into production, a process which is not automatic. According to Lewis (2000) and Nation (2001), turning the intake into uptake does incur a longer period of time. Several cognitive processes such as noticing, retrieval, and generation (Nation, 2001) may need to take place prior to successful linguistic production. The seven-week experimental course might not have been adequate for this group of learners to acquire the patterns. The acquisition of advanced language skills like speaking and writing may take more than one school term (Gaskell & Cobb, 2004).

Besides, Lewis (2000) also states that in order to achieve collocational competence, a learner must reach the state of fluency and accuracy. The participants in this present study might have gained competence in the patterns; that is, they may have sufficient knowledge of colligations of prepositions. However, there is no guarantee that the learners knew about all the grammatical forms such as tenses or articles. There are still many aspects of writing that a learner should observe such as ‘the big themes’ (Boulton, 2007b) or tenses in order to produce accurate and well-crafted sentences. In other words, both fluency and accuracy do contribute largely to well-crafted sentences. This explains for the participants’ feeling upset with their incapacity to produce accurate sentences despite their improved knowledge of colligations of prepositions.

The fact that different learners may take longer time than others to acquire collocation can be explained in terms of learner differences. Learners have different cognitive styles. The way they “perceive, conceptualise, organise, and recall information” (Ellis, 1985: 114) do differ. Some learners are field independents. They fare better than others in classroom learning, particularly due to their greater ability to analyse the formal rules of the language. In contrary, dependent learners rely heavily on the outside inputs (basically the native speakers and natural setting) to succeed. They are not fast learners who can process information quickly especially when it comes to the test which requires ‘imitation’ (Ellis, 1985) or recalling facts.

Another interesting finding revealed by these responses was the fact that the patterns in which many of the respondents had difficulty with were not phrasal verbs, for example *come to* (means *reach*) + *a conclusion*, *look into* (means *investigate*) + *the case*, and *enter into* (to be in) + *a contract* but rather the combinations of semi-technical and

technical vocabulary plus prepositions, for example *binding on*, *approval of*, and *aware of*. This situation can be explained, firstly, in terms of the respondents' frequent meetings with phrasal verbs in legal materials and the previous law of contract lectures. Secondly, those phrasal verbs (a combination of the main verbs + prepositions) do bear specific semantic contents (Rauh, 1993, as cited in Littlefield, 2011), and they do not change meanings despite changes in tenses such as from the present participle (looking into) to past participle (looked into). The moment students know the meanings, they can easily remember them.

Semi-technical and technical words, however, are free words. They are lexical items bearing semantic contents. Learners may have difficulty giving the meanings when words are bound with prepositions due to the fact that a change in the use of prepositions will also change the meanings of the patterns. For example, the meaning of *approval of* is different from that of *approval from*. Difficulty in differentiating between the two meanings impacted the respondents' performance in the posttest as conveyed in their responses.

4.3.1.11 Preference for Traditional Teaching Materials to Concordance Lines

Based on the students' responses, the findings indicated that the respondents in this present study preferred using traditional teaching materials to the concordance data. They would rather use dictionaries to the concordance online due to the Internet limited coverage and the trust she put in the dictionary. One respondent commented:

“For me, right now I would like to refer to the dictionary since I got one good dictionary. Yes, I like to refer to the Internet if I want to check the correctness of sentences. But, I have a difficulty to surf the Internet in campus. It’s always busy, very slow, and we’re unable to get connected because of limited coverage”.

(Respondent 10, DU16)

The fact that some students still reverted to the traditional method, as in the case of the respondents in the present study can be explained in terms of persistent fear of technology experienced by them. DDL “is claimed to have many advantages” (Boulton, 2012c: 39), however, there are still many objections, fear, and resistance towards its use. According to Higgins and Johns (1984, as cited in Boulton, 2009a), teachers and students would rather use ELT traditional materials more such as dictionaries, pencils, or papers to new technologies on the grounds that the expense and trouble using CALL materials do not particularly contribute to much larger gains. For example, in order to check for a word using DDL, a student needs to have several computer tools, for example a lap top and the Internet mobile (which may incur some expenses in cases of lack of Internet coverage within a college vicinity), some generalisation skills, and of course, more of students’ time. These activities, to some students, are tedious chores. However, checking up words in a dictionary requires only a simple task. Dictionaries can also be purchased or found easily and the availability of well-known published dictionaries such as Oxford Advanced Learners’ Dictionary (2011) or Longman Dictionary of Contemporary English (2009, 5th ed.) had encouraged the respondents in the study to opt for them.

Despite good promises that DDL can offer, there are still many challenges to successful employment of DDL. As quoted by Johns (2002: 1), “The direct use of concordance data poses a number of challenges: technical, linguistic, logistic, pedagogical and philosophical”. Many scholars have doubted the practicality and efficacy of DDL as a teaching method that can improve learning (see Boulton, 2010a; Chambers, 2004; Gaskel & Cobb, 2004; Kern, 2006; Jarvis, 2004; Salaberry, 2005; Wilson, 1997). Salaberry (2001) even argues that the use of ICT in classroom allows ‘technology-driven instruction’ to take over from a ‘pedagogically-driven approach’, causing a permanent danger. In other words, since many students are more comfortable with the traditional roles of teacher as knower and learner as recipient of knowledge, it may take some time to accept a new approach.

4.3.1.12 Difficulty in Understanding Cut-off Concordance Lines

Mauranen (2004: 99) points out that “working with DDL is a highly demanding task, and making sense of large amounts of law language material can be very challenging”. Another challenge faced by the subjects in the present study and the respondents in many DDL studies (see Balunda’s, 2009; Hadley, 2002 Rapti’s, 2013) was to understand and generalise rules such as word meanings and grammar rules via incomplete (chopped-off) concordance lines. Frustration of not finding what they are looking for has always caused ‘DDL-novices’ to resort to the traditional method and teaching materials. A respondent in this study shared her perils at understanding cut-off concordance lines when she commented:

“At first I was confused. I was asked to look at the lines but they are not complete sentences. However, after some time, and when I was asked to focus on the words in the middle and then to look at the words before and after, then I understand how to do it.”

(Respondent 4, DU13)

This daunting task demotivated the study respondents especially since they had been exposed to DDL for the first time (Rapti, 2013). Asian students, as in the case of the students in the present study, would find concordance lines very daunting since they had been exposed to complete sample sentences in the traditional teaching approach before. As informed by Johns (2002), one of the perpetual challenges faced by DDL learners is linguistic challenge and it was suggested that researchers should look for a better means to improve the phenomenon.

4.3.1.13 Increasing Need to include DDL in the Law Syllabus

The respondents anonymously had an opinion that there is an increasing need to include DDL in the law syllabus. They also suggested that DDL be introduced at the very beginning of the law programme and included in the law syllabus to help them with English. One student commented:

“I think it would be better if this course is included in our syllabus. When I was doing my foundation for law at UITM (MARA University of Technology, Malaysia), I had four English courses for law alone. In the courses, we had to do the forums, debates, acts, etc. We learned about the theory in one class, and we did the practice in another class. So, I guess, if this course is included in this law of degree programme, it would help me improve my English”.

(Respondent 2, DU26)

Another student said:

“Using correct collocations is difficult if we do not master them in the pre-course. I think I would be more aware of collocations if I learn like this. So, I agree that the pre-course like this should be established in the law programme to learn law collocations, i.e. the constitutional law”.

(Respondent 3, DU27)

Another student also added:

“I think this kind of course is effective in helping the students use the right collocations. I would propose that the MUET test that we have had now is changed to MUELT (Malaysian University of English for Law Test). The government should impose this kind of test on law students as an entrance test. This is because English for law is different from the ordinary English. In fact, the word ‘consideration’ in ordinary English means *bertimbang rasa* but in law it means *balasan*. They are two of totally different meanings”.

(Respondent 4, DU26)

Another student also commented:

“Yes, I believe that for law students, this course should be conducted at the very beginning of the year. Even though they have good English, they will not become automatically good at law. They cannot master law easily. In fact, in law courses, marks will be based on contents which make use of legal collocations. If they make use of plain English, then they cannot express themselves well in law”.

(Respondent 8, DU27)

Another student also stated:

“Yes, a lot. This is because if the students know the importance of this programme, they will take this as something serious. If they learn seriously, they will acquire the lesson well. They should notice that English used in Law of Contract I and II courses is different from general English. One example is the word ‘avoidable’. Law students should study law of contract collocations. They will need to start from the beginning rather than at the later stage (semesters 4 to 8) when they will learn English, but not as eager as when they are at the first semester”.

(Respondent 10, DU26)

Meanwhile, the students commented that the course should be made compulsory at the beginning of the programme to avoid fossilisation. One of them said:

“I think the course like this should be introduced to students at the very beginning of the law programme. It is very beneficial. In fact, this course should be made compulsory. They will study if the course has credit hours. If not, they will not study”.

(Respondent 6, DU27)

Another student added:

“Yes, I think, yes. If the modules were taught before the two of Law of Contract courses, it will help a lot. If they are taught later, students will revert to the old patterns”.

(Respondent 9, DU26)

Another student argued that exposure to DDL at the beginning of law programme can boost their interest and motivation in learning English. She commented:

“Yes, a lot. This is because if the students know the importance of this programme, they will take this as something serious. If they learn seriously, they will acquire the lesson well. They should notice that English used in Law of Contract I and II courses is different from general English. One example is the word ‘avoidable’. Law students should study law of contract collocations. They will need to start from the beginning rather than at the later stage (i.e. semesters 4 to 8) [because] when they learn English, they will not [become] as eager as when they are at the first semester”.

(Respondent 10, DU27)

An increase in the learners' interests and motivation with DDL can be related to the selection of the corpus sources which reflect the communicative exchanges that take place in the target context, for example legal context. The DDL course also opened up the students' hope for establishing the English for Academic Legal Purposes (ELAP) course for law undergraduates and having a more practical entry requirement English test (MUELT) to replace the current MUET test in FLAIR, UniSZA. Fuentes (2007) and Gavioli (2005) agree that a good ESP course should include a corpus-based application. Specialised corpora used could display the most frequent technical and academic words appearing in a specialised discourse which will cover the lexis essential for a student learning of a specialised discourse like law. Therefore, to include corpora in teaching legalese should be a necessary activity especially when there are limited resources and legal materials available to teaching law students (see Candlin et al., 2002; Krois-Lindner, 2006; Master, 2005).

This section attempts to explore the respondents' perceptions, attitudes, and difficulties they had experienced in dealing with DDL lessons based on the interviews. Some interesting findings were observed, for example learners' positive attitudes with DDL, persistent difficulty with some patterns and sentence structures, and increasing need to include DDL in the law syllabus. The next section discusses the students' perceptions and attitudes towards DDL and corpus use based on the data from the survey questionnaire.

4.3.2 Survey Questionnaire

The survey questionnaire comprises 30 items, and it was sub-categorised into four sections: (1) DDL versus non-DDL Approaches (items 1 to 8), (2) Advantageous of Corpus Use (items 9 to 14), (3) Difficulties/Problems in Corpus Use (items 15 to 24), and (4) Corpus Use in Grammar and Preposition Learning (items 25 to 30). The findings obtained from the data will be presented based on the sub-categories, and each item in each sub-category will be discussed sequentially.

Table 4.15: DDL versus non-DDL approaches

No. Scale	Frequency and Percentage (%)					
	SD	D	SL D	SLA	A	SA
1. I prefer DDL to the traditional preposition instruction.	1 5%	2 10%	0	2 10%	11 55%	4 20%
2. The DDL approach makes preposition learning easier.	0	0	1 5%	1 5%	13 65%	5 25%
3. The DDL approach makes preposition learning more enjoyable.	0	0	1 5%	1 5%	13 65%	5 25%
4. I prefer corpus use online to paper-based materials in the traditional approach.	0	2 10%	3 15 %	3 15%	6 30%	6 30%
5. I prefer corpus use online to paper-based concordance outputs in the modules.	0	0	2 10 %	4 20%	9 45%	5 25%
6. I prefer working independently online to teacher intervention in the traditional classroom.	0	1 5%	1 5%	9 45%	8 40%	1 5%
7. I prefer more teacher intervention in the DDL course to working independently online.	1 5%	0	3 15 %	3 15%	9 45%	4 20%
8. I trust the teacher more than the corpus data.	0	0	3 15 %	9 45%	4 20%	4 20%

Indicator: SD = Strongly Disagree; D = Disagree; SLD = Slightly Disagree;
SLA = Slightly Agree; A = Agree; SA = Strongly Agree

4.3.2.1 Preference for DDL in Preposition Instruction

Based on the statistical results shown in Table 4.15, a majority of the respondents were observed to be in agreement with the statements in the first section of the survey questionnaire: DDL versus non-DDL approaches. In response to item 1, 4 (20%) of the respondents strongly agreed, 11 (55%) agreed, and 2 (10%) slightly agreed with the following statement: *I prefer DDL to the traditional preposition instruction*. Only three respondents disagreed with the statement when one respondent (5%) strongly disagreed and two students (10%) disagreed.

Meanwhile, when asked whether DDL approach would make preposition learning easier, 5 (25%) of the subjects strongly agreed, 13 (65%) agreed, and 1 (5%) slightly agreed with the second item. Only one respondent had a slight disagreement (slightly disagreed) with the item.

The respondents were also in consensus that DDL approach would make preposition learning more enjoyable when 5 (25%) of the subjects strongly agreed, 13 (65%) agreed, and 1 (5%) slightly with the statement. Only 1 respondent (5%) slightly disagreed with the statement.

The results obtained from item 1 clearly showed that 17 out of the 20 respondents (85%) preferred DDL to the traditional preposition instruction compared to the three respondents (15%) who disagreed with the statement. The findings obtained from item 2 also showed the same result. Besides, 19 (95%) out of the 20 respondents agreed that DDL approach would make preposition learning easier in contrast to only 1 (5%) of the

respondents who slightly disagreed with the statement. The respondents also agreed that DDL approach would make preposition learning more enjoyable (item 3) when 19 (95%) of the respondents showed their agreements in comparison to only 1 (5%) of the respondents who disagreed.

The findings also revealed that the learners preferred a combination of both DDL approaches, indirect (deductive) and direct (inductive) DDL to the traditional approach (fully deductive) in learning prepositions. Several explanations can be given to this. DDL was found to benefit the students as a result of an inductive approach and the use of technology (online DDL) in learning the patterns. Many have reported about the usefulness or 'affordances' of DDL learning. Bernardini, Baroni, and Evert (2006), Boulton (2012c), and Hafner and Candlin (2007) claim that corpus has brought to light a new revolution in ELLT in terms of providing a large amount of data to learners which represent the actual usage uttered by the discourse community. This has given the opportunity for the learners to be exposed to a large number of contexts where textbooks cannot accommodate. In other words, the "special flavour of DDL can best be conveyed by concrete examples...." (Johns & King, 1991: 6)

The fun and motivating aspects of DDL due to technology use and DDL activities such as guessing meanings from contexts can also be claimed as the two factors contributing to the respondents' positive attitude. Balunda (2009), Götz & Mukherjee (2006), and Hadley (2002) perceived DDL as motivating because of the interactive and inductive challenges it brought to them. They commented on the interesting and fun aspect of DDL, the assistance (scaffolding), which had guided the students in the initial stage to generalise rules and determine the word meanings by themselves. The scaffolding

effects have much to contribute to the students' positive attitudes towards DDL (Ha Le, 2010, Yoon, 2008).

4.3.2.2 Students' Preference for Online DDL to Paper-based Concordance Printouts (DDL module)

It was also found that the respondents preferred corpus use online⁶⁷ to paper-based materials in the traditional approach. 6 (30%) of the respondents strongly agreed, 6 (30%) agreed, 3 (15%) slightly agreed, 3 (15%) slightly disagreed, and 2 (10%) disagreed with the statement. Besides, in responding to item 5, *I prefer corpus use online to paper-based concordance outputs in the modules.*, 5 (25%) of the subjects strongly agreed, 9 (45%) agreed, 4 (20%) slightly agreed, and only 2 (10%) slightly disagreed with the statement. It can be summarised that 18 respondents (90%) agreed with item 4 as opposed to the 2 respondents (10%) who disagreed, and 18 (90%) of the respondents were in accordance with item 5 compared to only 2 (10%) of the 20 respondents who expressed their disagreement with the statement.

The students also gave various answers in responding to item 6 - *I prefer working independently online to teacher intervention in the traditional classroom.* The results showed that only 1 (5%) of respondents strongly agreed and 1 (5%) agreed with the statement. 9 (45%) of the respondents slightly agreed, 8 (40%) of them slightly disagreed, and 1 (5%) disagreed with the given statement. This clearly showed that 11 (55%) of the respondents agreed they would prefer working independently online compared to 9 (45%) of the respondents who preferred teacher intervention in the traditional classroom.

⁶⁷ The term 'corpus use online' here refers to the BNC for law.

Several explanations can be given to explain the above situation. In line with technological advances in ELLT, computers, mobile phones, and the Internet have become a necessity (Kern, 2006). These study respondents had been exposed to technology since they were young as a result of e-learning and mobile learning revolution in ELLT (Norazah Mohd Nordin, Mohamed Amin Embi, & Melor Md. Yunus, 2010). Since the students had acknowledged the benefits of technology to promote their learning, given the two choices, they preferred online corpus consultation more to the conventional approach.

Besides, the adventurous activities the learners had engaged with while working with the corpus activities online helped explain the respondents' selection for online corpus use. Lextutor is a website that engages learners with many adventurous experiences compared to the traditional materials. Besides the BNC for Law, a variety of other programmes offered which are interactive and informative, for example Group Lex version 8.0, Corpus_Grammar, and List_Learn, to name a few, had also attracted them further.

Psychologically, the students gained more confidence after browsing Lextutor website as they constitute good resources for language learning. In other words, they had much freedom to uncover deeper knowledge of the language used in their subject field, the language of the law, rather than "trusting unquestioningly the authority of the teacher" (Bernardini, 2004: 108).

4.3.2.3 Preference for an Early Teacher Intervention in the DDL Course

Table 4.16 also indicated that many respondents were in agreement with the following statement: *I prefer more teacher intervention in the DDL course to working independently online.* This was evident from the results indicating that 4 (20%) of the respondents strongly agreed, 9 (45%) of them agreed, and 3 (15%) slightly agreed with the statement. Only 6 (30%) of the respondents disliked the idea when 3 (15%) slightly disagreed and the other 3 (15%) strongly disagreed with the statement. Finally, in response to the last item of this section (item 8), *I trust the teacher more than the corpus data.*, a majority of the respondents also showed their agreement with the statement. The results indicated that 4 (20%) of the respondents strongly agreed, 4 (20%) agreed, and 9 (45%) slightly agreed with the same statement. It was found that 3 (15%) of the respondents slightly disagreed with the same statement.

One of the promising aspects of DDL is scaffolding (Ha Le, 2010) which comes in the form of teacher-guided and concordance-prepared materials. Though hands-on concordancing allows learners to marvel at corpus data more freely and encourage ‘serendipitous’ learning (Bernardini, 2005), ‘DDL-novices’, as in the case of the students in the present study, still require teacher’s guidance especially at the very beginning of DDL course (O’Keefe et al., 2007) to finish the tasks. This explains for the respondents’ (16 or 80%) preference for teacher intervention in the DDL course to independent online corpus consultation, a similar finding reported in Yoon and Jo’s (2014) study. This finding was also in line with the earlier statement made by Johns (1991a; 1991b; 2002) that the actual spirit of DDL is teacher intervention or supports. The supports came from facilitating learners through the use of prompts and clues,

paper-based concordance printouts, and deductive online search rather than independent online search. This finding also supported the earlier finding obtained from the interviews conducted earlier. A majority of the respondents had viewed the teacher-researcher both as knowledge provider and facilitator (Flowerdew, 2009).

This interesting finding; that is, the act of putting teacher at the centre stage, has evidently showed that teacher still plays a big role in education no matter how sophisticated technology is. The teacher-researcher was regarded as a more reliable source of information than was online resources by the respondents in the present study. Yoon and Jo (2014) reported a similar pattern with their study respondents. Teacher's assistance was sought after by their study respondents in working with both indirect and direct corpora.

Table 4.16: Advantageous of corpus use

No. Scale	Frequency and Percentage (%)					
	SD	D	SLD	SLA	A	SA
9. Using the corpus is helpful in improving my knowledge of prepositions.	0	2 10%	3 15%	3 15%	6 30%	6 30%
10. Using the corpus is helpful in improving my knowledge of colligations of prepositions.	0	0	0	2 10%	11 55%	7 35%
11. Using the corpus is helpful in learning the meaning of prepositions.	0	0	0	3 15%	12 60%	5 25%
12. Using the corpus is helpful in checking the preposition errors.	0	0	0	1 5%	14 70%	5 25%
13. Using the corpus is helpful in improving my sentence patterns.	1 5%	0	0	3 15%	13 65%	3 15%
14. Using the corpus is helpful in increasing my confidence about learning English for Law.	0	0	0	4 20%	9 45%	7 35%

Indicator: SD = Strongly Disagree; D = Disagree; SLD = Slightly Disagree; SLA = Slightly Agree; A = Agree; SA = Strongly Agree

4.3.2.4 Multiple Affordances of DDL

Table 4.16 showed the results of the second section of the survey questionnaire: The advantageous of corpus⁶⁸ use. The findings revealed that 6 (30%) of the respondents strongly agreed, 6 (30%) agreed, 3 (15%) slightly agreed, 3 (15%) slightly disagreed, and 2 (10%) disagreed that corpus was helpful in improving their knowledge of prepositions. Meanwhile, it was evident from the table also that 7 (35%) of the subjects strongly agreed, 11 (55%) agreed, and only 2 (10%) slightly agreed that using corpus was helpful in improving their knowledge of colligations of prepositions. Besides, the majority of the students also agreed that using corpus was really helpful in learning the meanings of prepositions. This was evident from the table when 5 (25%) of the respondents strongly agreed, 12 (60%) agreed, and 3 (15%) slightly agreed with the statement. Interestingly also, it was found from the results that almost all of the respondents, i.e. 19 (95%) agreed that using corpus was really helpful in checking their preposition errors. The statistical results showed that 5 (25%) of the respondents strongly agreed, 14 (70%) disagreed, and 1 (5%) slightly agreed with the statement.

A majority of the respondents also agreed that using corpus was really helpful in improving their sentence patterns. It was evident from the table when 3 (15%) of the respondents strongly agreed, 13 (65%) agreed, and 3 (15%) slightly agreed with the statement. Only one respondent strongly disagreed with the statement. Besides, almost all respondents agreed that using corpus was particularly helpful in increasing their confidence about learning English for Law. 7 (35%) of the respondents strongly agreed, 9 (45%) agreed, and 4 (20%) slightly agreed with the statement. None of the

⁶⁸ The term corpus refers to both paper-based concordance outputs and the BNC online.

respondents disagreed when asked whether using corpus was helpful in boosting their confidence about learning English for Law.

DDL has multiple affordances (Hafner & Candlin, 2007), and one of them is an opportunity to observe the socio-pragmatic functions the patterns play in actual contexts - academic legal contract genre. Another benefit of DDL is in helping the respondents check their preposition errors. This may enhance learners' cognitive skill (Bernardini, 2004), in which students will be trained to be more critical and sensitive to detect errors.

In addition to improved colligation knowledge and meaning, the results obtained from the last item of this section showed that almost all the respondents (19 or 95%) were in agreement that corpus was really helpful in improving their production of single-sentence patterns compared to one (5%) of the respondents who disagreed with the same statement. This positive finding can be explained in terms of the major function that a corpus plays - it shows evidence of actual language use in a large number of contexts. Yoon (2008) reported in his study that corpus use benefitted learners especially in improving their writing. In his words, "Once the corpus approach was introduced to the writing process, the students assumed more responsibility for their writing and became more independent writers, and their confidence in writing increased" (Yoon, 2008: 31). The subjects in this study might also perceive corpora as reliable sources of assistance, thus boosting their level of confidence.

A rather interesting finding can be observed from the last item of this section. The 20 respondents were anonymously in agreement that corpus was particularly helpful in

increasing their confidence about learning English for Law. This positive finding can be explained in terms of the students' recent introduction to corpus in the course and the advantages of corpus use. As mentioned in Chapter One, none specialised ESP programmes has been prepared for undergraduate law students in FLAIR, UniSZA so far. Therefore, when the DDL course was introduced and the students realised the very benefits of the course and corpora, their confidence level had increased. This explains for the anonymity of the respondents' agreement with the item. In time where English for law teaching resources have been rare (Candlin, 2002; Marco, 2005), the use of corpora in the course would increase the number of the resources.

