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Prepositional Clusters: Investigative-Oriented Learning and English Language Teaching

by Melinda Mui Leng Tan

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Abstract

This thesis attempts to do three things. Firstly, it attempts to bring a new contribution to knowledge about fixed idiomatic expressions in English, by demonstrating that the overall meaning of such expressions need not always be conveyed by the presence of lexical words. Linguistic observation of natural and authentic language use has shown the existence of fixed idiomatic expressions consisting solely of grammatical words and possessing a particular overall meaning. Some of these expressions commonly found in everyday informal communication (written and spoken) are “this and/or that”, “either or”, “round and round”, “ups and downs”, “on and off”, etc.

Secondly, the thesis will seek to illustrate through descriptive analysis that fixed expressions consisting solely of grammatical words can be called “units of meaning”, using Sinclair’s (1991a) position regarding form and meaning. Thus, a part of the thesis will be devoted to investigating the lexico-grammatical behaviour of such expressions. The analysis focuses solely on prepositional clusters, whose frequent usage in informal spoken and written communication makes them suitable for investigation. These prepositional clusters are composed of prepositions or words that can function as prepositions, and formed as a result of the common syntactic patterns in which they occur. Besides analysing cluster patterns that are composed solely of prepositions or words that can function as prepositions, other clusters which are composed of prepositions with adjectives/adverbs and nouns are included in the investigation, for purposes of comparison. Hence, the prepositional cluster patterns analysed in this study are:

a) Prep+and+Prep (egs. ins and outs, up and down),
b) Prep+Prep (egs. round about, upside down, inside out),
c) Prep+Adv/Adj (egs. at most, at least),
d) Adj/Adv+Prep (egs. excited about, worried about, angry about),
e) Noun+ Prep (egs. reason for, request for, excuse for) and
f) Prep+Noun (egs. by mistake, by chance, by coincidence).

In examining the lexico-grammatical behaviour of prepositional cluster patterns, I have applied linguistic principles from both Corpus Analysis and Cognitive Semantics. This approach, which combines two fields of linguistics, lends more depth to the analysis. While principles of Corpus Analysis are useful in determining common meaning usages and grammatical functions of prepositional clusters, principles of Cognitive Semantics are able to extend the interpretation of the meaning usages, with regard to metaphoricity. Consequently, I will utilise the principles in both fields to suggest a semantic representation of all the prepositional clusters analysed in the study, based on a superordinate classification rather than on a network one.

The third and final part of the thesis seeks to apply the lexicogrammatical findings and the linguistic principles used in the study to pedagogy. More specifically, these findings, together with the linguistic principles of Corpus Analysis and Cognitive Semantics, have been utilised to construct activities which demonstrate a particular ELT methodology, which I have termed Investigative-Oriented Learning (IOL). IOL is meant to address the limitation of Communicative Teaching in developing investigative questioning in language learners. The aim of IOL thus is to empower learners with skills of Conscious Investigation which may enable them to be sensitive to patterns of language, and to their idiomatic and metaphorical meanings and grammatical functions. Prepositional clusters, which illustrate idiomaticity and metaphoricity in authentic language use, have been used as an example of language patterns to illustrate the methodology behind IOL.
Chapter 0: General fields of study, points of focus and definitions

0.1 Introducing the fields of study

This research will investigate the phenomenon of prepositional clusters from three perspectives. It will focus on:

- the lexicogrammatical aspects of prepositional clusters using linguistic principles from corpus analysis,
- the syntactic and metaphorical relationship between the prepositional constituents of the clusters using principles from cognitive semantics
- the need for a suitable classification of prepositional clusters due to the limitations of traditional network models of lexical categorisation
- the effectiveness of using linguistic principles of corpus analysis and cognitive semantics as an approach to activating language awareness about language patterns

The investigation of the four aspects given above will cover the fields of corpus linguistics, cognitive semantics and language awareness. A discussion of the main principles used and reviews of work conducted for each field can be found in Chapters 1, 3, 4 and 5 respectively. There is also a discussion of the tension that exists in using both collocationist and cognitive approaches in the analysis of prepositional clusters. This tension derives from the opposing views of both regarding what a unit of meaning is. The collocationists view meaning as being a phrasal unit based on investigation of the lexical environment surrounding a node. Cognitivists on the other hand, regard meaning as deriving from the prototype meaning of single words. References to this
tension between the collocationist and cognitive perspective about the unit of meaning as well as the validity of both approaches in the analysis of prepositions can be found in Sections 1.3, 1.6.1-1.6.2, 3.1 and 3.2.1. It is appropriate at this point to devote the rest of this chapter to a discussion and definition of the terms that will be used in the thesis. The terms that will be defined are lexical word, grammatical word, preposition, prepositional cluster, idiom, grammaticalisation, lexicalisation, fixedness/fixed expressions and network model of lexis.