4.3.2.5 Lack of Difficulties with Corpus Use

Table 4.17: Difficulties / problems in corpus use

No. Scale	Frequency and Percentage (%)					
	SD	D	SLD	SLA	A	SA
15. I have some difficulty in using the corpus due to limited access to computer/ Internet.	8 40%	3 15%	2 10%	2 10%	3 15%	2 10%
16. I have some difficulty in using the corpus due to low speed of the Internet connection.	5 25%	6 30%	3 15%	1 5%	4 20%	1 5%
17. I have some difficulty in using the corpus due to unfamiliar vocabulary in the concordance outputs.	6 30%	8 40%	6 30%	0	0	0
18. I have some difficulty in using the corpus due to cut-off sentences in the concordance outputs.	6 30%	10 50%	3 15%	1 5%	0	0
19. I have some difficulty in using the corpus due to too few sentences in the concordance outputs.	3 15%	9 45%	5 25%	3 15%	0	0
20. I have some difficulty in using the corpus due to too many sentences in the concordance outputs.	3 15%	9 45%	5 25%	3 15%	0	0
21. I have some difficulty in analysing the concordance outputs.	3 15%	9 45%	5 25%	3 15%	0	0

22. I have some difficulty in using the corpus because data analysing takes too much time for me.	2 10%	11 55%	5 25%	2 10%	0	0
23. I have some difficulty in the search technique.	4 20%	9 45%	2 10%	3 15%	2 10%	0
24. The real texts of the corpus are too difficult to understand.	1 5%	11 55%	5 10%	1 5%	2 10%	0

Indicator: SD = Strongly Disagree; D = Disagree; SLD = Slightly Disagree; SLA=Slightly Agree; A=Agree; SA=Strongly Agree

The barriers to successful implementation of DDL have been related, for instance, to limited Internet coverage, lack of instructors' expertise, and cut-off concordance lines (see Bernardini, 2002; Mukherjee, 2004; Seidlhofer 2000). However, the results in Table 4.16 indicated that the study respondents did not regard those barriers as impeding their DDL study progress. When asked whether they faced difficulty in using corpus in the DDL approach, 8 (40%) of the respondents strongly disagreed, 3 (15%) disagreed, 2 (10%) slightly disagreed, 2 (10%) slightly agreed, and 3 (15%) of them agreed and 2 (10%) of them strongly agreed that they had difficulty with corpus use due to limited access to the computer/Internet.

Meanwhile, it was evident from the table also that 5 (25%) of the respondents strongly disagreed, 6 (30%) disagreed, 3 (15%) slightly disagreed, 1 (5%) slightly agreed, 4 (20%) agreed, and 1 (5%) strongly agreed that they had some difficulty with corpus because of the low speed of the Internet connection. Furthermore, the table also showed that 6 (30%) of the respondents strongly disagreed, 8 (40%) disagreed, and 6 (30%) slightly disagreed that they faced difficulty in using the corpus due to unfamiliar vocabulary in the concordance outputs. None of the participants agreed that they had difficulty in using the corpus due to their lack of familiarity with words in the concordance lines.

Some logistic problems such as technicalities and Internet connection are considered as potential barriers to the smooth running of the implementation of DDL for classroom activities (Johns, 2002). In the case of the present study, the respondents did not regard Internet connectivity and low speed as their main problems. This might have been caused by the use of paper-based concordance printouts, the DDL module, which were used as the main source of materials. So, in cases where Internet connectivity failed,⁶⁹ DDL sessions could still be carried out (Hadley, 2002).

The use of technology to supplement classroom learning has become a trend in this digital era (Kern, 2006). However, there are many barriers to the implementation of technology in classroom itself, for example Internet limited access and speed. Boulton (2010c) can be considered as an active DDL researcher who has immensely proposed the use of paper-based concordance printouts instead of online DDL to prevent any potential technological barriers to occur in DDL classroom. One of the main reasons is to avoid this barrier from interrupting the smooth running of the implementation of DDL. In fact, the true flavor of DDL is printed concordances, not online search (Boulton, 2010c, Johns, 1991b).

Besides, an interesting finding was also found from the students' responses to item 17. It disclosed an anonymous disagreement among the 20 respondents (100%) with the statement that they faced difficulty in using the corpus due to unfamiliar vocabulary in the concordance outputs. In other words, all the respondents did not regard unfamiliar vocabulary as their barrier to corpus use.

⁶⁹ Fortunately, the Internet connectivity failure never occurred during the seven-week of DDL course.

This phenomenon can be explained in many ways. The moment students are familiar the concordance data, they would not experience any fear to meet the challenge of difficult vocabulary. Basically, the concordances used for classroom teaching and learning should be within the grasp of the students' level of language proficiency. In the case of specialised disciplines like law, the corpus chosen for law students by ELAP instructors may come from two sources – either it is developed by law instructors themselves or the corpora which are available online. Since the corpus is law-related, the words used in the corpus should also be related to the field of law and law students should be familiar with them.

In the case of the present study, the students' familiarity with the lexico-grammatical patterns explained the students' lack of difficulty or having obstacles in understanding the vocabulary used in the concordance lines. Previous exposure to the prepositional patterns in the law of contract textbooks and lecturers had indeed increased their familiarity with the patterns. Despite the fact that their awareness of the colligational patterns had been only recently, that is, during and after the intervention sessions, their previous meetings with the patterns in the textbooks and lecturers helped them recall some of the patterns. This familiarity factor had contributed to the respondents' reduced obstacles with the vocabulary used in the concordance lines. To conclude, if students are familiar and able to recognise the genre of their discourse community, they should not have problems with “the privileged property of a genre”, for example the “form, structure, and audience expectations... prototypical of a particular genre” (Swales, 1990: 52).

Furthermore, it was also found from the table that a majority of the respondents did not agree that cut-off sentences were their major difficulty in using corpus. This was evident from the table when 6 (30%) of the subjects strongly disagreed, 10 (50%) disagreed, 3 (15%) slightly disagreed, and only 1 (5%) slightly agreed with the statement that they had some difficulty in using the corpus due to cut-off sentences in the concordance outputs.

It was also found that almost all respondents (19 or 95%) disagreed that cut-off sentences was their major difficulty in using corpus. This finding was in line with some DDL study findings which reported that despite chopped-off or unfinished sentences, this factor did not heavily influence the posttest results (Boulton, 2007a; Hadley, 2002; Koosha & Jafarpour, 2006). Yoon and Hirvela's (2004) findings, however, showed that 62% of their respondents regarded cut-off sentences as difficult, resulted mainly from the use of corpus online as the sole reference instead of introducing both materials (concordance-printed materials and online resources).

The fact that learners face difficulty with unfinished concordance lines has been a common learner complaint for more than 20 years (Boulton, 2009a). Their complaint is mainly related to difficulty in interpreting data (Johns, 2002). However, the reason why the students in the present study did not find cut-off sentences as challenging can be described in terms of the use of concordance-printed materials (module) and teacher intervention. These two factors helped ease their difficulty for they were not left alone to marvel at large amounts of corpus data unassisted.

Besides that, the findings also showed that a majority of the participants disagreed with the three following statements: *I have some difficulty in using the corpus due to too few sentences in the concordance outputs* (item 19), *I have some difficulty in using the corpus due to too many sentences in the concordance outputs* (item 20), and *I have some difficulty in analysing the concordance outputs* (item 21). The results showed that the same number of participants strongly disagreed (3 or 15%), disagreed (9 or 45%), and slightly disagreed (5 or 25%) with the three statements compared to 3 (15%) of the respondents who slightly agreed with the three statements.

The results shown as above can be explained in terms of learner readiness to learn. Once students are exposed to the concordance data and they know how to deal with them, learning will take place smoothly and lightly. Concordance data are not a burden to all students, and this can be absorbed also by the lower and intermediate proficient learners of English (Boulton, 2007a, 2009c; Hadley, 2002). Once a learner is trained with the skill to manipulate the concordance data, for example the skill to generalise the rules of forms, the learner becomes a 'linguistic researcher' or in other words, "Every student a Sherlock Holmes" (Johns, 1997a: 101). Generalising rules did not affect or cause difficulty to the students in the present study despite the limited number or too many of the concordance lines given.

Meanwhile, it was evident from the table that 2 (10%) of the subjects strongly disagreed, 11 (55%) disagreed, 5 (25%) slightly disagreed, and only 2 (10%) slightly agreed with the statement that corpus analysis took too much of their time. A majority of the students (60%) also disagreed that analysing concordance outputs was their major obstacle. This was evident from the statistical results when 4 (20%) of the

respondents strongly disagreed, 9 (45%) disagreed, and 2 (10%) slightly disagreed with the statement. It was found that 3 (15%) of the participants slightly agreed and 2 (10%) agreed with the same statement.

The findings of this study were in line with the finding obtained in Boulton's (2009c) study that corpus analysis did not take much of the students' time and DDL analysis was not particularly the learners' main difficulty. The students with different English proficiency levels were able to get a grasp of the skill despite zero training. He thus concluded that the students' difficulty was not related to DDL training or data interpretation but rather the use of authentic language. The finding also confirmed Boulton and Wilhelm's (2006: 69) statement that given minimal training with corpus tools, "learners are quick to see a variety of applications [of corpus linguistics] in language learning and other areas".

It is evident therefore that lack of training cannot be blamed as a potential factor to explain about students' having difficulty with corpus use. Learners are sometimes able to work with concordance data within a short period of time after they are introduced to DDL. Bernardini (2001: 243) argues that "the difficulties should not be overestimated; learners should quickly acquire the skills needed". Meanwhile, Sinclair (2004: 297) asserts that "any teacher or student can readily enter the world of the corpus and make the language useful in learning". Both teachers and students can make use of a corpus, even if they are given only a few hours of orientation (Sinclair, 2004).

Table 4.18: Corpus use in grammar and preposition learning

No. Scale	Frequency and Percentage (%)					
	SD	D	SLD	SLA	A	SA
25. I feel comfortable using corpus technology.	0	0	1 5%	4 20%	7 35%	8 40%
26. The corpus is a useful resource for my grammar learning.	0	0	0	1 5%	11 55%	8 40%
27. Using the corpus has changed my understanding of prepositions.	0	0	1 5%	3 15%	9 45%	7 35%
28. As I have used the corpus more, I have come to like it more.	0	0	2 10%	3 15%	8 40%	7 35%
29. If I had used the corpus earlier, I would have had a better score in academic writing.	0	0	1 5%	3 15%	9 45%	7 35%
30. If I had used the corpus earlier, I would have had a better score in my CGPA.	0	0	2 10%	6 30%	5 25%	7 35%

Indicator: SD = Strongly Disagree; D = Disagree; SLD = Slightly Disagree;
SLA = Slightly Agree; A = Agree; SA = Strongly Agree

4.3.2.6 A Good Approach for ESP Grammar and Preposition Learning

One of the advantages of DDL is its resourcefulness to provide sufficient data for ESP grammar and vocabulary learning (Hunston, 2002). The responses received as shown in Table 4.18 indicated that corpus use (DDL) is a better approach for ESP grammar and vocabulary learning. This is evident from the statistical results when 8 (40%) of the respondents strongly agreed, 7 (35%) agreed, and 4 (20%) slightly agreed that they felt comfortable using corpus technology in learning grammar and prepositions. An interesting result was also found when almost all respondents (19 or 95%) agreed that corpus had been a useful resource for grammar learning. This was evident from the table when 8 (40%) of the respondents strongly agreed, 11 students (55%) agreed, and only 1 (5%) slightly agreed with the statement. None of the respondents disagreed with the statement. A majority of the subjects also had the same opinion that corpus use had been very helpful in increasing their understanding about prepositions. This was evident

from the results which indicated that 7 (35%) of the respondents strongly agreed, 9 (45%) agreed, and 3 (15%) slightly agreed with the statement. The results showed that only 1 (5%) of the respondents disagreed that their understanding about prepositions would increase by using corpus.

The findings also indicated that a majority of the respondents reacted positively when asked whether they had a gradual liking towards corpus after being introduced to. This was particularly true in response to the following statement: *As I have used the corpus more, I have come to like it more.* The statistical results indicated that 7 (35%) of the participants strongly agreed, 8 (40%) agreed, and 3 (15%) slightly agreed with the statement. The results showed that only 2 (10%) of the respondents slightly disagreed with the statement.

In other words, the students' preference for DDL was greatly motivated by their growing confidence and trust in corpora after being exposed to them for seven weeks. This finding supports the earlier study findings (post-course interview) that the students' having positive attitudes towards DDL was due to their improved self-confidence in DDL and the DDL's shown benefits which trained them to become more technology savvy and autonomous.

A similar finding was also reported in Balunda's (2009), Rapti's (2013), and Yoon's (2005) studies. Yoon (2005) reported that his respondents put more trust and confidence in DDL due to the availability of the corpora as their major sources of information; that is, for checking grammar and word usage while producing the final writing drafts. According to Yoon (2005: 251), "the corpus served as a meaningful reference for

language input and also served as a catalyst in helping them to become more attentive to their writing”. Though the writing task in this present study was limited to writing only a single-sentence, the students still made use of the corpus online (the BNC for Law) and the concordance printouts from the LCC to check the prepositional patterns and other grammar and vocabulary usages. He also reported that the students’ learning burden may be reduced this way, thus supporting the finding in this present study that the students might have felt at ease and comfortable using the corpora.

Balunda’s (2009: 51) finding also supports this study finding when she reported that DDL “may increase students’ confidence in their ability to utilise ... [the] vocabulary learning strategy, ... leading to more efficient and autonomous use of this strategy outside of classroom”. Balunda asserts that the skill of guessing meanings of patterns from contexts is a vital skill very much required of in students’ academic life. The participants in this study had acknowledged the potential implications of DDL in increasing their knowledge of prepositions including the knowledge of guessing the semantic-functions of prepositional patterns.

4.3.2.7 The Potentials of DDL in Increasing the Respondents’ Academic Success

To law students, gaining success in a professional programme like law is a challenging task. Since their confidence in DDL had increased, this group of students believed that corpus use had a potential to increase their academic results. The statistical results indicated that 7 (35%) of the participants strongly agreed, 8 (40%) agreed, and 3 (15%) slightly agreed with the statement. Only 2 (10%) of the respondents were found to slightly disagree with the statement. The findings also indicated that many respondents

agreed with the statement that corpus use would help them obtain a better score in academic writing in future. This is evident from their responses when 7 (35%) strongly agreed, 9 (45%) agreed, and 3 (15%) slightly agreed with the statement. Finally, in response to the last item of this section - *If I had used the corpus earlier, I would have had a better score in my CGPA (Cumulative Grade Point Average)*, their responses also varied. It was found that 7 (35%) of the respondents strongly agreed, 5 (25%) agreed, and 6 (30%) slightly agreed. 2 (10%) of the respondents slightly disagreed with the statement.

The learners' confidence in the impact of DDL on their academic success can be explained in several ways. First, the students may have realised the very potentials of DDL in increasing their academic success. Besides, the students may have also acknowledged the importance of technology use in ELAP to complement the learning resources which have been proven to be lacking in this field (see Candlin et al., 2002).

Very few empirical DDL studies have investigated a direct relationship between DDL and learners' CGPA. However, numerous studies reported the influence of DDL on students' academic success, for instance improvements in their lexical acquisition (Cobb, 1997; Zahar, Cobb, & Spada, 2001; Web & Kagimoto, 2009), collocations (Ha Le, 2010), reading and critical thinking (Ashtiani & Tahriri, 2013; Nuraihan & Husin, 2004), writing fluency (Jafarpour, Hashemian, & Alipour, 2013; Sun, 2007; Yeh et. al., 2007; Zhang, 1993), and in ESP areas, for example health communication (Crawford & Brown, 2010), law (Gavioli, 2005; Gozdz-Roszkowski, 2004), and information technology (Fuentes, 2002). Some DDL studies also show the potential of improving the respondents' International English test scores such as TOEIC - Test of English for

International Communication (Boulton, 2009a). To conclude, the impact of DDL on students' academic success as reported in the number of studies mentioned constitute some potential explanations to the students' growing trust and confidence in DDL as shown by their responses in the last two items of the survey questionnaire.

In this section, we have discussed the respondents' perceptions and attitudes towards corpus use. Based on the findings, the students perceived, among others, that DDL is a better approach to learn grammar and preposition, DDL has the potential to increase their academic success, DDL has multiple affordances. In the next section, we will uncover in depth of the upward and downward trends of individual learners' performance in each task of the pretest/posttest and their possible explanations.

This section continues with the report findings on individual students' performance in the pretest/posttest.

4.3.3 Analysis of Individual Students' Performance in the Pretest/Posttest

Ellis (1994) has argued that L2 learners differ in the acquisition and process of an L2. There are individual learner variables (differences) which may affect the rate and success of an L2 which include, among others, age factor, language proficiency, the previous L2 learning, and background knowledge. He proposes that learners who are gifted for formal study are more likely to learn more rapidly, and the learners who have had the experience of learning L2 may be familiar, to a certain extent, with the L2 due to their previous exposures to L2 lexical items and syntactic features. In other words, background knowledge (content knowledge of specialised subjects) may also affect the

rate of acquisition of a new ESP learning (see Cheng et al., 2003; Jordan, 1999) such as law (Ahmad, 2009; 2011).

Based on this very fact, the researcher aimed to gain in-depth insights of the factors influencing the students' performance of colligations of prepositions by investigating individual learners' performance. This was carried out by observing an increase or a decrease (upward or downward trends) in each task of the pretest/posttest and examining the extent to how much the increase or decrease in the scores was influenced by the respondents' previous education (legal/non-legal).

Before presenting the findings, it is apt at this juncture to give an overview of the previous education of the respondents before they did their bachelor degree in FLAIR, UniSZA. Based on Table 4.19, 18 of the respondents (9 in DDL and 9 in non-DDL groups) had a diploma degree in law from KUSZA (now known as UniSZA), the only group that studied law content subjects. 14 respondents (7 in DDL and 7 in non-DDL groups) had a foundation in law (a matriculation programme), in which the students learned English communication and legal skills but not the law content subjects. The students who did not have any basic law education were those who took STPM⁷⁰ (5 respondents, 2 in DDL and 3 in non-DDL groups) and STAM⁷¹ (3 respondents, 2 in DDL and 1 in non-DDL groups). The following two sub-sections will discuss the findings in relation to the learners' previous education.

⁷⁰ This represents a Malaysian national examination taken by pre-university students at the end of their two-year schooling, one year in lower six and another year in upper six.

⁷¹ This represents a Malaysian national examination taken by pre-university students at the end of their two-year schooling, one year in lower six and another year in upper six. The only difference from the former is that this group of students took Arabic and Islamic subjects.

Table 4.19: Respondents' previous legal education

Previous Education	DDL N = 20	Non-DDL N = 20
Diploma in Law	9	9
Foundation in Law	7	7
STPM (Malaysian Higher Certificate of Education)	2	3
STAM (Malaysian Higher Certificate of Religion (Islam))	2	1

This section presents the findings based on the mean scores and individual students' performance in the pretest and posttest tasks and overall scores of DDL and non-DDL groups. To give an overview, the students who scored 43 to 56 out of 60 marks were classified as high scorers and those who scored 35 to 42 marks out of 60 were low scorers. This section continues with the report findings on DDL group.

4.3.3.1 The Impact of the Previous Legal Education on the Foundation in Law Students

In the case of DDL group, it was evident that the previous legal education had impacted significantly on the individual performance of the students in the foundation in law's group in the posttest tasks. Table 4.19 indicated that the means of all the tasks of the posttest (except for the error-identification and correction) obtained by the foundation in law's group were the highest of the four groups' means. It was also evident that the means of the diploma in law's group came second, followed forth by the STPM's group (the third) and STAM's group (the fourth).

Though it was previously expected that the students who had a diploma in law should have fared better for they had been exposed to legal content subjects and legal phraseology for more than three years, the fact that their mean scores came second after the foundation in law's group deserves some profound explanations.

4.3.3.2 The Impact of General English Proficiency

One of the explanations may be related to the learners' general English proficiency. As was evident in Table 4.20 below, the learners' general English proficiency was demarcated by the students' performance of English in two major Malaysian English tests (SPM and MUET). While the SPM English result indicates students' (non) mastery of English in the secondary education, MUET serves as an entrance test for admission in Malaysian universities including in FLAIR, UniSZA. The data indicated that a majority of the students in the foundation group obtained either grades A1 or A2 in SPM (advanced level of English proficiency) compared to either grades B (3/4) or C5 (upper intermediate level of English proficiency) by the students in the diploma in law's and STAM's groups.

Another advantage that this group had is that they had been taught English communication skills for a year in the foundation in law programme in Malaysian universities which provided extra opportunities for them to practise and enhance their English. In the case of the STPM and STAM students, they did not receive any formal English language teaching after SPM and during their two-year of schooling (one year in the lower six and another year in the upper six)⁷².

The students who were admitted to the one-year foundation in the law programmes in Malaysian public universities are those who had been selected among the 'cream'. They were the students who excelled in all subjects including English in SPM (obtaining either grade 'A1' (distinction) or grade 'A2 (excellent)) and also a strong band in MUET (either 3 to 6 depending on the admission requirements set by certain

⁷² These students had their pre-university education in secondary schools. The first year is called lower six and the second year is upper six.

universities). Though basically all law students had met the minimum requirements of admission in FLAIR, UniSZA when they had obtained at least a MUET band 3 and a C5 in SPM, and they were regarded as at par with each other in terms of their English proficiency level, the range of different scores obtained clearly indicated an occurrence of mixed-ability learners in a class. The students who obtained an A1 in SPM and a MUET band 3 or 4, for example, were observed to perform better than others in some of the tasks and overall scores of the posttest (see the scores obtained by S1, S2, S3, S4, and S5 in the single-sentence production task, S1, S6, S7, S8, and S9 in the semantic function task, and S3 in the overall score).

We do not deny the fact that the students in the foundation in law and diploma in law's group also had cases of decrease, no change, or slight increase in score in some of the posttest tasks. For example, in the foundation in law's group, the scores of S4 increased only by 1 mark in the gap-filling and single-sentence production tasks, and in the diploma in law's group, S14 and S16 also got only one mark increase in the gap-filling task. A stable pattern can be observed, for example, in the case of S7 when this student obtained a no change in score in the gap-filling task (4 marks in the pretest and 4 marks in the posttest) and error-identification and correction task (14 marks in the pretest and 14 marks in posttest). A big decrease in score can be observed, e.g. in the case of S5 in the semantic function task when the respondent got a reduction of 4 marks in the posttest. However, a stable pattern as shown in the case of S17 (a STPM student) in both the gap-filling task (4 marks in the pretest and 4 marks in posttest) and semantic function task (2 marks in the pretest and 2 marks in the posttest) deserves some explanations.

This student, as we may notice, had indeed managed to get full marks in the single-sentence production task (20 marks), and she is considered as an advanced English proficient learner based on the English SPM result (A1) a MUET band 5. In her post-interview responses, this participant had admitted that her knowledge about prepositions and collocations before entering the DDL course was zero. Considering the fact that she had not been exposed to the language of the law either in the foundation in law programme or law content courses like diploma, she might have had difficulty in coping with the complexity of legalese in the beginning of semesters. In other words, having no exposure to legal education is potentially one explanation to this respondent's unsteady score in the two tasks.

Getting enough exposure to the legal convention and stylistic features may enable law students to increase fluency with the language of the law (Ahmad, 2009, 2011). Lewis (1993) contends that fluency precedes accuracy, and this indicates that before any L2 well-crafted chunks can be produced, it requires both of a learner's knowledge of form (accuracy) and production (fluency) of the L2. Fluency may not be acquired unless a learner knows about the linguistic conventions and styles of a language, shown immensely by a 'cascade' (Durrant, 2009) of collocational and colligational patterns. Considering the fact that different genres have different conventions and styles (Bhatia, 1998), knowing only the accuracy of texts might not be adequate for it is common to find that L2 university students are able to produce grammatically error-free sentences but most of them are non-native-like and inappropriate (Howarth, 1998; Krois-Lindner, 2006; Woolard, 2000). In the case of the students in the foundation in law's group, their advanced level of English proficiency may have expedited the acquisition of

prepositional patterns in which the transfer of their background knowledge of English (schemata) may have come into play (Ellis & Barkhuizen, 2007).

Besides, though that there has no consensus been reached yet among researchers on the relationship between general English proficiency and fluency (production of collocation), many have revealed the existence of a positive correlation between the production of collocation with learner competence or general English proficiency (see Al-Zahrani, 1998; Chang, 1997; Hsu, 2002; Koosha & Jafarpour, 2006). In the case of the foundation in law students, it can be claimed that the highest means achieved was related both to their general English competence and the previous knowledge of English communication and legal skills. The general English competence came basically in the store of prefabricated patterns or chunks of language the learners had which may have eased the retrieval and facilitated the learning of colligations of prepositions of the law of contract genre (Wray, 2002).

Table 4.20: A difference in individual DDL students' performance in relation to their previous education

	S I D	Eng. Prof		Gap Pre	Gap Post	Dif	Err Pre	Err Post	Dif	Mn g Pre	Mng Post	Dif	ntc Pre	Snt Pos	Dif	Ovrl Pre	Ovrl Post	Dif
		SPM	MUET	x /10	x /10		x /30	x /30		x /10	x /10		x /20	x /20				
Fnd. in Law	S1	A1	4	3	6	3	11	12	1	2	8	6	14	18	4	30	44	14
	S2	A1	4	5	6	1	14	16	2	2	6	4	16.5	20	3.5	37.5	48	10.5
	S3	A1	3	6	9	3	13	20	7	4	8	4	15	19	4	38	56	18
	S4	A1	3	4	5	1	11	16	5	4	6	2	17	18	1	36	45	9
	S5	A1	3	4	6	2	10	16	5	6	2	-4	14	20	6	34	44	10
	S6	A2	4	2	5	3	6	12	6	0	6	6	15	15	0	23	38	15
	S7	A2	3	4	4	0	14	14	0	2	8	6	16.5	17	0.5	36.5	43	6.5
	S8	A2	3	3	5	2	13	13	0	2	6	4	11.5	16	4.5	29.5	40	10.5
	S9	A1	3	6	8	2	16	18	2	0	6	6	15	17	2	37	49	12
Mean				4.1	6		12	15.2		2.4	6.4		14.9	17.8		33.5	45.2	
Dip. in Law	S10	B4	3	3	7	4	12	12	0	2	6	4	15	16.5	1.5	32	41.5	9.5
	S11	B4	3	2	5	3	11	14	3	2	6	4	15.5	15.5	0	30.5	40.5	10
	S12	B4	3	3	5	2	10	12	2	2	2	0	11	16	5	26	35	9
	S13	C5	4	5	8	3	10	13	3	4	6	2	13	14	1	32	41	9
	S14	C5	4	5	5	0	6	16	10	2	4	2	13	17	4	26	42	16
	S15	C5	3	2	6	4	8	15	7	6	8	2	13.5	16	2.5	29.5	45	15.5
	S16	C5	3	4	5	1	10	12	2	0	6	6	8.5	17	8.5	22.5	40	17.5
Mean				3.4	5.8		9.6	13.4		2.3	5.4		12.8	16		28.4	40.7	
S T P M	S17	A1	5	4	4	0	11	18	7	2	2	0	16	20	4	33	44	11
	S18	A1	4	2	4	2	7	13	6	4	8	4	15	16	1	28	41	13
Mean				3	4		9	15.5		3	5		15.5	18		30.5	42.5	
S T A M	S19	B4	3	3	2	-1	9	13	4	0	6	6	11	14.5	3.5	23	35.5	12.5
	S20	C5	3	3	6	3	11	13	2	0	4	4	13.5	18	4.5	27.5	41	13.5
Mean				3	4		9	13		0	5		12.3	14.8		25.3	38.3	

Note: SID (Students' Identification); SPM (Malaysian Certificate of Education); MUET (Malaysian University English Test); Gap Pre (Gap-filling Pretest); Gap Post (Gap-filling Posttest); Err Pre (Error Identification and Correction Pretest); Err Post (Error Identification and Correction Posttest); Mng Pre (Semantic Function Pretest); Mng Post (Semantic Function Posttest); Sntc Pre (Single-sentence Production Pretest); Sntc Post (Single-sentence Production Posttest); dif (score difference)

This section continues with the report findings on non-DDL group.

4.3.3.3 The Impact of Previous Legal Education on the Diploma in Law Students

Taking into account of the non-DDL groups' means, we may observe a rather interesting finding. The results in Table 4.21 indicated that the highest means of all the tasks of the posttest (except for the error-identification and correction) were acquired by the STAM's group (though it may be rather misleading since the means were based on only one student). The means of the diploma in law's group were the second highest, followed closely by the foundation in law's group (the third, except for the semantic function task) and the STPM's groups (the fourth, except for the gap-filling task). No stronger claims can be made however that the respondents' previous legal education had compelling impacts on the groups' knowledge of the form, meaning, and production of colligations of prepositions in this group based on the means alone.

However, by taking into account of the individual students' performance in the posttest, the results of the posttest tasks of the diploma in law's group seemed to outperform others. The highest overall scorer (S16), the second highest overall scorer (S11), and the highest scorer in the error-identification and correction task (S11) and single-sentence production task (S16) came from this group. Interestingly however, the lowest overall scorer (S14) was also from this group, and this explains the reason for the means of the posttest tasks to come second after the STAM's. Another situation requiring explanation is concerned with the highest decrease in score obtained by this group in the gap-filling task of the posttest. Three students (S11, S14, and S16) were found to score two marks lower than the score of the same task in the pretest. Surprisingly, however, S16 and S11 were the highest and second highest overall scorers in the non-DDL group. A dramatic decrease in score indicated by S13 in the single-

sentence construction task (-5) and a stable overall score in the posttest (35 marks in the pretest; 35 marks in the posttest) also requires some discussion.

Due to the fact that non-DDL students were not post-interviewed to uncover their perceptions, attitudes, and difficulties in learning prepositions in the non-DDL course, their responses were unknown. However, the fact that the students in the diploma in law's group were able to perform better in the single-sentence production task than in the gap-filling task can be explained in terms of the items selected for the test itself. As mentioned in Chapter Three, the sentences containing the words, for example, *binding*, *discussion*, and *reach*, had been used as the test items in the gap-filling task. They had been copied directly from the textbooks used as supplementary readings for the law programme in FLAIR, UniSZA. Though the students might have come across these sentences in reading, lack of noticing of the sentence structures and lack of knowledge about the pragmatic function and colligation (the prepositional words which come after the items) may have resulted in their failure to perceive the correct colligations of the target items.

4.3.3.4 The Impact of Students' Familiarity with the Nature of Legal Phraseology

The students in the diploma in law's group had been used to constructing legal sentences in their three-year diploma in law programme such as in writing assignments or essays in the tests and examinations. Though they lacked knowledge of what constitutes prepositions (based on the feedback obtained in the pre-study interview), their familiarity with the nature of the language of the law that contain longer stretches of words and complex structures had enabled them to succeed and perform better in the task.

It was also evident from the data that the foundation in law's group came second after the diploma in law except in the single-sentence construction task. This situation can be explained in terms of the groups' lack of familiarity with the law of contract genre. As mentioned before, the one-year foundation in law programme prepared the students only with English communication skills, in which no emphasis was given on legal contents. This was in contrast to the legal content courses (law of contract) that the diploma in law students had taken, in which the law of contract phraseology was something that they were familiar with. Since this group received little exposure to the law of contract phraseology and received fewer samples of prepositions (as they were placed in the non-DDL group), knowledge about the patterns did not improve significantly.

However, as we can observe, the foundation in law's group outperformed the diploma in law's group in the single-sentence construction and overall score of the posttest (see, e.g., S7). This deserves another explanation. This study was conducted when the respondents was in their third semester. In the second year of study, these students had already accumulated quite large legal vocabulary, and they had also acquired the mechanics of writing the problem question essay essential for their survival in the law programme. Knowing the fact that these students are advanced proficient learners of English (based on the SPM and MUET results), they were quick at acquiring legal terminologies and stylistic convention of legalese. Besides, in specialised subjects like law, presenting legal content in well-crafted legal sentences is very essential to guarantee success in any law programmes (see Beasley, 1994; Krois-Lindner, 2006), especially in answering problem question questions (Howe, 1990). They are expected to present law arguments following the convention or format of *ILAC* (Issue,

Law/Principle, Application/Argument, and Conclusion) and this strongly requires law students' competence in legal phraseology deemed necessary for their success in examinations and getting accepted by the legal 'discourse community' (Swales, 1990). This very fact had somehow pushed the subjects in this group to abide by the legal convention in constructing legal sentences in the beginning of the first semester in FLAIR.

Meanwhile, in terms of the groups' means of the posttest, the STPM group came fourth though it was evident from the table that this group still outperformed the diploma in law and foundation in law's groups in the gap-filling task. This compelling evidence has further revealed that the students with no exposure to legal education lagged behind in terms of learning a new knowledge like colligations of prepositions. Specialised discourses like law comprise "sequences of words [that] constitute preferred phraseologies" (Hunston, 2002: 143-144) called 'pattern flow' (Hunston & Francis, 2000) or 'collocation cascade' (Gledhill, 1995). This sequence of patterns will not be perceived and noticed except by those who have had the knowledge about the discourses before. To the students entering a new law programme, getting the basic knowledge of law is very essential for if they do not, the tendency for them to struggle in the very first year is very high.

Table 4.21: A difference in individual students' performance based on their previous education (non-DDL)

	S I D	English prof		Gap Pre	Gap Post	Diff	Err Pre	Err Post	Diff	Mng Pre	Mng Post	Diff	Sntc Pre	Sntc Post	Diff	Ovrl Pre	Ovrl Post	Diff
		S P M	M U E T	x /10	x /10		x /30	x /30		x /10	x /10		x /20	x /20		x /60	x /60	
Fnd in Law	S1	A1	4	3	2	-1	11	12	1	8	6	-2	17	18.5	1.5	39	38.5	-0.5
	S2	A1	4	4	6	2	11	14	3	3	5	2	17.5	17.5	0	35.5	42.5	7
	S3	A1	4	3	6	3	11	16	5	4	2	-2	16	17	1	35	41	6
	S4	A1	4	4	4	0	7	7	0	0	2	2	3	13.5	10.5	14	26.5	12.5
	S5	A2	4	5	5	0	8	11	3	4	6	2	16	17	1	33	39	6
	S6	A1	4	4	4	0	10	13	3	2	4	2	15	16	1	31	37	6
	S7	A2	3	1	2	1	7	14	7	0	4	4	6	17	11	14	37	23
	S8	A2	3	3	6	3	11	13	2	6	4	-2	11	16	5	31	39	8
	S9	A2	3	5	5	0	12	14	2	6	5	-1	14	16	2	37	40	3
Mean				3.6	4		9.8	12.7		3.7	4.2		12.8	16.5		29.9	37.8	
Dip. n Law	S10	B3	4	4	4	0	10	9	-1	2	4	2	16	16	0	32	33	1
	S11	B4	3	7	5	-2	11	18	7	4	4	0	13	16.5	3.5	35	43.5	8.5
	S12	B4	4	5	5	0	13	14	1	0	6	6	14.5	17	2.5	32.5	42	9.5
	S13	C5	3	4	4	0	13	12	-1	0	6	6	18	13	-5	35	35	0
	S14	C5	3	4	2	-2	10	12	2	0	2	2	6	9.5	3.5	20	25.5	5.5
	S15	B4	3	2	2	0	8	13	5	2	4	2	14.5	16.5	2	26.5	35.5	9
	S16	B3	4	6	4	-2	14	16	2	6	6	0	17	19	2	43	45	2
Mean				4.6	3.7		11.3	13.4		2	4.6		14.1	15.4		32	37	
S T P M	S17	1	4	4	3	-1	13	12	-1	4	6	2	10	16	6	31	37	6
	S18	1	3	6	5	-1	9	10	1	2	5	3	15	17	2	32	37	5
	S19	4	3	5	6	1	5	9	4	2	2	0	9	12	4	21	29	8
Mean				5	4.7		9	10.3		2.7	4.3		11.3	15		28	34.3	
S T A M	S20	A2	3	6	6	0	12	10	-2	4	6	2	14	17.5	3.5	36	39.5	3.6
Mean				6	6		12	10		4	6		14	17.5		36	39.5	3.5

Note: SID (Students' Identification); SPM(Malaysian Certificate of Education); MUET (Malaysian University English Test); Gap Pre (Gap-filling Pretest); Gap Post (Gap-filling Posttest); Err Pre (Error Identification and Correction Pretest); Err Post (Error Identification and Correction Posttest); Mng Pre (Semantic Function Pretest); Mng Post (Semantic Function Posttest); Sntc Pre (Single-sentence Production Pretest); Sntc Post (Single-sentence Production Posttest);diff(score difference)

To conclude, the study findings from the two groups have revealed to us that the students' background knowledge (their previous legal education) has significantly impacted on the students' knowledge of the form, meaning, and use of colligations of prepositions. And this increase in performance has also been spurred by their general English proficiency and familiarity with the complexity of the law of contract phraseology.

4.4 Summary

This chapter discusses the findings based on the data which had been analysed both quantitatively and qualitatively. The findings were presented sequentially based on the research questions posed in Section 1.5 of Chapter One. The study conclusions, the implications of the research on the existing knowledge and pedagogical practice, and the recommendations for future research purpose will be given in Chapter Five.

CHAPTER FIVE

SUMMARY FINDINGS AND CONCLUSION

5.0 Introduction

Colligations of prepositional patterns are very essential elements in legal discourse for they perform various pragmatic functions in legal texts (Leckie-Tarry, 1993, as cited in Ghadessy et al., 2001). These patterns are “the articulation of conceptual relations in legal discourse” (Jones & McCracken, 2006: 17), and they function as *referential*, *conative*, and *metalinguistic* (Thorne, 1997). Since specialised texts, including law texts have relations to the society or discourse community that shapes the knowledge, the pragmatic functions that prepositional patterns play would be *locative*, *manner*, *temporal*, *reason*, *causative* (Halliday, 1994; Halliday & Mathiessen, 2004), or *discoursal* functions (Halliday & Hasan, 1976). Failure to observe the functional role of prepositional patterns within a legal sentence structure in relation to other word groups may result in law students’ inability to identify the main message conveyed in the sentence (Mahlberg, 2006; Mkhathshwa, 2007). Besides, there is a possibility also that the entire sentence will be invalidated or rejected by a particular legal discourse community for failure to preserve ‘the generic integrity’ (Gozdz-Roszkowski, 2004).

Bahns and Eldaw (1993) and Brown (1974) state that collocations need special attention in EFL classrooms especially with the most problematic ones. The question is: If collocations should be explicitly taught, then what is the best teaching approach to teach collocations?

Data-Driven Learning (DDL) approach has been advocated as a good approach to teaching collocations since it has the potential to describe colligations of prepositions and their semantics and functions through repeated exposures to the patterns in much richer and authentic contexts (Durrant, 2009; Gaskell & Cobb, 2004; Koosha & Jafarpour, 2006). Many have also proposed that learners would learn best if the middle-ground position that DDL takes is implemented in order to reduce the students' cognitive burden.

As mentioned in Chapter One and elsewhere in this study, the purpose of this mixed-methods study is to examine the effectiveness of DDL approach in enhancing law students' knowledge of the form, meaning, and production of colligations of prepositions. This study attempts to prove Firth's (1957b) contextual theory of meaning and Vygotsky's (1978) socio-cultural theory (scaffolding). Firth's theory postulates that the meanings and functions of specialised languages, for example the language of the law, could be derived both from the linguistic environments which are repetitive and observable within the concordance lines (DDL) and the context of culture (the legal discourse community that speaks the language).

However, in the process of meaning making, learners always face challenges to construct meanings, thus requiring temporary 'scaffolding' and 'apprenticing' by teachers to facilitate the process before they are capable of doing the learning on their own.

This chapter will discuss the summary of findings, main conclusions drawn from the findings of the study, research implications, and finally recommendations for future

research. The findings in this study were culled from the pretest/posttest results, post-interview responses, and survey questionnaires.

5.1 Summary of Findings

This section discusses the summary of findings in relation to the research questions posed in Section 1.5 of this thesis.

5.1.1 Research Question 1:

How does exposure to DDL impact on the University of Sultan Zainal Abidin (UniSZA)'s law undergraduates' performance in colligations of prepositions?

This study has found that the seven-week exposure to DDL significantly impacted the DDL students' overall performance on colligations of prepositions. The overall scores of DDL students significantly outperformed those of non-DDL, and these significant findings were mainly related, among others, to intense exposure to a large number of legal prepositional patterns in the concordance lines which have provided opportunities for the learners to detect linguistic forms and meanings via a large amount of data. Celce-Murcia and Larsen-Freeman (1999) and Lewis (1997, 2000) concur that collocation errors, especially colligations of prepositions, are not easy to be explained except in a large number of contexts. These patterns cannot be detected easily unless learners are provided with a large sample of concordance lines in specialised corpora. Therefore, by giving a chance for the students to act as a 'language detective' (Johns,

1997a), the subjects in this study were able to indulge in the inductive learning process which had been foreign to them before.

Second, this significant impact also owes to the *Identify-Classify-Generalise* inductive learning technique introduced in DDL which had given an opportunity for the students to sharpen their detection skill. Finally, an emphasis given on collocation in the course allowed the students to detect the flow of patterns prevalent in legal texts which had not been noticed before.

This section continues with the response to the second research question of the study.

5.1.2 Research Question 2

To what extent does exposure to DDL influence UniSZA's law undergraduates' knowledge of colligations of prepositions in terms of

- a. form?
- b. meaning?
- c. production?

5.1.2.1 Research Question 2(a)

To what extent does exposure to DDL influence UniSZA's law undergraduates' knowledge of colligations of prepositions in terms of form?

The findings of the study have shown that DDL approach had significantly impacted on the DDL learners' knowledge of form (prepositional patterns). The DDL students' scores in the two tasks (gap-filling and error-identification and correction) have indicated a statistically significant result. The significant impact of DDL has been related to the massive inputs received by the respondents coming in the form of concordance data which had boosted their memory retention and eased the retrieval of the patterns in time of need. Second, the significant influence of DDL has been explained in terms of the 'form-focused instruction' (Ellis, 2006) introduced by DDL rather than a focus on forms (DeKeyser, 1998; Doughty & Williams, 1998; Laufer, 2006; Long, 1988; Ponniah, 2009), in which it had shifted the respondents' attention not only to the target patterns (form) cued by the KWICs in the concordance lines but also to the naturalness of the contexts such as legal settings themselves.

Third, even though the present study did not carry out a delayed posttest whereby the respondents' memory retention could be measured, it can be speculated also that the significant impact obtained was due to the emphasis given on learning prepositions through chunks (colligations) rather than on isolation (discrete prepositional items). This helped in boosting the respondents' memory retention due to the fact that the prepositional words learnt were stored as chunks, thus minimising the brain storage (Bram, 2005). By introducing the learners to the patterns of prepositions, DDL students were better able to notice the connective links or relationships between grammatical and lexical items (colligations) and to the fact that there is no separation between grammar and vocabulary.

Lastly, another factor leading to the learners' ability in performing well in the error-identification and correction task was related mostly to the resourcefulness of the concordance materials such as the DDL module (concordance printouts) and the online corpus - BNC for Law. The abundance of materials available had equipped the respondents to check their collocation errors easily. This has also reduced their anxiety or fear of trying out inductive tasks in the beginning of DDL course (Boulton, 2010a; Bourke, 1996; Hadley, 2002; Tian, 2005a; Yoon, 2005).

5.1.2.2 Research Question 2(b)

To what extent does exposure to DDL influence UniSZA's law undergraduates' knowledge of colligations of prepositions in terms of meaning?

The study found that exposure to DDL had significantly impacted DDL learners' knowledge of meaning (the semantic function) of colligations of prepositions. The significant influence owes greatly to the opportunity given to the DDL students; that is, a skill to guess the meanings and functions of colligations of prepositional patterns via detection of the repetitive concordance lines, as opposed to the supplied model sentences given by teachers in the traditional approach (Danielsson & Mahlberg, 2006). The students did this by studying the concordance lines, observing the patterns surrounding the prepositions, and drawing conclusions to the semantic-functions of the patterns. In addition to this, the assistance given to sharpen their guessing skills comes in two forms. The first is the specialised corpora (law of contract corpora), the LCC (compiled as concordance-printouts in DDL module) and the BNC for Law. Second, it comes in the form of the teacher-researcher who acted as the facilitator and contributed

largely to the students' significant improved performance in the determining semantic function task.

5.1.2.3 Research Question 2(c)

To what extent does exposure to DDL influence UniSZA's law undergraduates' knowledge of colligations of prepositions in terms of production?

The study found that there was no significant impact of DDL on the production of DDL students in the single-sentence writing. The non-significant impact was explained in terms of limited time factor. Nation (2001) contends that language fluency cannot be reached unless a student has an opportunity to practise with words in the production skills (speaking and writing) and to meet them frequently in contexts. It was found that the seven-week course did not prepare them with enough chance to practise, and even if it did, some of them might have not been able to transfer the receptive knowledge to the productive one.

Gaskell and Cobb (2004) maintain that the skill to self-correct and produce good sentences with correct patterns and grammatical rules does take a longer time frame. In fact, according to them, it may exceed to more than one school term. In other words, "...collocations do not cause a problem of perception (understanding) but that of production" (Gabrys-Biskup, 1992: 35). Thus, though no statistical difference was shown in the result of this task, it does not mean that DDL is not effective in enhancing the students' colligational performance. The students might have been able to acquire

the form and meaning of colligations of prepositions; however, the intake was still insufficient for uptake or production to take place (Lewis, 2000).

In addition, the two factors such as fossilisation, the state where no more changes to the patterns will take place even with extensive corrections (Ellis, 1994; Selinker, 1972), and that sentence writing involves not only a composition of language but also content and style (Harmer, 2001), were taken as some explanatory reasons for the students' lack of performance in the single-sentence writing task.

This section continues with the response to DDL and non-DDL's within-group performance in colligations of prepositions.

Though basically no research questions were posed to examine the within-group performance in this thesis, it was the intention of the researcher also to investigate the within-group's data in order to gain a complete picture of the students' performance in the pre and post DDL and non-DDL courses. The summarised findings are shown in Table 5.1 below:

Table 5.1: Summary findings of the DDL and non-DDL groups' performance

Components	Form		Meaning	Production	Overall Performance
	gap-filling	error-identification & correction			Overall score
Tasks			semantic function	single-sentence writing	
Within-group results (DDL)	significant impact	significant impact	significant impact	significant impact	
Within-group results (non-DDL)	no significant impact	significant impact	significant impact	significant impact	

This study has found that the two types of intervention (DDL and non-DDL approaches) had impacted the students' performance in the respective tasks. In the case of DDL students, their significant performances in the four tasks were related, among others, to the new teaching approach being introduced (guided inductive), an emphasis given by DDL on collocation teaching in which items are taught in patterns rather than in isolation, and increased noticing of the 'pattern flows' (Hunston & Francis, 2000) or collocation 'cascades' (Durrant, 2009) which are prevalent in legalese and impossible to be learned except in a large number of contexts.

In the case of non-DDL students, the significant impact obtained on the three tasks (error-identification and correction, semantic function, and single-sentence production) was related, among others, to the explicit teaching of prepositions itself. Even though non-DDL students were taught prepositions using the traditional teaching method, no specific teaching of prepositions for law had been conducted before with law students in FLAIR, UniSZA. The seven-week course conducted with the non-DDL students was their first time exposure to the course teaching prepositions in legal contexts. This very reason has contributed to their sound performance in the tasks.

Despite all that, this study has found that there is no significant difference in the gap-filling score of the non-DDL group. A significant difference was observed, however, in the error-identification and correction task. Due to this mixed results, it was concluded that non-DDL approach did not significantly influence the non-DDL group's performance in the knowledge of form. This was related to many factors, and these include:

- **Lack of exposure to the contexts of preposition**

Prepositions are the toughest grammatical items to be acquired even with advanced ESL learners. Prepositions have both lexical and grammatical functions. They have the tendency to be free or bound. When they are bound, they rely on their colligations to give meanings. Colligations of prepositions cannot be easily determined unless in a large number of contexts, for example the concordance lines. Since the students in non-DDL group were exposed to small samples, they had difficulty in guessing the right colligates of prepositions.

- **Lack of guessing skill**

The students in the non-DDL group had been exposed to a limited number of prepositional instances in each unit of non-DDL module. They were not taught the skill to generalise and deduce rules of the target prepositions in the course. This lack has resulted in their memory retention deficits and slow retrieval of prepositions when needed especially in answering the questions in the posttest.

- **Prepositions were taught in isolation rather than in patterns.**

The non-DDL learners were taught prepositions in isolation (as discrete items) rather than by their colligations despite suggestions given by Bahns and Eldaw (1993) and Brown (1974) that collocation teaching should not be neglected in EFL/ESL classrooms. Though the made up samples given consisted of law of contract sentences, the students still suffered from a deficit in the actual usages of the target prepositions.

Knowing the fact that prepositional items and patterns in legal discourse are interrelated and they constitute the construction of knowledge in law of contract discourse, being deprived of the knowledge of colligations of prepositions resulted in their lack of performance in the posttest.

This section continues with the response to the third research question of the study.

5.1.3 Research Question 3

What are the factors which influence the students' knowledge of the form, meaning, and production of colligations of prepositions?

Based on the three major sources of data collected, post-interview responses, survey questionnaire responses, and analysis of the individual students' performance in the pretest/posttest in relation to their previous legal education, this study explored the factors impacting the DDL students' performance in the three related components - form, meaning, and production. The summarised findings are presented based on the post-interview responses, survey questionnaire responses, and individual students' performance in relation to the previous legal education.

5.1.3.1 Post-Interview Responses

This section summarises the study findings based on the responses given in the post-interview.

5.1.3.1.1 The Effectiveness of DDL

The subjects responded that DDL had improved their knowledge of the form, meanings, and actual usages of legal English sentences. DDL increased their knowledge of prepositional rules and the inductive learning activities helped them become more independent students.

5.1.3.1.2 Insufficient Time to Absorb Preposition Rules

Even though the respondents confessed that DDL helped improve their knowledge of prepositional rules, semantic functions, and actual usages of colligations of prepositions, the seven-week experimental course was considered not long enough for them to absorb the new preposition rules learned.

5.1.3.1.3 Increased Noticing Skill

The students also informed that their reduced errors in the error-identification and correction task were influenced by an increase in the noticing skill. The students managed to identify the right colligations of prepositions and their errors owing to the focused activities devoted to this task in the module.

5.1.3.1.4 Increased Awareness of Prepositional Patterns

The subjects informed that DDL helped increase their awareness of the different meanings and usages of colligations of prepositions. DDL improved their noticing skill through intense exposure to the concordance lines.

5.1.3.1.5 Increased Awareness of Collocations

The subjects responded that DDL helped increase their knowledge of collocation (colligations of prepositions). This was achieved through noticing and explicit teaching of collocation that was conducted in the DDL course.

5.1.3.1.6 Difficulty with the Semantic Function Task

Some respondents admitted that they had difficulty in guessing the right meanings of prepositional patterns. Therefore, to some of them, the semantic function task was the hardest one.

5.1.3.1.7 Motivating and Inspiring Task

Though some students considered guessing the meanings (semantic functions) from contexts was the hardest task, some of them admitted that this task was a very motivating one.

5.1.3.1.8 The Impact of Previous Legal Education

The students who had a degree in diploma in law students admitted that their previous legal education helped improve their single-sentence production. The practice given in the module was very similar with one they had done in the Law of Contract classes.

5.1.3.1.9 Easier Tasks

While some students considered the semantic function task as the hardest, some of them found the gap-filling and error-identification and corrections as easier tasks.

5.1.3.1.10 Persistent Difficulty with Some Patterns

The subjects also responded that they still had persistent difficulty with some patterns, for example *binding on*, *bound by*, *bound to*, and *approval from*. These patterns are the combination of semi-technical or technical vocabulary with prepositions.

5.1.3.1.11 Preference for Traditional Materials

Though DDL was found effective, some students did not totally confide in the concordance lines in doing the tasks. They still referred to the dictionary, and even mentioned that looking for words in the dictionary was much easier.

5.1.3.1.12 Difficulty in Understanding Cut-off Concordance Lines

The students responded that cut-off concordance lines were hard to be understood. They were baffled with the concordance data during the meeting with them. However, the confusion started to recede after they underwent several sessions of the DDL course.

5.1.3.1.13 Inclusion of DDL in the Law Syllabus

The students anonymously were in agreement that DDL should be included in the law syllabus to complement teaching of the subject content and ELAP (if they are

established at FLAIR). They decided that DDL would be an effective tool to check their linguistic errors in essays and assignments.

5.1.3.2 Survey Questionnaire Responses

This section summarises the study findings based on the responses given in the survey questionnaire.

5.1.3.2.1 Preference for DDL to the Traditional Method

A majority of the students responded that they preferred DDL to the traditional method of teaching preposition. This was explained in terms of their getting exposure to larger prepositional contexts given in the DDL course to few and made-up samples given in the traditional instruction obtained in the primary and secondary schools.

5.1.3.2.2 Preference for Online DDL to Concordance Printouts

A majority of the respondents, however, responded that they preferred referring to online DDL to paper-based concordance lines in the module. This was explained in terms of direct-computer use and a larger number of concordance lines available in the BNC for Law online than those presented in the DDL module. Teacher-edited concordance samples (in DDL module) did not equate the larger samples available online in the BNC for Law.

5.1.3.2.3 Preference for an Early Teacher Intervention

A majority of the respondents agreed that teacher should intervene in the beginning of DDL course to scaffold their learning.

5.1.3.2.4 Teacher as the Sole Knowledge Provider

The respondents placed more confidence and trust in teacher as the knowledge provider to corpus data. This was explained in terms of the traditional teaching method they had been used to which placed a greater role on teacher as the sole knowledge provider to other teaching materials.

5.1.3.2.5 Multiple Affordances of DDL

The respondents were in agreement that DDL could assist them in many ways, for example in checking their grammar errors such as prepositions, collocation, and meaning.

5.1.3.2.6 Lack of Difficulties with Corpus Use

A majority of the respondents did not consider corpus use as a major problem. This was explained in terms of the guided tasks (scaffolding given in the module) and teacher intervention (facilitating learning throughout the course).

5.1.3.2.7 The Effectiveness of DDL in ESP Instruction

Almost all students were in agreement that DDL had benefitted them a lot in teaching grammar and preposition in the law of contract context. This can be explained in terms of the absence of such kind of teaching given to law students in FLAIR, UniSZA.

5.1.3.2.8 The Potential of DDL

DDL has a lot to offer. The respondents agreed that DDL had the potential to improve their academic success. This can be explained in terms of the DDL's potential in improving their knowledge of colligations of prepositions used frequently in the law of contract texts.

5.1.3.3 The Impact of the Previous Legal Education

This section summarises the study findings based on the individual students' performance in the pretest/posttest in relation to the previous legal education.

5.1.3.3.1 The Impact of Previous Legal Education on the Foundation in Law Students in the DDL Group.

The previous legal education obtained by DDL students who attended the foundation in law programme had impacted significantly on each of the students' performance in the knowledge of the form, meaning, and use of colligations of prepositions in the posttest. This significant improvement was explained in terms of the students' general English proficiency. These students were regarded as advanced learners of English (based on SPM results and MUET). This factor led to their quick absorption of the new knowledge taught - colligations of prepositions.

5.1.3.3.2 Lack of Schemata Reduces DDL Students' Acquisition Rate of Legal Phraseology

No significant improvement was found in the individual students' performance of the STPM and STAM's groups in the DDL group, the students who had no legal education background. The absence of prior legal knowledge did not improve significantly of the individual students' performance in the posttest tasks. This was explained in terms of the students' lack of schemata of the phraseology of the law of contract.

5.1.3.3.3 The Impact of the Previous Legal Education on the Diploma in Law Students in non-DDL Group

The previous legal education obtained by the diploma in law students in non-DDL group had impacted significantly on each of the students' performance in the knowledge of the form, meaning, and production of colligations of prepositions in the posttest. This significant improvement was explained in terms of the students' familiarity with the nature of legal English phraseology itself that contain longer stretches of patterns.

5.1.3.3.4 Lack of Schemata Reduces non-DDL Students' Acquisition Rate of Legal Phraseology

No significant improvement was found in the individual students' performance of the non-DDL STPM's group, the students who had no legal education background. The absence of prior legal knowledge did not improve significantly of the individual students' performance in the posttest tasks. This was explained in terms of the students' lack of schemata of the phraseology of the law of contract. Interestingly, however, the

means of the STAM's group outperformed the other groups' means. This was explained in terms of a misleading calculation. The group's mean was based on a respondent's task score as the group consisted of only one respondent.

5.2 Conclusions

This section of the chapter will discuss the main conclusions drawn from the findings of the study. It is apt at this juncture to reintroduce the research objectives posed in Section 1.4 in order to demonstrate that the conclusions drawn have validated the objectives of the study:

1. To investigate the extent to how much exposure to DDL impacts on the University of Sultan Zainal Abidin (UniSZA)'s law undergraduates' performance in colligations of prepositions.
2. To examine the extent to how much exposure to DDL influences UniSZA's law undergraduates' knowledge of colligations of prepositions in terms of
 - a. form;
 - b. meaning; and
 - c. production.
3. To explore the factors which influence the students' knowledge of the form, meaning, and production of colligations of prepositions.

5.2.1 Conclusion 1: The Impact of Task Types, Previous Legal Education, and General English Proficiency

This study has found that DDL is an effective approach. DDL was shown effective in improving the law students' performance in the form and semantic functions of prepositions despite little improvement in the single-sentence production task. The efficacy of DDL relies on its large number of authentic materials prepared for the students (DDL module) comprising the concordance printouts and the two specialised corpora (LCC and BNC for Law online), and the opportunity given to them to experience an inductive learning process.

DDL also has multiple affordances. It can be employed to detect multiple data, be it collocation, vocabulary, grammar, or specific discourse types. DDL was even reported by the respondents in this present study as an approach capable of transforming them into becoming more independent and responsible for their own learning. Furthermore, the efficacy and efficiency of DDL was also related to the middle-ground position that this study has taken, a combination of deductive ('soft' or 'indirect') and inductive ('hard' or 'direct') approaches. The integration of the two types of DDL has reduced learners' cognitive burden in deducing the rules and locating the semantic-functions of the patterns from the raw data.

However, despite all the potentials and positive side of DDL, the effectiveness of DDL is relative to some factors, for example task types, learners' previous legal education, and general English proficiency. In terms of task types, for example, the finding has shown that DDL students did not improve significantly in all tasks. No significant improvement was observed, for example, in the single-sentence production task. Tian's

(2005a) and Yoon & Jo's (2014) earlier DDL findings also construed that task types did influence learner success with DDL. The respondents in Tian's (2005a) for example, performed significantly well in word usage and distinctive features of text types but not in grammar.

As discussed in the preceding section of this chapter, the respondents' previous legal education significantly impacted individual students' performance in the three related components of prepositions - form, meaning, and production. We may also realise that the legal phraseology is complex and lengthy (Danet, 1990; 1985), and it is less possible for law students to acquire it in a short period of study. Legal phraseology contains interrelated patterns called 'pattern flow' (Hunston & Francis, 2000) which is not easily noticeable unless students' awareness of the patterns is raised. Though law students might be able to learn the patterns implicitly, for example via reading, the acquisition of legal phraseology via this method often takes a longer time period (Hargreaves, 2000; Nation, 2001). The students who have the previous knowledge of legal English phraseology before attending any law programme are at a great advantage in a DDL course because it would make the process of learning legal phraseology much easier due to intense exposure to a large amount of data. In fact, it is postulated that the longer the content subjects are learned, for example law, and the more the content knowledge of specialised subjects is acquired, the higher the chances law students might get to succeed in the law programme (Ahmad, 2009, 2011).

Furthermore, the findings of the study also show compelling evidence that the general English proficiency of the respondents and their previous legal education correlated rather closely with individual's performance in the tasks, suggesting further research in

this area. Advanced learners of English basically have obtained a higher level of English competence, and this is indicated in the store of prefabricated patterns or chunks of language the learners have had which may have eased the retrieval and facilitated the learning of colligations of prepositions of the law of contract genre (Wray, 2002). Though Boulton (2007a, 2007c, 2010a), Chambers (2005, 2007a, 2007b), Rapti (2013), and Yanhui (2008) have argued that DDL works effectively with the lower and intermediate proficient learners of English, the present study has found that the respondents' advanced English proficiency in the second language has partly contributed to learner success with DDL.

To conclude, this study has uncovered the three factors impacting acquisition of colligational competence of the subjects in this study - task types, general proficiency of the second language, and the previous legal education. The researcher therefore suggests that the model conceptualising DDL in ESP, for instance legal context as reflected in Figure 1.1 below should include these three contributing factors. In future studies involving larger samples, these three factors can become the intervening variables (Creswell, 2008).

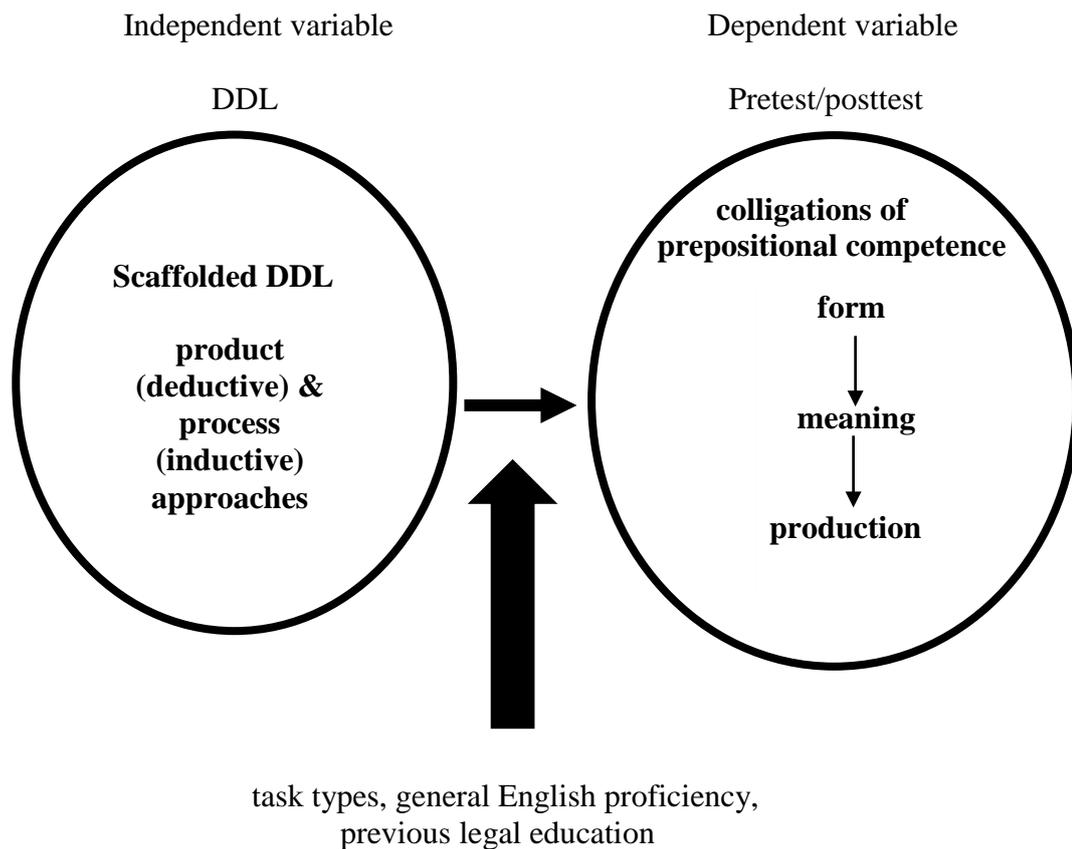


Figure 5.1 Conceptualisation of DDL approach in legal context

5.2.2 Conclusion 2: Scaffolded DDL is Truly DDL

This study has found that scaffolding helps improve DDL students' performance in the knowledge of the form and meaning of colligations of prepositions but not in the single-sentence production. Maybe one of the factors affecting the respondents' success in the DDL course in the three components is the implementation of scaffolding (assistance). The assistance comes in the form of guided tasks that guided DDL activities in the DDL module coupled with the teacher-researcher's intervention throughout the course. Scaffolding as used in the present study is different from the full scaffolding implemented in the non-DDL approach. This type of scaffolding, in contrast to the full one, had supported the inductive learning process in the DDL course. This kind of

assistance has gained the students' recognition when they responded that DDL had transformed them to become more independent and responsible for their own learning. Lee and Liou (2003: 49) even suggest that "...the main advantage of the DDL approach is that it encourages students to take responsibility for their language learning".

Scaffolding is a teacher strategy to assist learners to make sense of difficult tasks. The strategy comes in the forms of challenge and support (Walsh, 2006). A teacher provides the amount of challenge to maintain learner interest, motivation, and involvement, whereas the support is given to ensure students' understanding of tasks. Scaffolded support recedes once a learner "can internalise external knowledge and convert it into a tool for conscious control" (Bruner, 1990: 25).

DDL is an inductive learning approach. However, the approach taken in this study was an integrated one, taking a middle-ground position which utilises the strength of the product (deductive) and process (inductive) approaches rather than fully deductive (guided) and autonomous (independent) approaches. As a constructive learning approach, it requires more of learners' higher order thinking skill in order to construct knowledge in the course. This group of DDL students had to adopt the *Identify-Classify-Generalise* technique (Johns, 1991a), a problem-solving process required of them before DDL learning can become successful. To the first time users of DDL, as in the case of the students in the present study, the scaffolded DDL approach which makes use of concordance printouts and teacher-made specialised corpora is considered as a grand solution to reduce their cognitive burden. This approach also relieves their burden particularly in generalising and deducing the rules and semantic functions of prepositional patterns from the concordance lines. Many have treated DDL as direct

corpus consultation, not as the scaffolded DDL approach even though the true spirit of DDL scaffolded DDL (Boulton, 2012). It was also the original plan of the founder of DDL - Tim Johns (1991a, 1991b, 1993).

5.2.3 Conclusion 3: Some Patterns are More Difficult to be Acquired than Others.

Prepositional patterns are difficult to be acquired even with advanced learners of English (Celce-Murcia & Larsen-Freeman, 1999; Mukundan & Norwati, 2009). There are two types of prepositions – simple and complex. Simple prepositions are further divided into three types: (1) the combination of single-word prepositions with technical vocabulary, for example *in consideration of*, *in the case of*, and *the approval of*; (2) the combination with academic (semi-technical) vocabulary, for instance *related to*, *evidence of*, and *persistent to*, and (3) the combination with common words which have become specialised in legal discourse, for example *agree with*, *come to*, and *enter into*. Meanwhile, complex prepositional phrases are fixed phrases such as *in pursuant of*, *in accordance with*, and *on the basis of* that contain only a single meaning. These two types of colligations function as the construction of knowledge in specialised disciplines (Halliday et al., 1966, 1967a, 1970b, 1975; Matthiessen & Halliday, 1997) including legal discourse.

Meanwhile, colligations of prepositions are essential elements in legal texts since they perform various pragmatic functions. They function as the construction of knowledge (Halliday et al., 1966), and “...the articulation of conceptual relations in legal discourse...” (Jones & McCracken, 2006: 17). They also function as *referential* (to convey information), *conative* (persuasive and regulatory), and *metalinguistic* (discussing the language itself) (Thorne, 1997). Some linguists, for example Gozdz-

Bhatia, 1998), Durrant (2009), and Roszkowski (2003) state that complex colligations of prepositions perform *textual* (text organisers) and *referential* functions. The examples of text organisers include *in accordance with*, *subject to the provision*, and *pursuant to section X*, and some examples of *referential* function include *in reference to*, *in the presence of*, *for the benefit of*, and *on the part of*. To conclude, colligations of prepositional patterns play essential functions in legal texts both as textual coherence and cohesion and the construction of knowledge (Bhatia, 1993). The sequence of legal events is constructed through the chaining of colligations of prepositional patterns.

However, to acquire prepositional patterns and understand their functions is not an easy task. Based on the post-interview responses, the students mentioned that some patterns are difficult to be acquired than others. These patterns are the combinations of semi-technical and technical vocabulary with prepositions, for instance *binding on*, *bound by*, *bound to*, *approval from*, *approval on*, and *provide for*, not phrasal verbs such as *come to*, *look into*, and *enter into*. This study has then concluded that exposure to DDL in the seven-week course is insufficient to compensate for the students' lack of knowledge about those patterns.

Semi-technical and technical words are free words which bear semantic contents. To law students, their difficulty with these patterns - *binding on/upon*, *approval of*, and *aware of*, may likely be caused by their difficulty in guessing the different meanings of patterns when prepositions change their form; that is, from *of* in ***approval of*** to *from* in ***approval from***. On the other hand, phrasal verbs are not very problematic to the students since these patterns are frequently used in legal texts and their meanings are

fixed. They do not change meanings despite a change in tenses. Due to the fact that these prepositional patterns - *binding on*, *bound by*, *bound to*, *approval from*, *approval on*, and *provide for* are essential to be acquired in the law of contract texts since they constitute the most frequent words in the LCC and BNC for Law corpora, it is imperative that a considerable number of these patterns be acquired.

5.2.4 Conclusion 4: Producing Well-Crafted Legal Sentences Requires more than the Bottom-up Approach.

DDL has multiple affordances (Boulton, 2010c, 2011a, 2011d, 2012c; Hafner & Candlin, 2007). It helps in the creation of course syllabi and teaching materials for ESP courses (Gavioli, 2005; Nesselhauf, 2005; Römer, 2008), and it assists ESP learners with the first-hand experience of corpus-search in DDL classroom. Several researchers, for example Bernardini, Baroni, and Evert (2006), Flowerdew (2002), Fuentes (2000, 2001), Hafner and Candlin (2007) claim that corpus has brought to light a new revolution in ESP in terms of providing a large amount of data to learners which represent the actual usage uttered by the discourse community. DDL is a bottom-up approach and it has acclaimed advantage in detecting, for example, collocations of specialised discourse, semantic functions of words and patterns, or linguistic errors made by ESP learners particularly in their academic essays (Fajans, 1997).

This study has found that the seven-week exposure to DDL in the experimental course was effective in improving the knowledge of the form and meaning of collocations of prepositions of the law students. However, no significant impact was shown in the single-sentence production of the students. It was concluded therefore that the

acquisition of single-sentence production does take a longer time frame, and the transfer of linguistic knowledge into production is not an automatic process.

DDL is a bottom-up skill. Students are trained to perform DDL tasks and to solve linguistic problems via detection of a large amount of concordance data. In some exploratory DDL studies involving learners' success with corpus search in writing, the bottom-up skill can be observed in DDL activities involving error detection, for example in checking correct usages of grammar, appropriate word-choice, or accurate selection of collocation (see Gaskel & Cobb's, 2004; Yoon's, 2005). Lack of sufficient time given may hinder the effectiveness of DDL in supporting students' writing process since production skill like writing often requires a longer time period to succeed - more than one school term (Ene, 2006; Gaskel & Cobb, 2004). Lack of competence in grammatical structures such as tenses, subject verb agreement, and articles may have also influenced the accuracy of single-sentences produced by the study respondents in this task.

In specialised fields like law, producing well-crafted essays requires more than the knowledge of patterns at micro-linguistic level (Bhatia, 1988; Engberg, 2009; Flowerdew, 2009). Law students have to follow the right format of writing legal essays, the *ILAC* (Issue, Law, Application, and Conclusion), referring to the necessary moves in problem question essays. They also have to understand the many different genres of law, for example law of contract, law of torts, and constitutional law (Bruce, 2002). Considering the fact that different moves of *ILAC* require specific transition signals and different lexico-grammatical patterns (Bhatia, 1993; Candlin et al., 2002), knowing about the macro-linguistic properties of law (the patterns which are used

beyond the sentence level) is highly necessary besides learning the micro-linguistic properties of legalese (lexico-grammatical patterns within the sentences). Furthermore, due to the fact that colligations of prepositions in legal texts are interrelated; that is, they cohere in unity with those in the same sentences and other sentences within a paragraph (Halliday & Hasan, 1976, 1985; Halliday & Martin, 1993; Halliday & Yallop, 2007), presenting cut-off concordance lines to law students to improve their writing performance is another limitation of DDL. ESP learners who are introduced to cut-off concordance lines for the first time might be baffled and unable to successfully perceive the ‘pattern flow’ (Hunston & Francis, 2000) or ‘psychological relationship’ (Durrant, 2009) of patterns within incomplete sentences (VanPatten, Williams, & Rott, 2004). The macro-linguistic properties of specialised discourses such as moves or transition signals are not effectively taught using the bottom-up approach (Bhatia, 1998; Flowerdew, 2009).

5.2.5 Conclusion 5: Explicit Teaching of Preposition May Reduce Law Students’ Linguistic Deficiency.

The results of the study have revealed that the two groups’ (DDL and non-DDL) performances in some of the posttest tasks improved significantly. The students’ significant performance was explained in terms of explicit teaching of prepositions and prepositional patterns given to DDL students and prepositions only to non-DDL students. This study has concluded that explicit teaching of prepositions and their patterns has reduced the law students’ lack of knowledge in the form and patterns of prepositions.

For the past two decades, many linguists and teaching practitioners have expressed concerns about whether grammar and vocabulary should be taught explicitly (formally) or implicitly (informally) (see Ellis, 2001, 2005, 2006, 2008b; Nation, 2001, 2005). Explicit teaching or ‘form-focused instruction’ as practised in DDL direct learners’ attention to the target forms in the concordance lines. The target forms or searched words are usually placed in the middle as the KWICs. It is postulated that given intense exposure to repetitive and a large amount of concordance data, students’ noticing and awareness of the searched patterns will increase. The traditional (deductive) approach as implemented in the non-DDL group is a fully explicit (guided) teaching approach. In scaffolded DDL, however, explicit teaching is not fully but rather temporary. It aims at facilitating the inductive learning process. In a fully explicit teaching approach, teacher plays the main role in directing the students’ attention to the target form under study.

Legal phraseology has been acquired by law students rather implicitly (informally) via exposures to, for instance, lectures or legal reading materials (Harris, 1997). However, based on the pre-interview responses gathered, some students even did not know what constitutes prepositions. The two courses (DDL and DDL) conducted in the present study can be considered as the first ones which taught prepositions and colligations explicitly to the law students. To conclude, explicit teaching may give a significant impact on ESP students’ knowledge of the forms and meanings. It can also expedite acquisition of legal phraseology essential in the development of law students’ colligational competence.

5.2.6 Conclusion 6: Teaching Prepositions in Isolation Deprives of Learners' Skill of Guessing Meanings through Contexts.

Based on the DDL students' post-interview responses, the study has found that determining the semantic function task was the toughest one even though some of them found this activity rather motivating. This study has also found that the students in the non-DDL group did not perform significantly better in the determining semantic function task, and this was related mainly to their lack of ability in guessing the right meanings due to lack of exposure to sufficient contexts. It was concluded therefore that teaching prepositions in dense context will deprive of ESP learners' competence in determining the right meanings of domain specific phraseology (Brown, 1987, 2000; Essberger, 1997) such as legal phraseology (Akmajian, 1995; Alcaraz & Hughes, 2002; Bruce, 2002; Mellinkoff, 1963).

One of the main reasons to study the linguistics of a particular language is to know the meanings of the language (Firth, 1957b). Achieving colligational competence of a specialised discourse is very essential in order "to increase the learners' potential to command special languages" (Fuentes, 2001: 106). Since to know one's language is to know the phraseology of the language (Francis, 1993), and to attain complete competence of phraseology (collocation) of a language is to know the accuracy of the form and meaning and to gain fluency of the language (Lewis, 1993), it is very essential for ESP learners like law to gain complete knowledge of the meaning of the language of the law. The semantics (meanings) of prepositions are not easily determined except when they are learned in massive contexts (Celce-Murcia & Larsen-Freeman, 1999; Essberger, 2009; Mukundan & Norwati, 2009). Therefore, by introducing prepositions in dense contexts and made-up samples, it has actually deprived of the learners' skill in

guessing the right meanings of prepositions, a very essential skill for their survival in academic world.

5.3 Recommendations

The following section provides recommendations based on the findings and conclusions.

5.3.1 DDL should be introduced in ESP Courses.

DDL is a ground-breaking approach that affords teaching and learning in various ways (Rapti, 2013) particularly in ESP context. DDL enables ESP teachers in the creation of course syllabi and teaching materials for ESP courses (Bowker & Pearson, 2002; Chambers & Kelly, 2004; Gavioli, 2001, 2005; Nesselhauf, 2005; Römer 2005a). DDL also enables ESP learners to experiment with data derived from specialised corpora.

This study has found that DDL is effective in improving the knowledge of the law of contract phraseology among semester three law undergraduates in FLAIR, UniSZA but not in the sentence production. The students came from various educational backgrounds (legal or non-legal), and their previous legal education had determined success with DDL and non-DDL approaches in this study. Even though basically the students had met the basic entrance requirements of FLAIR; that is, they obtained a MUET band 3 and a C5 in English subject in SPM, a varying level of general English proficiency among them (from intermediate to advanced) could still be observed. This study has concluded that the effectiveness of DDL in specialised

context like law depends a lot on some other factors including task types, previous legal education, and general English proficiency.

DDL is highly recommended to be included in any institutions offering law programmes in Malaysia and internationally as it has the potential to improve phraseological competence of students with specialised languages (Gozdz-Roszkowski, 2004). ESP practitioners teaching students with specialised courses, for example law courses, can now observe that students should not be left alone to acquire the patterns without any guidance, especially those who are used to the traditional teaching approach for so long. Law students definitely need ESP experts to increase their awareness of colligations of prepositions, one of the most essential features in legal texts (Bhatia, 1993; Gozdz-Roszkowski, 2004; Jones & McCracken, 2006). Though some may have had the opinions that law students are advanced learners and they could do the study on their own, this perception is definitely wrong. Law students may be able to memorise and learn the patterns and phrases through implicit exposure to them in legal reading materials or lectures but the teaching experts can do more to help them. They may expedite the rate of acquisition of colligations of prepositions of the students much faster, for example through repeated exposure to these features in practices and exercises.

However, some considerations need to be taken to ensure an effective implementation of DDL in any law programmes. First, with regard to varying levels of language ability of law students entering law programmes, students should also be grouped based on learners' language ability in the DDL course (Boulton, 2009b; Tyne, 2009b). This is particularly true since DDL activities often place a lot of demand on students' higher

order thinking skill and this requires more of students' background knowledge (Carrell, 1983; 1987; Carrell & Eisterhold, 1983) of general or specialised languages like law. Ignorance about this issue may hinder learners' success with DDL.

Second, producing well-crafted legal essays requires more of law students' time and efforts. Considering the fact that success with DDL in writing may take more than one school term (Gaskel & Cobb, 2004), it is highly necessary that DDL is included in ELAP programmes and law syllabuses. This can be accomplished since DDL is a methodology (a tool to assist learning) rather than a theory (McEnery et al., 2006). Finally, the finding has revealed that producing well-crafted legal sentences requires more than the accuracy of patterns. Law students must possess the knowledge of grammatical structures such as tenses, articles, and subject-verb agreement, and they also need to gain complete mastery of macro-linguistic properties of language, for instance moves, genres, and discourse markers that operate beyond the sentence level (Canagarajah, 2002; Carkin, 2005). This is essential as legal patterns are inter-related and the 'pattern flow' (Hunston & Francis, 2000) can be seen not only within a sentence but also in other sentences within a paragraph.

5.3.2 Scaffolded DDL should be Introduced to First Time Users.

As mentioned in the conclusion section, one of the factors impacting the respondents' success in the DDL course is the implementation of scaffolding (assistance). Scaffolding comes in the form of guided tasks that directs DDL activities. Scaffolding also comes in the form of teacher support that facilitates DDL learning process. Scaffolding as used in the present study differs from the fully guided approach (teacher-centred approach) implemented in the non-DDL approach in a sense that it facilitated

the inductive learning process in the beginning of DDL course. This kind of assistance was much welcome by the respondents when they mentioned that DDL had transformed them to become more independent and responsible for their own learning. Considering the fact that first time DDL users often face challenges in performing DDL (inductive) activities, scaffolded DDL is a promising approach to turn to especially to reduce their cognitive burden. Their confusion and bafflement in facing a large amount of concordance data presented before them can be reduced this way by preparing paper-based concordances which can tailor to their specific learning needs.

5.3.3 Legal Colligations of Prepositional Patterns should be Explicitly Taught.

This study has shown to teachers and ESP practitioners that colligations of prepositions should be explicitly taught in order to improve colligational competence among ESP students (Cortes, 2004; Craig, 2008; Mair, 2002; Marco, 2000; Master, 2005) like law (Hafner & Candlin, 2007). These patterns are essential to be acquired for they constitute “a system of preferred expressions of knowledge” (Cowie, 1998; Melcuk, 1998; Stuart & Trelis, 2006: 239), for example in legal academic and professional worlds (Bhatia, 1993; Cotterill, 2003; Davie, 1982; Davies, 2003; Denning, 1979; Candlin et al., 2002; Kjaer, 2007; Kopaczyk, 2008; Tiersma, 1999; Williams, 1982; Woolever, 2006). Considering the fact that acquisition of patterns via implicit learning may take a longer time frame (Gaskel & Cobb, 2004), these patterns should be learnt explicitly. Many scholars have proposed explicit teaching of collocations to the learners of English (see Bahns & Eldaw, 1993; Brown, 1974; Lewis, 1997, 2000; Nesselhauf, 2005; Pawley & Syder, 1983). They assert that learners’ awareness of

colligational features especially those that are troublesome could be raised this way (Santos, 1988; Schmidt, 1990).

5.3.4 Prepositions should be Taught in Contexts.

As mentioned elsewhere in this study, though prepositions are traditionally assigned as function words or a closed system, preposition is a controversial part of speech, partly due to its ‘hybrid’ or ‘semi-lexical’ (grammatical and lexical) functions (Laufer, 1997; Lindstromberg, 1998; Littlefield, 2006, 2011; Sicherl, 2004). Some prepositions, unlike other function words such as articles or quantifiers, have been considered as taking a lexical category (Grimshaw, 1991) and bearing semantic contents (Rauh, 1993, as cited in Littlefield, 2011). In fact, Bordet and Jamet (2010) assert that not only complex prepositions such as *instead of*, *in view of*, or *in ignorance of* bear the semantic functions or meanings, but also do simple prepositions, for example *about*, *to*, *above*, *at*, *in*, and *on*. Halliday (1994) also claims that all prepositional phrases including the nominal groups containing preposition *of* do have functions. Considering the fact that prepositions and their functions cannot be easily determined unless they are presented in massive contexts, the drilling approach to teaching prepositions should be changed.

Many have found faults with traditional approaches for teaching prepositions in dense contexts, and learners are drilled to memorise and reproduce them as fluently as possible in inauthentic contexts (Mukundan & Norwati Roslim, 2009). But we may have also observed the emergence of traditional approaches in this recent decade which replace the communicative approach. The communicative approach has been claimed as capable of producing learners who can communicate fluently but with inaccurate

grammar (Richards, 2006). In the traditional approach, teacher is still highly valued as a good knowledge provider, and students have found it hard to trust other methods or teaching materials which replace a teacher's position.

This study began with a preliminary study in which the students' production of colligations of prepositions in the essays was identified and checked, and their responses about difficulty with the patterns were gathered. The respondents in the present study were adult learners of English who had already had a stock of prepositions in their native language (Malay) before they joined the intervention sessions. Malay prepositions, as are prepositions in any other languages, cannot be translated directly into English. When these students were asked to write legal essays prior to the intervention, they produced many erroneous patterns. Even though some other factors were also identified as the cause of errors, a majority of them was related to the students' LI (interlingual) interference, for example *discuss about* instead of *discuss*, *enter to contract* instead of *enter into contract*, and *binding to* instead of *binding on*. The pattern *discuss about*, for example, was influenced from *berbincang* (discuss) *tentang* (about) in Malay, while the pattern *binding to* was influenced from *terikat* (binding) *kepada* (to) in Malay. Since many of the erroneous patterns were never corrected before the intervention, they had been frequently used by the respondents in the legal essays and assignments. The patterns which are not corrected for a longer period of time will be more prone to fossilisation. Since colligations of prepositions are very essential to be taught, LI interference should be prevented by teaching those patterns as early as possible, and in meaningful contexts.

Further on, interlingual interference occurred as a result of the teaching method employed in teaching the students in the primary and secondary schools itself. The students were taught prepositions in isolation before and there was no discussion about colligations of prepositions at all. In other words, prepositions were studied via rote learning, in which the students memorised the forms and meanings of prepositional items. Due to the fact that the method had hampered the students' knowledge about prepositions and their patterns, prepositions should be learned in their environments (contexts) and learners' awareness of prepositional patterns should then be raised (Zahar & Spada, 2001). The question now is: What is the most viable approach to learning prepositions in massive contexts?

Though DDL does not guarantee solutions to all problems, it has been accepted as an approach that can provide learners with massive contexts in their true environments (Tognini Bonelli, 2002). Since prepositions cannot be explained except in massive contexts (Celce-Murcia & Larsen-Freeman, 1999), DDL should be accepted with open arms. DDL is still a perpetual enigma (Boulton, 2010a), and an approach like cognitive linguistics cannot compete DDL for this approach cannot conceptualise the semantics of bound words (Matthiessen, 2004).

5.3.5 ESP Practitioners should be Equipped with Proper Training of DDL.

This study has brought to light to ESP teachers and practitioners that intensive DDL training courses are very much needed in order to enhance DDL skills prior to its inclusion in any ESP programmes. ESP practitioners should know how to equip themselves with concordancing, a basic DDL skill (Hunston, 2002), and to be familiar

with some technical aspects of corpus creation (Gavioli & Aston, 2001) especially in cases where the materials to support learning are rare, and there is a need to design a small and specialised corpus to meet ESP students' needs and demands (Mishan, 2004).

Dealing with corpus linguistics is even more challenging since teachers have to equip themselves with both the technical (computer) and linguistic skills (Gradman, 1971; Götz, & Mukherjee, 2006; Johns, 1991a, 1991b, 1993; Mishan, 2004; Pérez-Paredes & Bedmar, 2009; Polezzi, 1994; Sinclair, 2004c; Rea, 2010). Therefore, DDL training courses should be set up to reduce teachers' worries about their lack of expertise (Thompson, 1996). The skill to deal with corpus data and the knowledge about how to perform inductive activities should be improved before DDL learning can take place (Salaberry, 2001, 2005). In other words, ESP teachers should equip themselves with sufficient corpus linguistic skills before they can ask their students to work with corpora and to build confidence in students (Dornyei, 1996). In fact, the inclusion of DDL in ESP and content-based classrooms will not become a reality without any supports and encouragement from the authorities. Sending ESP practitioners to gain proper DDL training is one step further to realise this mission.

5.4 Suggestions for Further Research

The findings of this study were based on data collected through purposive sampling procedure which involved a small sample size. Thus, it is argued that the findings might not be transferable to other population. In order to gain more conclusive findings about the effectiveness of DDL, this study can be replicated in a larger scale study in different law schools in Malaysia made up of a similar or mixed racial composition.

The scope of research should be broadened to other types of law, for example torts law, constitutional law, and criminal law, focusing on different genres such as case studies, contracts, and judgements.

This thesis investigated only the performance of law students in colligations of prepositions using the bottom-up approach. While DDL has been claimed as effective in teaching the micro-linguistic knowledge of the students, many have also commented that DDL is not effective in teaching macro-linguistic knowledge of the students such as in identifying generic or discourse patterns beyond the level of a sentences, for example moves, references, or sentence connectors (Flowerdew, 2009). Since conforming to the discourse community may mean “the act of conforming to the discorsal expectations involving appropriacy of topics, the form, function and positioning of discorsal elements, and the roles texts play in the operation of the discourse community” (Swales, 1980: 29), both micro-linguistic and macro-linguistic skills have to be tested to have a complete picture of learner success with the discourse of a specialised subject. Thus, more studies in future need to include these two linguistic properties to prepare law students with sufficient knowledge of legal phraseology (Bhatia, 1993, 1998; Gibbons, 1994, 2003; Gustafsson, 1975, 1984; Trosborg, 1991).

5.5 Concluding Remarks

DDL deserves a place in the language classroom in the teaching of collocations especially with the aid of scaffolded DDL using paper printouts. However, as mentioned by Barbieri and Eckhardt (2007: 30) and several other scholars, “despite the

wealth of existing publications on classroom concordancing (...), the impact of concordancing and DDL in ELT has been relatively inconspicuous". This is because, despite its numerous theoretical advances, the implementation of DDL in the classroom poses a number of practical problems.

Many DDL researchers including Boulton (2007b) have remarked that DDL is full of promises in many areas. However, the empirical support is distinctly lacking, thus requiring further research in this area. And as Koosha and Jafarpour (2006: 10) pinpointed, "...not only should the selection of collocations but also their teaching should be with reference to L1", this study has taken up all the recommendations and has proven that DDL works in increasing colligational competence of these students with the aid of the module. However, as showed elsewhere in this study, this researcher does not deny the fact that some other factors, for example task types, learner proficiency, and previous legal education still play an influential role in influencing complete acquisition of colligations of prepositions.

REFERENCES

- AbiSamra, N. (2003). *An analysis of errors in Arabic speakers' English writings*. Retrieved 23 July 2008, from <http://www.abisamra03.tripod.com/nada/languageacq-erroranalysis.html>
- Abu Naba'h, A. (2013). The effect of using electronic dialogue journals on English writing performance of Jordanian students. *International Arab Journal of e-Technology*, 3(1), 37-43.
- Agha, M.I. (2007). Analysis of written interlanguage of ESL students with Persian background. Unpublished doctoral thesis, Alliant International University, USA.
- Ahmad, N. (2009). Designing and implementing a legal English course to develop the rule of law in the context of transition in Pakistani society. In Brand, R. A. & D. W. Rist (Eds.), *The export of legal education* (pp. 1-23). Surry, UK: Ashgate.
- Ahmad, N. (2011). Analyzing the spoken English needs in Pakistani academic legal settings. *Pakistan Journal of Social Sciences*, 31 (2), 449-469.
- Akmajian, A. (1995). *Linguistics: An introduction to language and communication*. Cambridge, MA: MIT Press.
- Alcaraz, E., & Hughes, B. (2002). *Legal translation explained*. Manchester: St. Jerome Publishing.
- Allerton, D. (1982): *Valency and the English verb*. London/New York: Academic Press.
- Alsagoff, S.A. (1996). *Principles of the law of contract in Malaysia*. Kuala Lumpur: Malayan Law Journal.
- Alternberg, B. (1998). On the phraseology of spoken English: The evidence of recurrent word-combinations. In A.P. Cowie (Eds.), *Phraseology: Theory, analysis and applications* (pp.101-122). Oxford: Oxford University Press.
- Al-Zahrani, M.S. (1998). Knowledge of English lexical collocations among male Saudi college students majoring in English at a Saudi university. Unpublished doctoral dissertation, Indiana University of Pennsylvania, Pennsylvania.
- Anthony, L. (2008). AntConc (version 3.2.2) [computer software]. Tokyo, Japan: Waseda University. Retrieved 31 March 1999, from <http://www.antlab.sci.waseda.ac.jp/>
- Ashtiani, P., & Tahriri, A. (2013). The impact of using concordancer on EFL learners' reading comprehension. *International Journal of Research Studies in Educational Technology*, 2(1), 45-56.
- Aston, G. (1996). What corpora for ESP? *Paper presented at a conference on ESP at the University of Pavia*. Retrieved 13 June 2008, from <http://www.sslmit.unibo.it/~guy/pavesi.htm>

- Aston, G. (1997a). Small and large corpora in language learning. In B. Lewandowska-Tomaszczyk & J. P. Melia (Eds.), *Practical applications in language corpora* (pp. 51-62). Lodz, Poland: Lodz University Press.
- Aston, G. (1999). Corpus use and learning to translate. *Textus*, 12, 289-314. Retrieved 22 September, 2008, from home.sslmit.unibo.it/~guy/textus.htm
- Azirah Hashim. (2003). Grammar and identity in Malaysian discourse. In J. James, (Eds.), *Grammar in the language classroom, RELC Anthology 43*, (pp. 91-116). RELC: Singapore.
- Bahns, J., & Eldaw, M. (1993). Lexical collocations: A contrastive view. *ELT Journal*, 47, 56-63.
- Baker, M. (1995). Corpora in translation studies. An overview and suggestions for future research. *Target*, 7 (2), 223-243.
- Balunda, S.A. (2009). Teaching academic vocabulary with corpora: Student perceptions of data-driven learning. Unpublished master's dissertation, Indiana University, Indiana.
- Barbieri, F., & Eckhardt, S.E.B. (2007). Applying corpus-based findings to form-focused instruction: The case of reported speech. *Language Teaching Research*, 11(3), 319-346.
- Barlett, F.C. (1932). *Remembering: A study in experimental social psychology*. Cambridge: Cambridge University Press.
- Batstone, R. (1995). Product and process: Grammar in the second language classroom. In Bygate, M., A. Tonkyn, & E. William (Eds.). *Grammar and the language teacher* (pp. 224-236). London: Prentice Hall.
- Bazzaz, F. E. & Arshad Abd Samad. (2011). The use of verb noun collocations in writing stories among Iranian EFL learners. *English Language Teaching*, 4 (3), 158-163. Retrieved 20 February, 2012 from <http://www.ccsenet.org/journal/index.php/elt/article/download/11886/8346>
doi:10.5539/elt.v4n3p158
- Beasley, C. J. (1993). Language & content: The case of law. Paper presented at the 8th International Institute of Language in Education Conference "Language and Content", 15-18th December, 1992, Hong Kong.
- Belcher, D. (2006). English for specific purposes: Teaching to perceived needs and imagined futures in worlds of work, study and everyday life. *TESOL Quarterly*, 40(1), 133-156.

- Bennui, P. (2008). A study of L1 interference in the writing of Thai EFL students. *Malaysian Journal of ELT Research (MELTA)*, (4), 72-102. Retrieved 22 July 2011, from <http://www.melta.org.my>
- Benson, M., Benson, E., & Ilson, R. (1986). *The BBI combinatory dictionary of English: A guide to word combinations*. Amsterdam: John Benjamins Publishing Company.
- Benson, M., Benson, E., & Ilson, R. (1997). *The BBI dictionary of English word combination* (revised ed.). Amsterdam: John Benjamins Publishing Co.
- Bernardini, S. (2000). Systematising serendipity: Proposals for concordancing large corpora with language learners. In L. Burnard & T. McEnery (Eds.), *Rethinking language pedagogy from a corpus perspective* (pp. 225-234). Frankfurt am Main: Peter Lang.
- Bernardini, S. (2002). Exploring new directions for discovery learning. In B. Kettemann & G. Marko (Eds.), *Teaching and learning by doing corpus analysis: Proceedings of the Fourth International Conference on Teaching and Language Corpora* (pp. 165-182). Amsterdam: Rodopi.
- Bernardini, S. (2004). Corpora in the classroom: An overview and some reflections on future developments. In J. M. Sinclair (Eds.), *How to use corpora in language teaching* (pp. 15-36). Amsterdam: Benjamins.
- Bernardini, S., Baroni, M., & Evert, S. (2006). A WaCky introduction. In M. Baroni & S. Bernardini (Eds.), *Wacky! Working papers on the web as corpus* (pp. 9-40). Bologna: Gedit.
- Bernardini, S. (2007). Collocations in translated language. Combining parallel, comparable and reference corpora. In M. Davies, P. Rayson, S. Hunston, & P. Danielsson (Eds.), *Proceedings of the Corpus Linguistics Conference held 27th - 30th July, 2007 in Birmingham, UK*. Retrieved 13 October, 2013 from http://ucrel.lancs.ac.uk/publications/CL2007/paper/15_Paper.pdf
- Bhatia, V.K. (1983). *An applied discourse analysis of English legislative writing. A Language studies research report*. Birmingham, UK: University of Aston.
- Bhatia, V.K. (1993). *Analysing genre: Language in professional settings*. London: Longman.
- Bhatia, V.K. (1998). Intertextuality in legal discourse. *The Language Teacher*. Retrieved 12 May 1999, from <http://www.jalt-publications.org/tlt/files/98/nov/Bhatia.html>
- Bhatia, V. K. (2004). *Worlds of written discourse: A genre-based view*. London: Continuum International.

- Bhela, B. (1999). Native language interference in learning a second language: Exploratory case studies of native language interference with target language usage. *International Education Journal*, 1(1), 22-31. Retrieved 4 March 1999, from <http://www.ehlt.flinders.edu.au/education/iej/...v1n1/bhela.pdf>
- Biber, D. (1988). *Variation across speech and writing*. Cambridge: Cambridge University Press.
- Biber, D., Conrad, S., & Reppen, R. (1998). *Corpus linguistics: Investigating language structure and use*. Cambridge: Cambridge University Press.
- Biber, D., Johansson, S., Leech, G., Conrad, S., & Finegan, E. (1999). *Longman grammar of spoken and written English*. London: Longman.
- Biber, D., Conrad, S., & Leech, G. (2002). *Longman student grammar of spoken and written English*. Longman: London.
- Biber, D., Conrad, S., & Cortes, V. (2004). If you look at...: Lexical bundles in university teaching and textbooks. *Applied Linguistics*, 25(3), 371-405.
- Bloor, T., & Bloor, M. (1995). *The functional analysis of English*. London: Arnold.
- Boers, F., & Demecheleer, M. (1998). A cognitive semantic approach to teaching prepositions, *ELT Journal*, 53, 197-204.
- Bolinger, D. (1976). Meaning and memory. *Forum Linguisticum*, 1(1), 1-14.
- Bonk, W. (2000). Testing ESL learners' knowledge of collocations. Eric Document Reproduction Service No.: 442309.
- Bordet, L., & Jamet, D. (2010). Are English prepositions lexical or grammatical morphemes? *Cercles, Occasional Papers*, 1-26. Retrieved 23 February, 2012, from <http://www.cercles.com/occasional/ops2010/bordetjamet.pdf>
- Boquist, P.J. (2009). The second language acquisition of English preposition. Unpublished senior thesis, Liberty University. Retrieved 22 May 2011, from <http://digitalcommons.liberty.edu/cgi/query.cgi?>
- Boulton, A. (2007a). DDL is in the details... and in the big themes. In M. Davies, P. Rayson, S. Hunston, & P. Danielsson (Eds.), *Proceedings of the Corpus Linguistics Conference (CL2007)* (pp.1-13), held 27th-30th July, 2007 at the University of Birmingham, UK.
- Boulton, A. (2007c). But where's the proof? The need for empirical evidence for data-driven learning. In M. Edwardes (Eds.), *Proceedings of the BAAL annual conference* (pp 13-16). London: Scitsiugnill Press.

- Boulton, A. (2008a). *Evaluating corpus use in language learning: State of play and future directions*. Paper presented at AAAL 2008 (American Association for Corpus Linguistics), Brigham Young University, Provo, Utah, USA.
- Boulton, A. (2008b). *Off-the-peg materials for DDL*. Paper presented at the New Trends in Corpus Linguistics for Language Teaching and Translation Studies: In Honour of John Sinclair, University of Granada/University Jaume I, Granada, Spain.
- Boulton, A. (2008c). Looking (for) empirical evidence for DDL at lower levels. In B. Lewandowska-Tomaszczyk (Eds.), *Corpus linguistics, computer tools, and applications* (pp. 581-598). Frankfurt am Main: Peter Lang.
- Boulton, A. (2008d). DDL: Reaching the parts other teaching can't reach? In A. Frankenburg Garcia (Eds.), *Proceedings of the Eighth Teaching and Language Corpora Conference* (pp. 38-44). Lisbon, Portugal: Associação de Estudos e de Investogação Científica do ISLA-Lisboa.
- Boulton, A. (2009a). Data-driven learning: Reasonable fears and rational reassurance. *Indian Journal of Applied Linguistics*, 35(1), 81-106.
- Boulton, A. (2009b). *Corpora for all? Learning styles and data-driven learning*. Paper presented at the Fifth Corpus Linguistics Conference, University of Liverpool, Liverpool, UK.
- Boulton, A. (2009c). Testing the limits of data-driven learning: Language proficiency and training. *ReCALL*, 21(1), 37-51.
- Boulton, A. (2010a). Data-driven learning: Taking the computer out of the equation. *Language Learning*, 60(3), 534-572.
- Boulton, A. (2010c). Data-driven learning: On paper, in practice. In T. Harris & M. Moreno Jaén (Eds.), *Corpus linguistics in language teaching* (pp 17-52). Bern: Peter Lang.
- Boulton, A. (2011a). Data-driven learning: The perpetual enigma. In Gozdz-Roszkowski & B. Lewandowska-Tomaszczyk (Eds.), *Explorations across languages and corpora* (pp. 563-580). Frankfurt: Peter Lang.
- Boulton, A. (2011d). Language awareness and medium-term benefits of corpus consultation. In A. Gimeno Sanz (Eds.), *New trends in computer-assisted language learning: Working together* (pp.39-46). Madrid: Macmillan ELT.
- Boulton, A. (2012c). Beyond concordancing: Multiple affordances of corpora in university language degrees. In D. Macaire & A. Boulton (Eds.), *Languages, cultures and virtual communities. Procedia: Social and Behavioral Sciences*, 34, 33-38.
- Bourke, J. (1996). In praise of linguistic problem-solving. *RELC Journal*, 27, 12-29.

- Bowker, L. & Pearson, J. (2002). *Working with specialised language: A practical guide to using corpora*. London: Routledge.
- Bram, B. (2005). *Some Common Problems Involving Prepositions in Writing English in a Multilingual Context*. TEFLIN UAD 2005 Seminar, Yogyakarta. Retrieved 4 February 2010, from <http://sanata-dharma.academia.edu/BarliBram/Papers/57681/>
- British National Corpus (BNC). Retrieved 4 January 2008, from <http://www.lextutor.ca/concordancers>
- Brown, D. F. (1974). Advanced vocabulary teaching: The problem of collocation. *RELC Journal*, 5, 1-11.
- Brown, H. D. (2000). *Principles of language learning and teaching* (4th ed.). White Plains, NY: Addison, Wesley, Longman, Inc.
- Bruce, N. (2002). Dovetailing language and content: Teaching balanced argument in legal problem answer writing. *English for Specific Purposes*, 21, 321-345.
- Bruner, J. (1966). *Toward a theory of instruction*. Cambridge: Harvard University Press.
- Bruner, J. (1990). *Acts of meaning*. Cambridge, MA: Harvard University Press.
- Burt, M. K., & Dulay, H.C. (1984). You can't learn without goofing: An analysis of children's second language 'errors'. In J.C. Richards (Eds.), *Error analysis: Perspectives on second language acquisition* (pp. 95-123). London and New York: Longman.
- Canagarajah, A.S. (2002). *A geopolitics of academic writing*. Pittsburgh: University of Pittsburgh Press.
- Candlin, C., Bhatia, V.K., & Jensen, C.H. (2002). Developing legal writing for English second language learners: Problems and perspectives. *English for Specific Purposes*, 21, 299-320.
- Carrell, P. L. (1983). Three components of background knowledge in reading comprehension. *Language Learning*, 33, 183-207.
- Carrell, P. L. (1987). Content and formal schemata in ESL reading comprehension *TESOL Quarterly*, 21, 461-481.
- Carrell, P. L., & Eisterhold, J. C. (1983). Schema theory and ESL reading pedagogy. *TESOL Quarterly*, 17(4), 553-573.
- Carkin, S. (2005). English for academic purposes. In E. Hinkel (Eds.), *Handbook of research in second language teaching and learning* (pp. 85-98). Mahwah, New Jersey and London: Lawrence Erlbaum Associates.

- Carter, R. (1987). *Vocabulary: Applied linguistic perspectives*. London and New York: Routledge.
- Celce-Murcia, M., & Larsen-Freeman, D. (1999). *The grammar book: An ESL/EFL teacher's course*. Boston: Heinle and Heinle Publishing Company.
- Celce-Murcia, N., Brinton, M. D., & Goodwin, J. M. (1996). *Teaching pronunciation. A reference for teachers of English to speakers of other languages*. New York: Cambridge University Press.
- Chambers, A. (2005). Integrating corpus consultation in language studies. *Language Learning and Technology*, 9(2), 111–125.
- Chambers, A. (2007a). Language learning as discourse analysis: Implications for the LSP learning environment. *ASp*, 35-51. Retrieved 24 January 2009, from www.asp.revues.org/
- Chambers, A. (2007b). Integrating corpora in language learning and teaching. *ReCALL*, 19(3), 249-251.
- Chambers, A., & Kelly, V. (2004). Corpora and concordancing: Changing the paradigm in language learning and teaching. In A. Chambers, J.E. Conacher, & J.M. Littlemore (Eds.), *ICT and language learning: Integrating pedagogy and practice* (pp. 183-202). Birmingham: Birmingham University Press.
- Chambers, A., & O'Sullivan, I. (2004). Corpus consultation and advanced learners' writing skills in French. *ReCALL*, 16(1), 158–172.
- Chang, W. C. (1997). *Freshman English composition: An error analysis from the discourse Perspective*. Taipei: Crane.
- Chang, W., & Sun, Y. (2009). Scaffolding and web concordancers as support for language learning. *Computer Assisted Language Learning*, 22(4), 283-302.
- Chan, P-T., & Liou, H-C. (2005). Effects of web-based concordancing instruction on EFL students' learning of verb-noun collocations. *Computer Assisted Language Learning*, 18(3), 231–251.
- Charrow, R. P., & Charrow, V. R. (1979). Making legal language understandable: A psycholinguistic study of jury instructions. *Columbia Law Review*, 79(7), 1306-1374.
- Charrow, V. R., Crandall, J.A., & Charrow, R.P. (1982). Characteristics and functions of legal language. In Kittredge R & Lehrberger J. (Eds.), *Sublanguage: Studies of language in restricted semantic domain* (pp. 175-190). Berlin: de Gruyter.
- Cheng, W., Warren, M., & Xun-feng, X. (2003). The language learner as language researcher: Putting corpus linguistics on the timetable. *System*, 31 (2), 173-186.

- Cheng, W-Y. (2006). The use of web-based writing programme in college English writing classes in Taiwan. Unpublished master's thesis, National Kaohsiung, First University of Science and Technology, Taiwan.
- Chomsky, N. (1965). *Aspects of the Theory of Syntax*. Massachusetts, USA: MIT Press.
- Chu, H-Y. (2006). Noticing, output, and collocation learning. *Proceedings of the 15th International Symposium on English Teaching* (pp. 174-183). Taipei: Crane Publishing Company Ltd.
- Chua, Y. P. (2008). *Asas statistik penyelidikan [Basic Statistical Research]: Analisis data skala ordinal dan nominal [Analysis of ordinal and nominal data]*. Kuala Lumpur, Malaysia: McGraw-Hill (Malaysia) Sdn. Bhd.
- Chung, S-F. (2005). A communicative approach to teaching grammar: Theory and practice. *The English Teacher*, 34, 33-50. Selangor: Malaysian English Language Teaching Association (MELTA).
- Clark, R. E. (1989). When teaching kills learning: Research on mathematics. In H. N. Mandl, N. Bennet, E. de Corte, & H. F. Freidrich (Eds.), *Learning and Instruction: European Research on International Context* (pp. 1-22). Longman: Pergamon.
- Cobb, T. (1997). Is there any measurable learning from hands-on concordancing? *System*, 25(3), 301–315.
- Cohen. J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Lawrence Erlbaum.
- Cohen, A. D., & Dörnyei, Z. (2002). Focus on the language learner: Motivation, styles, and strategies. In N. Schmitt (Eds.), *An introduction to applied linguistics* (pp. 170-190). London: Edward Arnold.
- Conklin, K. & Schmitt, N. (2008). Formulaic sequences: Are they processed more quickly than non-formulaic language by native and nonnative speakers. *Applied Linguistics*, 29(1), 72-89.
- Connor, U. (1999). *Contrastive rhetoric: Cross-cultural aspects of second language writing*. Cambridge: Cambridge University Press.
- Connor, U. (1999). Second language writing. In B. Spolsky (Eds.), *Concise encyclopedia of educational linguistics* (pp. 6-17). London: Elsevier.
- Conrad, S. (2005). Corpus linguistics and L2 teaching. In E. Hinkel (Eds.). *Handbook of research in second language teaching and learning* (pp. 393-410). Mahwah, New Jersey and London: Lawrence Erlbaum Associates.
- Contracts Act 1950 (Act 136) & Contracts (Amendment) Act 1976 (A329)*. Batu Caves, Selangor: Penerbitan Akta (M) Sdn. Bhd.

- Conzett, J. (2000). Integrating collocation into a reading and writing course. In M. Lewis (Eds.), *Teaching collocation: Further developments in the lexical approach* (pp. 70- 86). Hove: Language Teaching Publications.
- Cook, V. (2001). *Second language learning and language teaching* (3rd ed.). London: Arnold.
- Corder, S. P. (1967). The significance of learners' errors. *International Review of Applied Linguistics (IRAL)*, 5, 161-169.
- Corder, S. P. (1973). *Introducing applied linguistics*. Harmondsworth: Penguin.
- Corder, S. P. (1971). Idiosyncratic errors and error analysis. *International Review of Applied Linguistics (IRAL)*, 9(2), 147-159.
- Corder, S. P. (1974). Error Analysis. In J. P. B. Allen & S. P. Corder (Eds.), *Techniques in Applied Linguistics: The Edinburgh Course in Applied Linguistics: 3* (pp. 122-154). London: Oxford University Press.
- Corder, S. P. (1986). *Error Analysis and Interlanguage* (3rd ed.). Oxford: Oxford University Press.
- Cortes, V. (2004). Lexical bundles in academic writing in history and biology. *English for Specific Purposes*, 23, 397-423.
- Cotterill, J. (2003). *Language and power in court: A linguistic analysis of the O. J. Simpson Trial*. Houndmills: Palgrave Macmillan.
- Cowie, A.P. (1978). *The place of illustrative material and collocations in the design of a learner's dictionary: In Honour of A.S. Hornby*. Oxford: Oxford University Press.
- Cowie, A.P. (1998). Introduction. In A.P. Cowie (Eds.), *Phraseology: Theory, analysis and applications* (pp. 1-22). Oxford: Clarendon Press.
- Craig, E. C. (2008). *N + P clusters in freshman composition: A lexico-grammatical approach to academic vocabulary for second language writers*. Unpublished doctoral dissertation, University of Georgia, Athens, USA.
- Crawford, P., & Brown, B. J. (2010). Health communication: Corpus linguistics, data driven learning and education for health professionals. *International English for Specific Purposes Journal*, 2, 1-26.
- Cresswell, A. (2007). Getting to 'know' connectors? Evaluating data-driven learning in a writing skills course. In E. Hidalgo, L. Quereda, & J. Santana (Eds.), *Corpora in the Foreign Language Classroom* (pp. 267-287). Amsterdam: Rodopi.
- Creswell, J. W. (2008). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (3rd ed.). New Jersey: Prentice Hall.

- Creswell, J. W. (2009). *Research Design* (3rd ed.). California: Sage Publications.
- Creswell, J. W., & Plano Clark, V. L. (2007). *Designing and conducting mixed-methods research*. California: Sage Publications.
- Danet, B. (1980). Language in the legal process. *Law & Society Review*, 14(3), 447-564.
- Danet, B. (1985). Legal Discourse. In T. A. van Dijk (Eds.), *Handbook of Discourse Analysis* (vol. 1, pp. 237–291). London: Academic Press.
- Daniel, W. W. (2009). *Biostatistics: Basic concepts and methodology for the health sciences* (9th ed.). Hoboken, New Jersey: John Wiley and Sons, Inc.
- Danielsson, P., & Mahlberg, M. (2003). There is more to knowing a language than knowing its words: Using parallel texts in the bilingual classroom. *English for Specific Purposes World. Online Journal for Teachers*, 3(6) 2. Retrieved 14 July, 1999, from http://www.esp-world.info/articles_6/DanielssonMahlberg2003.htm.
- das Neves Seesink, M. T. (2007). Using blended instruction to teach academic vocabulary collocations: A case study. Unpublished doctoral thesis, West Virginia University, Virginia, USA. Retrieved 13 May 2009, from <https://eidr.wvu.edu/eidr/documentdata.eIDR?documentid=4996>.
- Davie, H.C.M. (1982). Legal cases - Why non-native students are baffled. *English for Specific Purposes*, 68, 1-2, 6.
- Davies, K. (2003). *Understanding European Union Law* (2nd ed.). London: Cavendish Publishing Limited.
- Denning, the Rt Hon Lord. (1979). *The discipline of law*. London: Butterworths.
- DeKeyser, R. (1998). Beyond focus on form: Cognitive perspectives on learning and practicing second language grammar. In Doughty, C., & J. Williams (Eds.), *Focus on form in classroom second language acquisition* (pp. 42–63). Cambridge, UK: Cambridge University Press.
- de Saussure, F. (1966). *Course in general linguistics* (W. Baskin, Trans.). New York: McGraw-Hill Book Company.
- Díez-Bedmar, M. B. (2005). Struggling with English at university level: Error-patterns and problematic areas of first-year students' interlanguage. In P. Danielsson and M. Wagenmakers (Eds.), *The Corpus Linguistics Conference Series*. Retrieved 12 May, 2012 from <http://www.corpus.bham.ac.uk/PCLC/>

- Dirven, R. (1993). Dividing up physical and mental space into conceptual categories by means of English prepositions. In C. Zelinsky-wibbelt (Eds.), *Natural language processing: The semantics of prepositions* (pp. 73-97). The Hague: Mouton de Gruyter.
- Dörnyei, Z. (1996). Moving language learning motivation to a larger platform for theory and practice. In R. Oxford (Eds.), *Language learning motivation: Pathways to the new century* (Technical Report #11) (pp. 71-80). Honolulu: University of Hawai'i, Second Language Teaching and Curriculum Center.
- Dörnyei, Z. (2007). *Research methods in applied linguistics*. Oxford: Oxford University Press.
- Dörnyei, Z. (2009). *The psychology of second language acquisition*. Oxford: Oxford University Press.
- Doughty, C., & Williams, J. (1998). *Focus on form in classroom second language acquisition*. Cambridge: Cambridge University Press.
- Downing, A., & Locke, P. (2006). *English grammar: A university course* (2nd ed.). London and New York: Routledge.
- Dudley-Evans, T., & St. John, M. J. (1998). *Developments in English for specific purposes: A multi-disciplinary approach*. Cambridge: Cambridge University Press.
- Dulay, H. C., & Burt, M. K. (1973). Should we teach children syntax? *Language Learning*, 23, 245-258.
- Dulay, H. C., & Burt, M. K. (1972). Goofing: An indicator of children's second language learning strategies. *Language Learning*, 22, 235-252.
- Dulay, H. C., Burt, M. K., & Krashen, S. D. (1982). *Language two*. New York: Oxford University Press.
- Durrant, P. (2009). Investigating the viability of a collocation list for students of English for academic purposes. *English for Specific Purposes*, 28, 157-169.
- Ellis, J. (1966). On contextual meaning. In C. E. Bazell, J. C. Catford, M.A.K. Halliday, & R. H. Robins (Eds.), *In Memory of J. R. Firth* (pp. 79-95). London: Longmans.
- Ellis, R. (1985). *Understanding second language acquisition*. Oxford: Oxford University Press.
- Ellis, R. (1986). *The study of second language acquisition*. Oxford: Oxford University Press.
- Ellis, R. (1990). *Instructed second language acquisition*. Oxford: Blackwell.

- Ellis, R. (1994). *The study of second language acquisition*. Oxford: Oxford University Press.
- Ellis, R. (1997) *Second language acquisition*. Oxford: Oxford University Press.
- Ellis, R. (2001). Introduction: Investigating form-focused instruction. In R. Ellis (Eds.), *Form-focused instruction and second language learning* (pp. 1-46). Oxford: Blackwell.
- Ellis, R. (2005). Instructed language learning and task-based teaching. In E. Hinkel (Eds.), *Handbook of research in second language teaching and learning* (pp. 713-728). Mahwah, New Jersey and London: Lawrence Erlbaum Associates.
- Ellis, R. (2006). Current issues in the teaching of grammar: An SLA perspective. *TESOL Quarterly*, 40(1), 83-107.
- Ellis, R. (2008a). *The study of second language acquisition* (2nd ed.). Oxford: Oxford University Press.
- Ellis, R. (2008b). Explicit form-focused instruction and second language acquisition. In B. Spolsky & F. M. Hult (Eds.), *The handbook of educational linguistics* (pp. 437-455). Oxford: Blackwell.
- Ellis, R., & Barkhuizen, G. (2005). *Analysing learner language*. Oxford: Oxford University Press.
- Ene, S. E. (2006). *The last stages of second language acquisition: Linguistic evidence from academic writing by advanced non-native English speakers*. Unpublished doctoral thesis, University of Arizona, Arizona, USA.
- Engberg, J. (2009). Knowledge construction and legal discourse: The interdependence of perspective and visibility of characteristics. Retrieved 12 March 2009, from <http://www.sciencedirect.com>
- Essberger, J (2009). *English prepositions listed*. Retrieved 12 October 1999, from <http://www.my.englishclub.com>
- Fajans, E. (1997). From the desk of the writing specialist: Double talk and twisted thought: Reflections on incoherence. *Legal Writing Institute*, 11 (2), 9-10. Retrieved 11 March, 1999, from <http://www.lwionline.org/publications/seconddraft/may97.pdf>
- Fan, M., & Xun-feng, X. (2002). An evaluation of an online bilingual corpus for the self-learning of legal English. *System*, 30, 47-63.
- Fang, A. C. (2000). A lexicalist approach towards the automatic determination for the syntactic functions of prepositional phrases. *Natural Language Engineering*, 6, 183–201.

- Farr, F. (2008). Evaluating the use of corpus-based instruction in a language teacher education context: Perspectives from the users. *Language Awareness*, 17(1), 25-43.
- Felder, R. M., & Henriques, E. R. (1995). Learning and teaching styles in foreign and second language education. *Foreign Language Annals*, 28(1), 21-31.
- Ferris, D. (2002). *Treatment of errors in second language students' writing*: Michigan: Michigan Series on Teaching Multilingual Writers.
- Field, A. P. (2009). *Discovering statistics using SPSS: And sex and drugs and rock 'n' roll* (3rd ed.). London: Sage publications.
- Fillmore, C.J. (1979). On fluency. In C. J. Fillmore, D. Kempler, & W. S-Y Wang (Eds.), *Individual differences in language ability and language behavior* (pp. 85-101). New York: Academic Press.
- Finocchiaro, M., & Brumfit, C. (1983). *The functional-notional approach*. Oxford: Oxford University Press.
- Firth, J. R. (1957a). Modes of meaning. In J. R. Firth (Eds.), *Papers in linguistics, 1934-1951* (pp. 190-215). London: Oxford University Press.
- Firth, J.R. (1957b). A synopsis of linguistic theory, 1930-1955. In J. R. Firth (Eds.), *Studies in linguistic analysis* (pp. 1-32). Oxford: Philological Society.
- Firth, J. R. (1968). Descriptive linguistics and the study of English. In F. R. Palmer (Eds.), *Selected papers of J. R. Firth 1952-59* (pp. 96-113). London and Harlow: Longman.
- Fligelstone, S. (1993). Some reflections on the question of teaching from a corpus linguistic perspective. *ICAME Journal*, 17, 97-109.
- Flowerdew, J. (2002). Use of signalling nouns in a learner corpus. In J. Flowerdew & M. Mahlberg (Eds.), *Lexical cohesion and corpus linguistics* (pp. 85-102). Amsterdam and Philadelphia: John Benjamins.
- Flowerdew, J. (2006). Signalling nouns in a learner corpus. *International Journal of Corpus Linguistics*, 11(3), 345-362.
- Flowerdew, L. (1998a). *A corpus-based analysis of referential and pragmatic errors in student writing*. Paper presented at the 3rd Teaching and Language Corpora (TaLC) Conference, held on 24-27th July at Keble College, Oxford, UK.
- Flowerdew, L. (2009). Applying corpus linguistics to pedagogy: A critical evaluation. *International Journal of Corpus Linguistic*, 14(3), 393-417.

- Francis, G. (1993). A corpus-driven approach to grammar: Principles, methods and examples. In M. Baker, G. Francis, & E. Tognelli-Bonelli (Eds.), *Text and technology: In Honour of John Sinclair* (pp. 137-156). Amsterdam: John Benjamins.
- Francis, W. N. (1992). Language corpora B. C. In Svartvik, J. (Eds.), *Directions in corpus linguistics: Proceedings of Nobel Symposium 82*, held on 4th-8th August 1991 in Stockholm (pp. 17-32). Berlin and New York: Mouton de Gruyter.
- Frank, M. (1972). *Modern English: A practical reference guide*. Englewood Cliffs, New Jersey: Prentice-Hall.
- Fuentes, A. C. (2000). *A lexical common core in English for Information Science and Technology*. Unpublished doctoral thesis, University of Extremadura, Spain.
- Fuentes, A. C. (2001). Lexical behavior in academic and technical corpora: Implications for ESP development. *Language Learning and Technology*, 5(3), 106-129.
- Fuentes, A. C. (2007). Lexical acquisition in ESP via corpus tools: Two case studies. *Scripta Manent*, 3(1), 21-34.
- Gabrielatos, C. (2005). *Corpora and language teaching: Just a fling or wedding bells?* Retrieved 22 August 2010, from <http://www.tesl-ej.org/ej32/a1.html>
- Gabrys-Biskup, D. (1990). Some remarks on combinability: Lexical collocations. In J. Arabski (Eds.), *Foreign Language Acquisition Papers* (pp. 31-44). Katowice: Uniwersytet Slaski.
- Gabrys-Biskup, D. (1992). L1 influence on learners' renderings of English collocation. A Polish/German empirical study. In P. J. Arnaud & H. Benjoint (Eds.), *Vocabulary and Applied Linguistics* (pp. 85-93). London: Macmillan.
- Gan, S-L., Low, F., & Yaakub, N. F. (1996). Modeling teaching with a computer-based concordancer in a TESL preservice teacher education program. *Journal of Computing in Teacher Education*, 12(4), 28-32.
- Gaskell, D., & Cobb, T. (2004). Can learners use concordance feedback for writing Errors? *System*, 32, 301-319.
- Gass, S. (1997). *Input, interaction and the second language learner*. Mahwah, NJ: Lawrence Erlbaum.
- Gass, S. M., & Selinker, L. (1983). *Language transfer in language learning*. Rowley, MA: Newbury House.
- Gass, S., & Selinker, L. (2008). *Second Language Acquisition: An Introductory Course (3rd ed.)*. New York: Routledge.

- Gavioli, L. (2001). The learner as researcher: Introducing corpus concordancing in the classroom. In Aston, G. (Eds.), *Learning with corpora* (pp. 108-137). Houston, Texas: Athelstan.
- Gavioli, L., & Aston, G. (2001). Enriching reality: Language corpora in language pedagogy. *ELT Journal*, 55(3), 238-246.
- Gavioli, L. (2005). *Exploring corpora for ESP learning*. Amsterdam: John Benjamins.
- Gibbons, J. (1994). *Language of the law*. London: Longman.
- Gibbons, J. (2003). *Forensic linguistics: An introduction to language in the justice system*. Malden, MA: Blackwell.
- Gibová, K. (2012) On Modality in EU Institutional-Legal Documents. Retrieved 15 October, 2013, from http://www.pulib.sk/elpub2/FF/Kacmarova2/pdf_doc/gibova.pdf
- Gilquin, G., & Granger, S. (2010). *How can DDL be used in language teaching?* Retrieved 22 April, 2012 from http://sites.uclouvain.be/cecl/archives/Gilquin_Granger_2010_How_can_DDL_be_used_in_langua...
- Gledhill, C. J. (1995a). Collocation and genre analysis. The phraseology of grammatical items in cancer research articles and abstracts. *Zeitschrift für Anglistik und Amerikanistik*, XLIII, 1(1), 11-36. Retrieved 14 June 2012, from http://www.academia.edu/1995463/Collocation_and_genre_analysis._The_Phraseology_of_grammatical_items_in_cancer_research_articles_and_abstracts
- Gledhill, C. J. (2000). *Collocations in science writing*. Germany: Gunter Narr Verlag Tübingen.
- Gledhill, C. J. (2009). Colligation and the cohesive function of present and past tense in the scientific research article. In D. Banks (Eds.), *Les Temps et les textes de spécialité* (pp. 65-84). Paris: L'Harmattan.
- Gledhill, C. J. (2011). The 'lexicogrammar' approach to analysing phraseology and collocation in ESP texts, *ASp* 59, 5-23.
- Ghadessy, M., Henry, A., & Roseberry, R. (eds.) (2001). *Small corpus studies and ELT*. Amsterdam: John Benjamins.
- Götz, S., & Mukherjee, J. (2006). Evaluation of data-driven learning in university teaching: A project report. In S. Braun, K. Kohn, & J. Mukherjee (Eds.), *Corpus technology and language pedagogy: New resources, new tools, new methods* (pp. 49-67). Frankfurt am Main: Peter Lang.

- Gozdz-Roszkowski, S. (2003). *PALC'03 Abstracts from the Fourth International Conference on Practical Applications in Language Corpora*. Łódź: Łódź University Press.
- Gozdz-Roszkowski, S. (2004). Multi-word lexical units in legal genres: The pedagogic perspective. In B. Lewandowska-Tomaszczyk (Eds.), *Practical applications in language and computers (PALC 2003)* (pp. 401-413). Frankfurt: Peter Lang.
- Gradman, H.L. (1971). *Foreign language teacher preparation: An integrated approach*. Paper presented at the New Mexico Association of Foreign Language Teachers, Albuquerque, New Mexico.
- Granger, S. (1998c). Prefabricated patterns in advanced EFL writing: Collocations and formulae. In A. P. Cowie (Eds.), *Phraseology: Theory, Analysis and Applications* (pp. 145-160). Oxford: Oxford University Press.
- Granger, S., & Tribble, C. (1998). Learner corpus data in the foreign language classroom: Form-focused instruction and data-driven learning. In S. Granger (Eds.), *Learner English on computer* (pp. 199-209). London: Longman.
- Grimshaw, J. (1991). *Extended projection*. Manuscript: Brandeis University.
- Groom, N. (2007). *Phraseology and epistemology in humanities writing*. Unpublished doctoral dissertation, University of Birmingham, Birmingham, UK.
- Gustaffson, M. (1975). *Some syntactic properties of English law language*. Turku, Finland: University of Turku, Department of English.
- Gustaffson, M. (1984). The syntactic features of binomial expressions in legal English. *Text*, 4(1-3), 123-141.
- Hadley, G. (1997). *Concordancing in Japanese TEFL: Unlocking the power of data-driven learning*. Retrieved 22 October 1998, from <http://www.nuis.ac.jp/~hadley/publication/>
- Hadley, G. (2002). Sensing the winds of change: An introduction to data-driven learning. *RELC Journal*, 33(2), 99-124.
- Hafner, C.A., & Chandlin, N. (2007). Corpus tools as an affordance to learning in professional legal education. *Journal of English for Academic Purposes*, 6, 303-318.
- Halliday, M.A.K. (1966). Lexis as a linguistic level. In C. E. Bazell, J.C. Catford, M.A.K. Halliday, & R.H. Robins (Eds.), *In Memory of J.R. Firth* (pp. 117-148). London: Longmans.
- Halliday, M.A.K. (1967a). Notes on transitivity and theme in English (part 1). *Journal of Linguistics*, 3, 37-82.

- Halliday, M.A.K. (1970b). Language structure and language function. In J. Lyons (Eds.), *New horizon in Linguistics* (pp. 140-165). Harmondsworth: Penguin.
- Halliday, M.A.K. (1973). Language in social perspective. In M.A.K Halliday (Eds.), *Explorations in the functions of language* (pp. 48-71). London: Edward Arnold.
- Halliday, M.A.K. (1975). *Learning how to mean: Explorations in the development of language*. London: Edward Arnold.
- Halliday, M.A.K. (1978). *Language as social semiotic: The social interpretation of language and meaning*. London: Edward Arnold.
- Halliday, M.A.K. (1985). *Introduction to functional grammar*. London: Edward Arnold.
- Halliday, M.A.K. (1989). *Spoken and written language*. Oxford: Oxford University Press.
- Halliday, M.A.K. (1991). The notion of 'context' in language education. In T. Lê and M. McCausland (Eds.), *Language Education: Interaction and Development. Proceedings of the International Conference on Language Education, held 30 March – 1 April 1992 in Ho Chi Minh City, Vietnam* (pp. 1-26). Tasmania, Australia: University of Tasmania at Launceston.
- Halliday, M.A.K. (1994). *An introduction to functional grammar* (2nd ed.). London: Edward Arnold.
- Halliday, M.A.K. (2005). On grammar and grammatics. In J. J. Webster (Eds.), *On grammar* (pp. 384-418). London and New York: Continuum.
- Halliday, M.A.K., & Hasan, R. (1976). *Cohesion in English*. London: Longman.
- Halliday, M.A.K., & Hasan, R. (1985). *Language, context, and text: Aspects of language in a social-semiotic perspective*. Oxford: Oxford University Press.
- Halliday, M.A.K., & Martin, J.R. (1993). *Writing science: Literacy and discursive power*. Pittsburgh: University of Pittsburgh Press.
- Halliday, M. A. K., McIntosh, M., & Stevens, P. (1964). *The linguistic sciences and language teaching*. London: Longman.
- Halliday, M.A.K, & Matthiessen, C.M.I.M. (2004). *An introduction to functional grammar* (3rd ed.). London: Arnold.
- Halliday, M.A.K., & Yallop, C. (2007). *Lexicology*. London: Cromwell Press.
- Harmer, J. (2001). *The practice of English language teaching* (3rd ed.). New York: Longman.

- Hargreaves, P. (2000). Collocation and testing. In M. Lewis (Eds.), *Teaching collocation: Further developments in the lexical approach* (pp. 205-221). Hove: Language Teaching Publications.
- Harris, S. (1997). Procedural vocabulary in law case reports. *English for Specific Purposes*, 16(4), 289-308.
- Ha Le, Thanh. (2010). *Learning lexical collocations with concordancing and scaffolding*. Unpublished master's dissertation, University of Groningen, the Netherlands. Retrieved 13 March 2011, from sripties.let.eldoc.ub.rug.nl/FILES/.../Le/MA_1938851_T_H_Le.pdf
- Healey, J.F. (2009). *Statistics: A tool for social reasearch* (9th ed.). Belmont, California: Wadsworth, Cengage Learning.
- Hemchua, S., & Schmitt, N. (2006). An analysis of lexical errors in the English compositions of Thai learners. *Prospect*, 21(3), 2-25.
- Henry, A. (2007). Evaluating language learners' response to web-based, data-driven, genre teaching materials. *English for Specific Purposes*, 26, 462-484.
- Henry, A., & Roseberry, R. L. (2001). Using a small corpus to obtain data for teaching a genre. In M. Ghadessy, A. Henry, & R. L. Roseberry (Eds.), *Small corpus studies and ELT: Theory and practice* (pp. 93-133). Amsterdam: John Benjamins.
- Higgins, J., & Johns, T. (1984). *Computers in language learning*. London: Collins.
- Hiltunen, R. (1990). *Chapters on legal English*. Helsinki: Suomalainen Tiedeakatemia.
- Hill, J. (2000). Revising priorities: From grammatical failure to collocational success. In M. Lewis (Eds.), *Teaching collocation: Further developments in the lexical approach* (pp. 47-67). Hove: Language Teaching Publications.
- Hinkel, E. (2002). Teaching grammar in writing classes: Tenses and cohesion. In E. Hinkel & S. Fotos (Eds.), *New perspectives on grammar teaching in second language classrooms* (pp. 181-198). Mahwah, NJ: Lawrence Erlbaum Associates.
- Hoey, M. (1991a). *Patterns of lexis in text*. Oxford: Oxford University Press.
- Hoey, M. (1997c). From concordance to text structure: New uses for computer corpora. In J. Melia & B. Lewandoska-Tomaszczyk (Eds.), *Proceedings of PALC '97* (pp. 2-23). Lodz: Lodz University Press.
- Hoey, M. (2002). Textual colligation: A special kind of lexical priming. In K. Aijmer and B. Altenberg (Eds.), *Advances in corpus linguistics. Papers from the 23rd International Conference on English Language Research on Computerized Corpora, held on 22-26 May 2002 in Göteborg* (pp. 171-194). Amsterdam and New York: Rodopi.

- Hoey, M. (2003). Lexical priming and the properties of text. Retrieved 24 August 1999, from <http://www.monabaker.com/.../LexicalPrimingandthePropertiesofText.htm>
- Hoey, M. (2003). Why grammar is beyond belief. *Belgian Journal of English Language and Literatures: Special Issue*, 183-196.
- Hoey, M. (2004). The textual priming of lexis. In G. Aston, S. Bernardini, & D. Stewart (Eds.), *Corpora and Language Learners* (pp. 21–41). Philadelphia: John Benjamins.
- Hoey, M. (2005). *Lexical priming*. Oxon: Routledge.
- Hoey, M. (2006). Language as choice: what is chosen? In G. Thompson and S. Hunston (Eds.). *System and corpus: Exploring connections*. London, Oakville: Equinox.
- Hoffmann, S. (2005). *Grammaticalisation and English complex prepositions. A corpus-based study*. London: Routledge.
- Horwitz, E.K. (1988). The beliefs about language learning of beginning university foreign language students. *Modern Language Journal*, 72(3), 283-294.
- Howarth, P. (1996). A phraseological approach to academic writing. In G. Blue (Eds.), *Language learning and success: Studying through English* (pp. 58-69). London: Macmillan.
- Howarth, P. (1998). Phraseology and second language proficiency. *Applied Linguistics*, 19(1), 22-44.
- Howe, P. (1990). The problem of the problem question in English for academic legal purposes. *English for Specific Purposes*, 9, 215-236.
- Hsu, Jeng-yih (2002). Development of collocational proficiency in a workshop on English for general business purposes for Taiwanese college students. Unpublished doctoral dissertation, Indiana University of Pennsylvania, Pennsylvania, USA.
- Hsu, Jeng-yih (2007). *Lexical collocations and their impact on the online writing of Taiwanese college English majors and non-English majors*. Paper presented at the International Conference on English for Specific Purposes, Taipei, Taiwan, May 4th-5th, 2007.
- Hsu, J. T., & C. Chiu. (2008). Lexical collocations and their relation to speaking proficiency. *The Asian EFL Journal Quarterly*, 10 (1), 181-204.
- Hsin-hung, D. L., & Ching-yu, S. H. (2010). The specialised vocabulary of modern patent language: Semantic associations in patent lexis. *The 24th Pacific Asia Conference on Language, Information and Computation (PACLIC 24)*, Tohoku University, Sendai, Japan, November 4-7, 2010.

- Hsueh, S. C. (2003). An analysis of lexical collocational errors in the English compositions of senior high school EFL students. Unpublished master's thesis, National Kaohsiung Normal University.
- Huang, Li-Szu. (2001). Knowledge of English collocations: An analysis of Taiwanese EFL learners. In C. Luke & B. Rubrecht (Eds.), *Texas Papers in Foreign Language Education, Selected proceedings from the Texas Foreign Language Education conference*, 6(1), 113-129.
- Huddleston, R. (1984). *Introduction to the grammar of English*. Cambridge: Cambridge University Press.
- Hulstijn, J. H., & Laufer, B. (2001). Some empirical evidence for the involvement load hypothesis in vocabulary acquisition. *Language Learning*, 51(3), 539-558.
- Hunston, S. (2002). *Corpora in applied linguistics*. Cambridge: Cambridge University Press.
- Hunston, S. (2008). Starting with small words. *International Journal of Corpus Linguistics*, 13(3), 271-295.
- Hunston, S., & G. Francis (2000). *Pattern grammar: A corpus-driven approach to the lexical grammar of English*. Amsterdam and Philadelphia: Benjamins.
- Hutchinson, T., & Waters, A. (1987). *English for specific purposes: A learning-centred approach*. Cambridge: Cambridge University Press.
- Hymes, D. (1972). On communicative competence. In J. B. Pride & J. Holmes (Eds.), *Sociolinguistics* (pp. 269-293). Harmondsworth: Penguin.
- Jabbour, G. (1997). *Corpus linguistics, contextual collocation, and ESP syllabus creation: A text analysis approach to the study of the medical research article*. Unpublished doctoral thesis, University of Birmingham, Birmingham, UK.
- Jabbour, G. (2001). Lexis and grammar in second language reading and writing. In D. Belcher & A. Hirvela (Eds.), *Linking literacies: Perspectives on L2 reading-writing connections* (pp. 291-308). Ann Arbor: University of Michigan Press.
- Jabbour-Lagoeki, J. (1990). *Prepositions of position: An analysis for practical application in the classroom*. Eric Document Reproduction Service No.: 332 509.
- Jackson, H. (2002). *Lexicography: An introduction*. London: Routledge.
- Jackson, S. L. (2003). *Research methods and statistics: A critical thinking approach*. Wadsworth: California, USA.
- Jafarpour, A. A. & Sharifi, A. (2012). The effect of error correction feedback on the collocation competence of Iranian EFL learners. *Teaching English with Technology*, 12(3), 3-17.

- Jafarpour, A. A., Hashemian, M., & Alipour, S. (2013). A corpus-based approach toward teaching collocation of synonyms. *Theory and Practice in Language Studies*, 3 (1), 51-60.
- Jakobovits, L. (1970). *Foreign language learning: A psycholinguistic analysis of the issue*. Rowley, MA: Newbury House.
- James, C. (1998). *Errors in language learning and use: Exploring error analysis*. London: Longman.
- Jarvis, H. (2004). Investigating the classroom applications of computers on EFL courses at higher education institutions in UK. *Journal of English for Academic Purposes*, 3, 111-137.
- Jarvis, S., & Odlin, T. (2000). Morphological type, spatial reference, and language transfer. *Studies in Second Language Acquisition*, 22, 535-556.
- Jeng, H-S (2006). A contrastive analysis of three types of English and Chinese collocations. *Proceedings of the 15th Symposium on English Teaching* (pp.103-118). Crane: Taipei, Taiwan.
- Johansson, S. (1995). The approach of the text encoding initiative to the encoding of spoken discourse. In G. Leech, G. Myers and J. Thomas (Eds.), *Spoken English on Computer* (pp. 82-98). Harlow: Longman.
- Johns, T. (1991a). Should you be persuaded: Two samples of data-driven learning materials. *English Language Research Journal (New Series)*, 4, 1-16.
- Johns, T. (1991b). From printout to handout: Grammar and vocabulary teaching in the context of data-driven learning. *English Language Research Journal (New Series)*, 4, 27-45.
- Johns, T. (1993). Data-driven learning. An update. *TELL & CALL*, 2, 4-10.
- Johns, T. (1997a). Contexts: The background, development and trialling of a concordance-based CALL Program. In A. Wichmann, S. Fligelstone, T. McEnery & G. Knowles (Eds.), *Teaching and language corpora* (pp. 100-115). Harlow: Addison Wesley Longman.
- Johns, T. (2002). Data-driven learning: The perpetual challenge. In B. Kettermann and G. Marko (Eds.), *Teaching and learning by doing corpus linguistics* (pp. 107-117). Amsterdam: Rodopi.
- Johns, T., & King, P. (1991). Classroom concordancing. In T. Johns & P. King (Eds.), *English Language Research Journal*, 4, 17-25.
- Jones, A., & McCracken, S. (2006). *Teaching the discourse of legal risk to finance professionals: Preliminary steps and emerging issues in developing a linguistically scaffolded curriculum*. Retrieved 13 February 2010, from [http://www.ling.mq.edu.au/about/staff/jones_alan/FV paper 15 Sept 06.pdf](http://www.ling.mq.edu.au/about/staff/jones_alan/FV%20paper%2015%20Sept%2006.pdf)

- Jordan, R. R. (1997). *English for academic purposes: A guide and resource books for teachers*. Cambridge: Cambridge University Press.
- Jordan, R. R. (1999). *Academic writing course* (3rd ed.). London: Longman.
- Kamakura, Y. (2011). Collocation and preposition sense: A phraseological approach to the cognition of polysemy. Unpublished doctoral thesis, University of Birmingham, Birmingham, UK.
- Kaszubski, P. (2000). Selected aspect of lexicon, phraseology, and style in the writing of Polish advanced learners of English: A contrastive, corpus-based. Unpublished doctoral thesis, Adam Mickiewicz University, Poznań, Poland.
- Kavaliauskiene, G. (2005) Testing literacy at tertiary level: A case study. *Journal of Language and Learning*, 3(2), 300-311.
- Kavaliauskienė, G. & Anusienė, L. (2010). Online reading and writing in English for specific purposes classes. *Studies about Languages*, 1(7), 99-104.
- Keller, E. (1981). Gambits: Conversational strategy signals. In C. Florian (Eds.), *Conversational routine: Explorations in standardized communicative situations and pre-patterned speech* (pp. 93-113). New York: Mouton.
- Kellerman, E. (1979). Transfer and non-transfer: Where we are now? *Studies in Second Language Acquisition*, 2, 37-57.
- Kennedy, C., & Miceli, T. (2001). An evaluation of intermediate students' approaches to corpus investigation. *Language Learning and Technology*, 5(3), 77-90.
- Kern, R. (2006). Perspectives on technology in learning and teaching languages. *TESOL Quarterly*, 40(1), 183-210.
- Keshavarz, M. H. (1993). *Contrastive analysis and error analysis*. Tehran: Rahnama Publication.
- Kharm, N., & Hajjaj, A. (1997). *Errors in English among Arabic speakers*. Beirut: Librairie du Liban.
- Khobandeh, F. (2007). Analysis of student's errors: The case of headlines. *The Asian EFL Journal*, 3(1), 6-21.
- Kilgariff, A. (1997). I don't believe in word senses. *Computers and the Humanities*, 3, 91-113.
- King, A., & Rosenshine, B. (1993). Effect of guided cooperative question on children's knowledge construction. *Journal of Experimental Education*, 61(2), 127-148.
- King, A. (1991). Effects of training in strategic questioning on children's problem solving programme. *Journal of Educational Psychology*, 83(3), 307-317.

- King, A. (1992). Facilitating learning through guided student-generated questioning. *Journal of Educational Psychology*, 27(1), 111-121.
- Kirschner, P., Sweller, J., & Clark, R. (2006). Why minimal guidance during instruction does not work: An analysis of the failure of constructivist, discovery, problem-based, experiential, and inquiry-based teaching. *Educational Psychologist*, 41(2), 75-86.
- Kjaer, A. L. (2007). Phrasemes in legal texts. In H. Burger (Eds.), *Phraseology: An international handbook of contemporary research* (pp. 506-616). Germany: Walter de Gruyter & Company.
- Kolb, A., & Kolb, D.A. (2009). The learning way: Meta-cognitive aspects of experiential learning: Simulation and gaming. *An Interdisciplinary Journal of Theory, Practice and Research*, 40(3), 297-327.
- Koosha, M., & Jafarpour, A. A. (2006). Data-driven learning and teaching collocation of prepositions: The case of Iranian EFL adult learners. *Asian EFL Journal*, 8, 1-13.
- Kopaczyk, J. (2008). *Multi-word units of meaning in 16th-century legal Scots*. Retrieved 24 May 2009, from <http://www.lingref.com/cpp/hel-lex>.
- Kotrlik, J.W., Williams, H. A., & Jabor, M. Khata. (2011). Reporting and interpreting effect size in quantitative agricultural education research. *Journal of Agricultural Education*, 52(1), pp. 132–142. doi: 10.5032/jae.2011.01132
- Krois-Lindner, A. (2006). *International legal English*. Cambridge: Cambridge University Press.
- Kyosung, K. (2006). *Effects of using corpora and online reference tools on foreign language writing: A study of Korean learners of English as a second language*. Unpublished doctoral dissertation, University of Iowa, USA.
- Lamy, M-N., & Klarskov Mortensen, J. (2007). Using concordance programs in the modern foreign languages classroom. Module 2.4. In G. Davies (Eds.), *Information and communication technology for language teachers (ICT4LT)*, Slough, Thames Valley University. Retrieved 12 September 2009, from http://www.ict4lt.org/en/en_mod_2-4.htm.
- Lantolf, J. P., & Thorne, S. L. (2006). *Sociocultural theory and the genesis of second language development*. Oxford: Oxford University Press.
- Laufer, B. (1997). What's in a word that makes it hard or easy: Some intralexical factors that affect the learning of words. In N. Schmitt & M. McCarthy (Eds.), *Vocabulary: Description, acquisition, and pedagogy* (pp. 140-155). Cambridge: Cambridge University Press.
- Laufer, B. (2006). Comparing focus on form and focus on formS in second language vocabulary learning. *Canadian Modern Language Review*, 63, 149-166.

- Leckie-Tarry, H. (1993). The specification of a text: Register, genre and language teaching. In Ghadessy, M. (Eds.), *Register analysis: Theory and practice* (pp. 26–42). London; New York: Pinter Publishers.
- Lee, C-Y., & Liou, H-C. (2003). A study of using web concordancing for English vocabulary learning in a Taiwanese high school context. *English Teaching and Learning*, 27(3), 35-56.
- Lee, D. (2001). *Cognitive linguistics: An introduction*. Oxford: Oxford University Press.
- Lee, D. Y. W., & Swales, J. M. (2006). A corpus-based EAP course for NNS doctoral students: Moving from available specialised corpora to self-compiled corpora. *English for Specific Purposes*, 25, 56–75.
- Leech, G. (1991). The state of the art in corpus linguistics. In K. Aijmer & B. Altenberg (Eds.), *English corpus linguistics* (pp. 8-29). London: Longman.
- Leech, G. (1997). Teaching and language corpora: A convergence. In A. Wichmann, S. Fligelstone, T. McEnery, & G. Knowles (Eds.), *Teaching and Language Corpora* (pp. 1-23). Harlow: Addison Wesley Longman.
- Leki, I. (1995). *Academic writing: Exploring processes and strategies*. New York: St Martin's Press.
- Leroy, G., Chen, H., & Martinez, J.D. (2003). A shallow parser based on closed-class words to capture relations in biomedical text. *Biomedical Informatics*, 36, 145–158.
- Leung, C. (2005). Convivial communication: Recontextualizing communicative competence. *International Journal of Applied Linguistics*, 15(2), 119-144.
- Lewis, M. (1993). *The lexical approach: The state of ELT and a way forward*. London: Language Teaching Productions.
- Lewis, M. (1997). *Implementing the Lexical Approach: Putting theory into practice*. Hove: Language Teaching Productions.
- Lewis, M. (2000). Language in the Lexical Approach. In M. Lewis (Eds.), *Teaching collocation: Further developments in the Lexical Approach* (pp.126-154). Hove: Language Teaching Productions.
- Lien, H-Y. (2003). *The effects of collocation instruction on the reading comprehension of Taiwanese college students*. Unpublished doctoral dissertation, Indiana University Of Pennsylvania, Pennsylvania, USA.
- Lin, X., & Lehman, J.D. (1999). Supporting learning of variable control in a computer-based biology environment: Effects of prompting college students to reflect on their own thinking. *Journal of Research in Science Thinking*, 36 (7), 837-858.

- Lindstromberg, S. (1998). *English prepositions explained*. Amsterdam: Benjamin.
- Littlefield, H. A. (2006). Syntax and acquisition in the prepositional domain: Evidence from English for fine-grained syntactic categories. Unpublished doctoral thesis, Boston University, Boston, USA.
- Littlefield, H. A. (2011). Lexical and functional prepositions in acquisition: Evidence for a hybrid category. Retrieved 22 April, 2012 from <http://www.bu.edu/buclid/files/2011/05/29-LittlefieldBUCLD2004.pdf>
- Liu, C. P. (1999a). A study of Chinese culture university freshmen's collocational competence: Knowledge as an example. *Hwa Kang Journal of English Language and Literature*, 5, 81-99.
- Liu, C. P. (2000a). An empirical study of collocation teaching. *Proceedings of the Seventeenth Conference on English Teaching and Learning in the Republic of China* (pp. 165-178). Taipei: Crane.
- Liu, C. P. (2000b). *A study of strategy use in producing lexical collocations*. Paper presented at the Tenth International Symposium on English Teaching (pp. 481-492). Taipei: Crane.
- Longman Dictionary of Contemporary English: The Complete Guide to Written and Spoken English (LDOC) (3rd ed.).(1995). London: Longman.
- Longman Dictionary of Contemporary English for Advanced Learners (5th ed.). (2009). London: Pearson-Longman.
- Macko, D. (2012). The use of software for the analysis of lexical properties of legal discourse. *Studies About Languages*, 20, 19-26. Retrieved 21 January, 2012 from <http://dx.doi.org/10.5755/j01.sal.0.20.1190>
- Mahlberg, A. (2006). Lexical cohesion: Corpus linguistic theory and its application in English language teaching. *International Journal of Corpus Linguistics*, 11(3), 363-383.
- Mair, C. (2002). Empowering non-native speakers: The hidden surplus value of corpora in continental English departments. In B. Kettemann & G. Marko (Eds.), *Teaching and learning by doing corpus analysis* (pp. 119-127). Amsterdam and New York: Rodopi.
- Mahmoud, A. (2005). Collocation errors made by Arab learners of English. *Asian EFL Journal*, 5 (2), 117-126. Retrieved 10 February 2008, from http://www.asian-efl-journal.com/pta_August_05_ma.php
- Malaysian Qualifications Agency (MQA). (2009).
- Marco, M. J. L. (2000). Collocational framework in medical research papers: A genre-based study. *English for Specific Purposes*, 19(1), 63-86.

- Master, P. (2005). Research in English for specific purposes. In E. Hinkel (Eds.), *Handbook of research in second language teaching and learning* (pp. 99-115). Mahwah: Lawrence Erlbaum.
- Matthiessen, C.M.I.M. (1993). Register in the round: Diversity in a unified theory of register analysis. In M. Ghadessy (Eds.), *Register analysis: Theory and practice* (pp. 221-292). London: Pinter.
- Matthiessen, C.M.I.M., & Halliday, M.A.K. (1997). Systemic functional grammar: A first step into the theory. *Working paper*, Macquarie University, Australia. Retrieved 22 August, 2011 from http://www.minerva.ling.mq.edu.au/Resources/VirtualLibrary/Publications/sfg_firststep/SFG%20intro%New.html
- Mauranen, A. (2004b). Spoken corpus for an ordinary learner. In J. M. Sinclair (Eds.), *How to use corpora in language teaching* (pp. 89-105). Amsterdam: John Benjamins.
- McCarthy, M. (2001). *Issues in applied linguistics*. Cambridge: Cambridge University Press.
- McCarthy, M. J., & Carter, R.A. (1995). Spoken grammar: What is it and how do we teach it? *ELT Journal*, 49(3), 207-218.
- McEnery, T., & Wilson, A. (2001). *Corpus linguistics: An introduction* (2nd ed.). Edinburgh: Edinburgh University Press.
- McEnery, T., Xiao, R. & Tono, Y. (2006). *Corpus-based language studies: An advanced resource book*. London/New York: Routledge.
- Mei, W. S., Tupas, T. R. F., Shenfa, Z., Blackstono, B., Chan, P., Deng, X., et al. (2008). Students' written errors: A summary of a preliminary result. *SAAL Quarterly*, 83. Retrieved 20 July 2010, from <http://www.saal.org.sg/sq83.pdf>.
- Mel'cuk, I. (1998). Collocations and lexical functions. In A.P. Cowie (Eds.), *Phraseology: Theory, analysis, and applications* (pp. 23-53). Oxford: Clarendon.
- Mellinkoff, D. (1963). *The language of the law*. Boston: Little Brown Co.
- Mendelsohn, D., & Cumming, A. (1987). Professors' ratings of language use and rhetorical organization in ESL compositions. *TESL Canada Journal*, 5, 9-26.
- Meunier, F. (2002). The pedagogical value of native and learner corpora in EFL grammar teaching. In S. Granger, J. Hung, & S. Petch-Tyson (Eds.), *Computer learner corpora, second language acquisition and foreign language teaching* (pp. 119-142). Amsterdam and Philadelphia: John Benjamins.

- Ministry of Higher Education, Malaysia (MoHE) (2006). *Towards excellence. Report by the committee to study, review and make recommendations concerning the development and direction of higher education in Malaysia*. Kuala Lumpur: Univision Press Sdn. Bhd.
- Mishan, F. (2004). Authenticating corpora for language learning: A problem and its resolution. *ELT Journal*, 58 (3), 219-227.
- Mitchell, T.F. (1971). Linguistic 'goings-on': Collocations and other lexical matters arising on the syntagmatic record. *Archivum Linguisticum*, 2, 35-69.
- Mitchell, T.F. (1975). *Principles of Firthian linguistics*. London: Longmans.
- Mkhatshwa, E.J. (2007). Grammatical analysis: Its role in the reading of legal texts. Unpublished doctoral thesis, University of Zululand, South Africa. Retrieved 14 March 1999, from [http://196.21.83.35/bitstream/handle/10530/348/Grammatical analysis](http://196.21.83.35/bitstream/handle/10530/348/Grammatical%20analysis).
- Mohd Majid Konting. (2004). *Kaedah Penyelidikan*. Kuala Lumpur: Dewan Bahasa dan Pustaka.
- Moon, R. (1994). The analysis of fixed expressions in text. In M. Coulthard (Eds.), *Advances in Written Text Analysis* (pp. 117-135). London: Routledge.
- Moon, R. (1997). Vocabulary connections: Multi-word items in English. In N. Schmitt & M. McCarthy (Eds.), *Vocabulary: Description, acquisition and pedagogy* (pp. 140-155). Cambridge: Cambridge University Press.
- Mueller, C. M. (2011). English learners' knowledge of prepositions: Collocational knowledge or knowledge based on meaning? *System: An International Journal of Educational Technology and Applied Linguistics*, 39 (4), 480-490.
- Mukherjee, J. (2004). Bridging the gap between applied corpus linguistics and the reality of English language teaching in Germany. In U. Connor & T. Upton (Eds.), *Applied corpus linguistics: A multidimensional perspective* (pp. 239-250). Amsterdam: Rodopi.
- Mukherjee, J. (2006). Corpus linguistics and language pedagogy: The state of the art – and beyond. In S. Braun, K. Kohn & J. Mukherjee (Eds.), *Corpus technology and language pedagogy: New resources, new tools, new methods* (pp. 5-24). Frankfurt: Peter Lang.
- Mukundan, J., & Norwati Roslim. (2009). Textbook representation of prepositions. *English Language Teaching*, 2(4), 13-34.
Retrieved 22 September, 2013, from <http://www.ccsenet.org/journal/index.php/elt/article/view/4440>.
- Murphy, R. (2000). *Grammar in use: Self-study reference and practice for students of English*. Cambridge: Cambridge University Press.

- Murphy, E. (2001). A review of the use of technology in second-language learning. *Journal of Immersion Ontario: Canadian Association of Immersion Teachers*, 23(2), 10-15.
- Murphy, B., & Hastings, A. (2006). The utter hopelessness of explicit grammar teaching. *The International Journal of Foreign Language Teaching*, 2(2), 9-11.
- Nation, I.S.P. (2001). *Learning vocabulary in another language*. Cambridge: Cambridge University Press.
- Nation, I.S.P. (2005). Teaching and learning vocabulary. In E. Hinkel (Eds.), *Handbook of research in second language teaching and learning* (pp. 581-596). Mahwah, New Jersey and London: Lawrence Erlbaum Associates.
- Nattama Pongpairroj. (2002). Thai university undergraduates' errors in English writing. *Journal of Languages and Linguistics*, 20(2), 66-99.
- Nattinger, J., & DeCarrico, J. (1992). *Lexical phrases and language teaching*. Oxford: Oxford University Press.
- Nemser, W. (1971). Approximative systems of foreign language learners. *IRAL*, 9(2), 115-124.
- Nesselhauf, N. (2003). The use of collocations by advanced learners of English and some implications for teaching. *Applied Linguistics Journal*, 24, 223-240.
- Nesselhauf, N. (2005). *Collocations in a learner corpus*. Amsterdam: John Benjamins.
- Neuman, W. L. (2000). *Social research methods: Qualitative and quantitative approaches* (4th ed.). Massachusetts: Allyn & Bacon.
- Nikoletta, R. (2010). A study of classroom concordancing in the Greek context: Data-driven grammar teaching and adolescent EFL learners. Unpublished doctoral thesis, University of Nottingham, Nottingham, UK.
- Noraini Ibrahim. (1997). Understanding the reading of legal cases. *ESP Malaysia*. Department of Modern Languages, University of Technology Malaysia (UTM), Johor, Malaysia, 5(1), 15-28.
- Norwati Roslim., & Mukundan, J. (2011). An overview of corpus linguistics studies on preposition. *English Language Teaching Journal*, 4(2), 125-131.
- Nunan, D. (1995). *Atlas: Learning-centered communication: Student's Book 1*. Boston: Heinle & Heinle.
- Nunan, D. (1999). Second language teaching and learning. *Journal of Languages and Linguistics*, 20(2), 66-99.
- Nuraihan Mat Daud., & Abusa', N. A. K. (1999). Teaching prepositions using a concordancer. *The English Teacher*, XXVIII, 49-57.

- Nur Muhammad Insan Jalil., & Mohd Fauzi Kamarudin. (2009). ELAP needs analysis for law students. *Journal of Human Capital Development*, 2(2), 121-136.
- O'Keefe, A., McCarthy, M., & Carter, R. (2007). *From corpus to classroom: Language use and language teaching*. Cambridge: Cambridge University Press.
- O'Sullivan, Í. (2007). Enhancing a process-oriented approach to literacy and language learning: The role of corpus consultation literacy. *ReCALL*, 19(3), 269-286.
- O'Sullivan, Í., & Chambers, A. (2006). Learners' writing skills in French: Corpus consultation and learner evaluation. *Journal of Second Language Writing*, 15(1), 49-68.
- Odlin, T. (1989). *Language transfer*. Cambridge, New York: Cambridge University Press.
- Odlin, T. (1994). Introduction. In T. Odlin (Eds.), *Perspectives on pedagogical grammar* (pp. 1-22). Cambridge: Cambridge University Press.
- Official Journal of the European Union*. (2006). Retrieved 10 October, 2012 from <http://eur-lex.europa.eu/JOIndex.do>
- Oxford, R. L., Hollaway, M.E., & Horton-Murillo, D. (1992). Language learning styles: Research and practical considerations for teaching the multicultural tertiary ESL/EFL classroom. *System*, 20(4), 439 – 456.
- Oxford Advanced Learners' Dictionary. International Student's Edition and CD-ROM with Oxford iWriter (Turnbull, J., Lea, D., Parkinson, D., Phillips, P., Ben & Francis, B., et al. (Eds.). (2011). Oxford: Oxford University Press.
- Palmberg, R. (1978). Investigating communication strategies. In Palmberg, R. (Eds.), *Perception and production of English: Papers on interlanguage* (pp. 33-75). Abo: Abo Akademi.
- Partington, A. (1988). *Patterns and meanings*. Amsterdam: Benjamin.
- Partington, A. (1996). *Patterns and meaning: Using corpora for English language research*. Amsterdam: John Benjamin Publishing Company.
- Pawley, A., & Syder, F. (1983). Two puzzles for linguistic theory: Native-like selection and native-like fluency. In J. C. Richards & R. Schmidt (Eds.), *Language and Communication* (pp. 191-226). London: Longman.
- Payne, J. S. (2008). Data-driven South Asian language learning. Retrieved 30 April 2010, from <http://salrc.uchicago.edu/workshops/sponsored/061005/DDL.ppt>.
- Pearson, J. (1998). *Terms in context*. Amsterdam: John Benjamins.

- Pérez-González, L. (1999). Getting to grips with legal English: An emergent field of ESP instruction in higher education. *IATEFL ESP SIG Newsletter*, 14. Retrieved 12 July 2009, from <http://www.unav.es/espSig/gonzalez14.htm>
- Pérez-Paredes, P., & Bedmar, B. D. (2009). Language corpora and the language classroom. Retrieved 7 August 1999, from <http://www.slideshare.net/perezparades/language-corpora-and-the-language-classroom>.
- Polezzi, L. (1994). Concordancers in the design and implementation of foreign language courses. *Computers and Education*, 23(1), 89-96.
- Pongpairoj, N. (2002). Thai university undergraduates' errors in English writing. *Journal of Language and Linguistics*, 20, 66-99.
- Pongsiriwet, C. (2001). Relationships among grammatical accuracy, discourse features, and the quality of second language writing. Unpublished doctoral thesis, West Virginia University, Virginia, USA.
- Ponniah, R. J. (2009) Form-focused instruction and the learning experience of adult ESL students. *Modern Journal of Applied Linguistics*, 1(6), 382-391.
- Quirk, R., Greenbaum, S., Leech, G. N., & Svartvik, J. (1972). *A grammar of contemporary English*. London: Longman.
- Quirk, R., Greenbaum, S., Leech, G. N., & Svartvik, J. (1985). *A comprehensive grammar of the English language (general grammar)*. Harlow: Longman.
- Quirk, R., Greenbaum, S., Leech, G. N., & Svartvik, J. (1989). *A comprehensive grammar of the English language*. London: Pearson Education Limited.
- Rankin, T., & Schiffner, B. (2009). The use of marginal and complex prepositions in learner English. In Mahlberg, M., V. González-Díaz, & C. Smith (Eds.). *Proceedings of the Corpus Linguistics Conference, University of Liverpool, 20-23 July 2009*. Retrieved 20 February 2012, from <http://www.ucl.ac.uk/publications/cl2009/>.
- Rapti, N. (2010). A study of classroom concordancing in the Greek context: Data-driven grammar teaching and adolescent EFL learners. Unpublished doctoral thesis, University of Nottingham, Nottingham, UK.
- Rapti, N. (2013). Data-driven grammar teaching and adolescent EFL learners in Greece. *Corpus Linguistics and Variation in English: Focus on Non-Native Englishes*, 13, Retrieved 21 February 2012, from <http://www.helsinki.fi/varieng/series/volumes/13/rapti/>
- Raymond, E. (2000). *Cognitive characteristics: Learners with mild disabilities*. Needham Heights, Massachusetts: Allyn & Bacon.

- Rauh, G. (1993). On the grammar of lexical and non-lexical prepositions in English. In C. Zelinsky-Wibbelt (Eds.), *The semantics of prepositions: From mental processing to natural language processing* (pp. 99-150). Berlin, Germany: Mouton de Gruyter.
- Rea, C. (2010). Getting on with corpus compilation: From theory to practice. *ESP World*, 1(27), 1-23.
- Read, J. (2000). *Assessing vocabulary*. Cambridge: Cambridge University Press.
- Renouf, A. (1997). Teaching corpus linguistics to teachers of English. In A. Wichmann, S. Fligelstone, T. McEnery, & G. Knowles (Eds.), *Teaching and language corpora* (pp. 255-266). London: Longman.
- Renouf, A. J., & Sinclair, J. M. (1991). Collocational frameworks in English. In K. Aijmer & B. Altenberg (Eds.), *English corpus linguistics: Studies in Honour of Jan Svartvik* (pp. 128-143). London and New York: Longman.
- Richards, J. C. (1971a). Error analysis and second language strategies. *Language Sciences*, 17, 12-22.
- Richards, J. C. (1971b). A non-contrastive approach to error analysis. *English Language Teaching Journal*, 25, 204-219.
- Richards, J. C. (1974). Social factors, interlanguage and language learning. In J. C. Richards (Eds.), *Error analysis: Perspectives on second language acquisition* (pp. 64-94). London: Longman.
- Richards, J. C. (1998). *Beyond training*. New York: Cambridge University Press.
- Richards, J. C. (2006). *Communicative language teaching today*. Cambridge: Cambridge University Press.
- Richards, J. C. & Rogers, T. S. (1986). *Approaches and methods in language teaching: A description and analysis*. Cambridge, UK: Cambridge University Press.
- Richards, J. C., & Sampson, G. P. (1974). The study of learner English. In J. C. Richards (Eds.), *Error analysis: Perspectives on second language acquisition* (pp. 3-18). London: Longman.
- Roberts, P. (1954). *University grammar*. New York: Longmans Group Ltd.
- Roulet, E. (1975). *Linguistic theory, linguistic description, and language teaching*. London: Longman.
- Römer, U. (2008). *Corpora and language teaching*. Retrieved 22 October 2009, from www.utoeroemer.com/HSK_Roemer_uncorrected_proofs.pdf.

- Rüschhoff, B. (2003). *Construction of knowledge as the basis of foreign language learning*. Retrieved 20 July 2010, from <http://www.uni-essen.de/anglistik/bernd/construction.htm>.
- Russel, J. D. (1974). *Modular instruction: A Guide to the design, selection, utilisation and evaluation of modular materials*. New York: Publishing Company.
- Rutherford, W. E. (1987). *Second language grammar: Learning and teaching*. New York: Longman.
- Saengchan, H., & Schmitt, N. (2005). An analysis of lexical errors in the English compositions of Thai learners. *Prospect*, 21 (3), 3-25. Retrieved 24 September 1999, from <http://www.readingmatrix.com/conference/pp/proceedings2005/chuang.pdf>.
- Salaberry, M. R. (2001). The use of technology for second language learning and teaching: a retrospective. *Modern Language Journal*, 85(1), 39–56.
- Salaberry, M. R. (2005). The use of technology for second language learning and teaching: A retrospective. In Y. Zhao (Eds.), *Research in technology and second language learning: Developments and directions* (pp. 61-91). Greenwich, Connecticut: Information Age Publishing.
- Santos, T. (1988). Professors' reactions to the writing of nonnative-speaking students. *TESOL Quarterly*, 22(1), 69-90.
- Scardamalia, M., Bereiter, C., & Steinbach, R. (1984). Teachability of reflective processes in written composition, *Cognitive Science*, 8, 173-190.
- Schmidt, R. (1990). The role of consciousness in second language learning. *Applied Linguistics*, 11, 129-158.
- Schmidt, R. (2001). Attention. In P. Robinson (Eds.), *Cognition and second language instruction* (pp. 3-32). Cambridge: Cambridge University Press.
- Schmied, J. (2001). *Learning English Preposition in the Chemnitz Internet Grammar*. Retrieved 11 February 2009, from tu-hemnitz.de/phil/english/.../publications/Louvain01.pdf.
- Schmitt, N. (2000). *Vocabulary in language teaching*. Cambridge: Cambridge University Press.
- Scott, M., & Tribble, C. (2006). *Textual Patterns: Key words and corpus analysis in language education*. Philadelphia: John Benjamins.
- Seidlhofer, B. (2000). Going non-native? Do we need a new model for teaching EFL? *ELT News*, 42, 61-68.
- Selinker, L. (1972). Interlanguage. *International Review of Applied Linguistics (IRAL)*, 10, 209-231.

- Seymour, E. (2002). Euro-English: The New Pidgin? *Terminologie et traduction*, 3, 22-32.
- Siavosh, H.A. (2001). A study of the learning of lexical and grammatical collocations by Iranian EFL learners. *Language and Literature*, 187, 45-60.
- Sicherl, E. (2004). On the content of prepositions in prepositional collocations, *ELOPE*, 1(1-2), 37-46.
- Sinclair, J. M. H. (1966). Beginning the study of lexis. In C.E. Bazell, J.C. Catford, M.A.K. Halliday, & R.H. Robins (Eds.), *In Memory of J.R. Firth* (pp. 410-430). London: Longmans.
- Sinclair, J. M. H. (1987). Collocation: A progress report. In R. Steele & T. Threadgold (Eds.), *Language topics: Essays in Honour of Michael Halliday* (vol. 2) (pp. 319-331). Amsterdam: John Benjamins.
- Sinclair, J. M. (1988). Sense and structure in lexis. In J. D. Benson, M. J. Cummings, & W.S. Greaves (Eds.), *Linguistics in a systemic perspective* (pp. 73-97). Amsterdam: John Benjamins.
- Sinclair, J. M. H. (1991). *Corpus, concordance, collocation*. Oxford University Press: Oxford
- Sinclair, J. M. H. (1996). The search for units of meaning. *Textus*, 9(1), 75-106.
- Sinclair, J. M. H. (1997). Corpus evidence in language description. In Wichmann, A., S. Fligelstone, T. McEnery, & G. Knowles (Eds.), *Teaching and language corpora* (pp. 27-39). New York: Addison Wesley Longman.
- Sinclair, J. M. H. (1998). The lexical item. In E. Weigand (Eds.), *Contrastive lexical semantics* (pp. 1-24). Amsterdam: John Benjamins.
- Sinclair, J. M. H. (2004a). Trust the text. In Sinclair, J. M. H. & R. Carter (Eds.), *Trust the text: Language, corpus and discourse* (pp. 9-23). London: Routledge.
- Sinclair, J. M. H. (2004c). New evidence, new priorities, new attitudes. In Sinclair, J. M. H. (Eds.), *How to use corpora in language teaching* (pp. 271-300). Amsterdam: John Benjamins.
- Sinnadurai, V. (2003). *Law of contract in Malaysia and Singapore: Cases and commentary* (vol. 1). Oxford: Oxford University Press.
- Sinnadurai, V. (2003). *Law of contract in Malaysia and Singapore: Cases and commentary* (vol. 2). Oxford: Oxford University Press.
- Smith, S. (2009). *Corpora in the classroom: Data-driven learning for freshman English*. Retrieved 1 January 2010, from http://www.nccu.edu.tw/_smithsgj/Corpora.

- Smith, S. (2011). Learner construction of corpora for general English in Taiwan. *Computer Assisted Language Learning*, 24(4), 291-316.
- Someya, Y. (2000). *Online business letter corpus KWIC concordancer and an experiment in data-driven learning/writing*. Paper presented at the 3rd Association for Business Communication International Conference at Doshisha University, Kyoto, Japan. Retrieved 12 July 2009, from http://www.cl.aoyama.ac.jp/_someya/DDW_Report.html.
- Spada, N. (1997). Form-focused instruction and second language acquisition: A review of classroom and laboratory research. *Language Teaching*, 30, 73-87.
- Spencer, A. (1980). *Noun-verb expressions in legal English*. Birmingham: Language Studies Unit, University of Aston, Birmingham, UK.
- Sripicharn, P. (2004). Examining native speakers' and learners' investigation of the same concordance data and its implications for classroom concordancing with EFL Learners. In G. Aston, S. Bernardini, & D. Stewart (Eds.), *Corpora and language teaching* (pp. 233-245). Amsterdam & Philadelphia: John Benjamins.
- St. John, E. (2001). A case for using a parallel corpus and concordancer for beginners of a foreign language. *Language Learning and Technology*, 5(3), 185-203.
- Stevens, V. (1991). Concordance-based vocabulary exercises: A viable alternative to gap-fillers. In T. Johns, & P. King (Eds.), *Classroom concordancing* (pp. 47-63). Birmingham: University of Birmingham.
- Stevens, P. (1969). *Two ways of looking at error analysis*. Eric Document Reproduction Service No.: 037 714.
- Stuart, K., & Trelis, A. B. (2006). Collocation and knowledge production in an academic discourse community. In M. Carmen, P. L. Auría, R. P. Alastrué, & C. P. Neumann (Eds.), *Proceedings of the 5th International AELFE Conference* (pp. 238-245). Zaragoza, Prensas: The University of Zaragoza, Spain.
- Stubbs, M. (1996). Collocations and semantic profiles: On the cause of the trouble with quantitative studies. *Functions of Language*, 2(1), 23-55.
- Suad Awab. (1999). *Multi-word units in a corpus-based study of memoranda of understanding: Modal multi-word units*. Unpublished doctoral thesis, University of Lancaster, UK.
- Sullivan, G. M., & Feinn, R. (2012). Using Effect Size—or Why the *P* Value Is Not Enough. *Journal of Graduate Medical Education*, 4(3), 279-282. doi: 10.4300/JGME-D-12-00156.1
- Sun, Y-C. (2003). Learning process, strategies, and web-based concordancers. A case-study. *British Journal of Educational Technology*, 34(5), 601-613.

- Sun, Y-C. (2007). Learner perceptions of a concordancing tool for academic writing. *Computer Assisted Language Learning*, 20 (4), 323-343.
- Swales, J. M. (1990). *Genre analysis*. Cambridge: Cambridge University Press.
- Swales, J. M., & Bhatia, V. K. (1982). Special issues on legal English. *English for Specific Purposes Newsletters*, 67 & 68, 1-12.
- Tadros, A.A. (1986). Law cases as input to ESP materials. *ESPMENA Bulletin*, 21, 22-34.
- Tahaineh, Y.S. (2006). Arab EFL university students' errors in the use of prepositions. *International Journal of Arabic-English Studies*, 1 (1), 133-156.
- Taiwo, R. (2004). Helping ESL learners to minimise collocation errors. *The Internet TESL Journal*, 10 (4), 2004. Retrieved 20 February 2009, from <http://www.iteslj.org>.
- Tang, B. (2004). Collocation errors in the intermediate EFL learners' interlanguage. *Sino-US English Teaching*, 1(12), 39- 47.
- Tang, Y-T (2004). *A study of the collocation errors in the oral and written production of the college students in Taiwan*. Unpublished master's thesis, National Taiwan Normal University, Taiwan.
- Taylor, J. (1993). Prepositions: Patterns of polysemization and strategies of disambiguation. In C. Zelinsk-Wibbelt (Eds.), *Natural language processing: The semantics of prepositions* (vol. 3) (pp.151-175). The Hague: Mouten de Gruyter.
- Teubert, W., & Cermakova, A. (2007). *Corpus linguistics: A short introduction*. London: Continuum.
- Thang, S. M., & Wong, F. F. (2005). Teaching styles of Malaysian ESL instructors: An investigation into current practices and implications to English Language Teaching. *Journal of Language Teaching, Linguistics, and Literature*, 10, 49-64.
- Thompson, G. (1996). *Introducing functional grammar*. London: Arnold.
- Thompson, P. (2002). What use are corpora in the teaching of EAP. In A. Cresswell, S. Bernardini, & G. Aston (Eds.), *Proceedings of the Fifth Teaching and Language Corpora Conference* (5th ed.) (pp. 71-72). Bertinoro, Italy: University of Bologna.
- Thorne, S. (1997). *Mastering English language*. Basingstoke: Palgrave Macmillan.

- Walsh, S. (2006). *Investigating classroom discourse*. London: Routledge.
- Wang, C.S. (2001). A study of the English collocational competence of English majors in Taiwan. Unpublished master's thesis, Fu Jen Catholic University, Taiwan.
- Wang, H-C (2005). The relationship between EFL learners' depth of vocabulary knowledge and oral collocational errors. Unpublished master's thesis, National Taiwan Normal University, Taiwan.
- Wu, L-H. (2005). A study of English verb-noun collocational knowledge of technological university English majors in Taiwan. Unpublished master's thesis, National Kaohsiung First University of Science and Technology, Kaohsiung, Taiwan.
- Wardhaugh, R (1970). The contrastive analysis hypothesis. *TESOL Quarterly*, 4, 123-130.
- Webb, S. & Kagimoto, E. (2009). The effects of reading and writing on word knowledge. *Studies in Second Language Acquisition*, 27, 33-52.
- Weber, J. (2001). A concordance and genre-informed approach to EAP essay writing. *ELT Journal*, 55(1), 14-20.
- Wei, L. (2010). Specifying context: A way to decoding legal language. *The Asian ESP Journal [Special Edition]* (pp. 58-68).
- Weigle, S. C. (2002). *Assessing writing*. Cambridge: Cambridge University Press.
- Whistle, J. (1999). Concordancing with students using an 'off-the-web' corpus. *ReCALL*, 11(2), 74-80.
- White, E.M. (1994). *Teaching and assessing writing* (2nd ed.). San Francisco: Jossey-Bass.
- Widdowson, H. G. (1978). *Teaching language as communication*. London: Oxford University Press.
- Widdowson, H. G. (1996). *Linguistics*. USA: Oxford University Press.
- Williams, G. (1982). *Learning the law* (11th ed.). London: Stevens and Sons.
- Williams, J. (2000). Testing ESL learners' knowledge of collocations. *ELT Journal*, 35, 115-122.
- Williams, C. (2004) Legal English and plain language: An introduction. *ESP Across Cultures*, 1, 111-124.
- Williams, J. (2005). Form-focused instruction. In E. Hinkel (Eds.), *Handbook of research in second language teaching and learning* (pp. 671-692). Mahwah: Lawrence Erlbaum Associates.

- Willis, D. (1990). *The lexical syllabus: A new approach to language learning*. London: Collins ELT.
- Wilson, E. (1997). The automatic generation of CALL exercises from general corpora. In A. Wichman, S. Fligelstone, T. McEnery, & G. Knowles (Eds.), *Teaching and language corpora* (pp. 116-130). London and New York: Longman.
- Wong, I. F. H., & Choo, L. S. (1983). Language transfer in the use of English in Malaysia. In F. Eppert (Eds.), *Transfer and translation in language learning and teaching* (pp. 119-143). Singapore: Singapore University Press.
- Woolard, G. (2000). *Collocation - encouraging learner independence*. In M. Lewis (Eds.), *Teaching collocation: Further developments in the lexical approach* (pp. 28-46). Hove: Language Teaching Publications.
- Woolever, K.R. (2006). Untangling the law: Verbal design in legal argument. *Journal of Advanced Composition*, 6(1), 151-165.
- Wray, A. 2000. Formulaic sequences in second language teaching: Principle and practice. *Applied Linguistics*, 21 (4), 463-489.
- Wray, A. (2002). *Formulaic language and the lexicon*. Cambridge: Cambridge University Press.
- Wu, L-H. (2005). *A study of English verb-noun collocational knowledge of technological university English majors in Taiwan*. Unpublished master's thesis, National Kaohsiung First University of Science and Technology, Taiwan.
- Yanhui, L. (2008). A study on DDL application in college English teaching. *CELEA Journal*, 31(2), 3-8.
- Yeh, Y., Liou, H-C., & Li, Y-H. (2007). Online synonym materials and concordancing for EFL college writing. *Computer Assisted Language Learning*, 20(2), 131-52.
- Yoon, H. (2005). An investigation of students' experiences with corpus technology in second language academic writing. Unpublished doctoral dissertation, Ohio State University, Ohio.
- Yoon, H. (2008). More than a linguistic reference: the influence of corpus technology on L2 academic writing. *Language Learning & Technology*, 12(2), 31-49.
- Yoon, H., & Hirvela, A. (2004). ESL student attitudes towards corpus use in L2 writing. *Journal of Second Journal of Second Language Writing*, 13(4), 257-283.
- Yoon, H., & Jo, J. W. (2014). Direct and indirect access to corpora: An exploratory case study comparing students' error correction and learning strategy use in l2 writing. *Language Learning & Technology*, 18 (1), 96-117.

- Zahar, R., Cobb, T., & Spada, N. (2001). Acquiring vocabulary through reading: Effects of frequency and contextual richness. *Canadian Modern Language Review*, 57 (3), 541-572.
- Zarei, A. (2002). Patterns of Iranian advanced learners' problems with English collocations. Unpublished doctoral dissertation, University of Isfahan, Iran.
- Zarifi, A., & Mukundan, J. (2012). Phrasal verbs in Malaysian ESL textbooks. *English Language Teaching*, 5(5), 9-18.
- Zhang, X. (1993). *English collocations and their effect on the writing of native and non-native college freshmen*. Unpublished doctoral dissertation, Indiana University of Pennsylvania, Pennsylvania, USA.