0.2 The status of prepositions as lexical or grammatical words

One of the ways in which this thesis attempts to set itself apart from others in the investigation of idiomatic expressions is in its endeavour to give a better descriptive account of prepositional usage by integrating collocationist and cognitive approaches rather than claim that one approach is more valid than the other. The validity of using both approaches in this thesis can be justified by the fact that the subjects of investigation are not idiomatic expressions composed of constituents where their status as lexical words is not questioned. In the case of idiomatic expressions composed of prepositions, the status of prepositions as lexical or grammatical words is at doubt. This issue of the validity of applying both approaches to the study of prepositional clusters will be discussed in Sections 1.3.1 and 1.6.2-1.6.3.

According to Carter (1998b:8), grammatical words are known as “functional words”, “empty words”, or “functors” which come from a small and finite class of words – pronouns, articles, auxiliaries, prepositions and conjunctions. Lexical words on the other hand, are also known as “full words” or “content words” and include nouns, adjectives, verbs and adverbs: “They carry a higher informational content
...and are syntactically structured by the grammatical words” (Carter 1998b:8). This difference between grammatical and lexical words is also supported by Finnochiaro and Brumfit (1983: 127) and Stubbs (1986a):

“Lexical words are nouns, main verbs, adjectives and adverbs. Grammatical words are anything else: pronouns, conjunctions, articles, prepositions, auxiliary and modal verbs. There are many tests to distinguish these two classes, but very briefly it can be stated that lexical words comprise large open sets with hundreds and thousands of members in common use, whereas grammatical words comprise small closed classes with only a few (less than around 20) items in common use” (Stubbs, 1986a: 115)

Biber et al (1999: 55) give a more detailed distinction between grammatical and lexical words. To them, lexical words are “words that remain in the information-dense language of telegrams, lecture notes, headlines, etc....They often have a complex internal structure and they can be the heads of phrases.” Function words on the other hand serve two main roles which are “indicating relationships between lexical words or larger units or indicating ways in which a lexical word or larger unit is to be interpreted”.

While the above definitions seem quite unambiguous in distinguishing between lexical and grammatical words, the distinction is not as clear cut as it seems in the case of prepositions. There seems to be no agreed definition of a preposition of whether a preposition is a lexical or grammatical word. Quirk and Greenbaum (1987: 143) do not refer to their status at all as a lexical or grammatical word, simply giving a general definition of a preposition as “expressing a relationship between two entities, one being that represented by the prepositional complement...And of the
various relational meaning, those of place and time are the most prominent and easy to identify”. Biber et al (1999: 74) also seem to have no clear definition of prepositions, simply referring to them as “links which introduce prepositional phrases”. They however illustrate their findings through corpus evidence that prepositions are borderline cases of lexical word class membership. On the one hand, there are prepositions which have an independent referential meaning such as up, down, in, with, etc, as in the examples: *Up the ladder, in September, down the stairs, with one hand.* Biber et al call these kind of prepositions free prepositions. On the other hand, free prepositions can also function as bound prepositions where the choice of preposition depends on the some other word preceding it, for example, a verb to form a prepositional phrase or multi-word unit. Thus we have: *start up a business, fall in love, cut down a tree, part with your money.* Also, there are many other multi-word unit sequences which according to Biber et al are complex prepositions which “function semantically and syntactically as single prepositions” (Biber et al 1999: 75). Some examples of multi-word sequences are two-word sequences like *such as, apart from, ahead of, depending on, according to, along with,* etc, and three-word sequences like *as far as, in exchange for, as distinct from, by means of, as opposed to, in accordance with.*

The phenomenon described above about prepositions being free or bound to other words brings us back to the problem of whether to analyse prepositional meaning from a cognitive or collocationist perspective, and the related problem of whether they are lexical or grammatical words. This ambiguity of prepositions as having lexical or grammatical status has led to them being termed and classified in many studies according to which status adequately fits the conceptual framework.

---

1 Examples taken from Biber et al (1999: 75)
chosen for their investigations. In many studies, prepositions have been classified as Prepositional forms (P-forms), prepositions, particles, adverb, locative auxiliary, stative predicate, predicator, modifier, preverb, adprep, verbal adjunct, aspect marker, satellite, intransitive preposition, transitive adverb.

The present study however, is not overly concerned with choosing a particular status for prepositions in order to fit a specific conceptual framework. Since it has been highlighted quite convincingly from corpus evidence by Biber et al (1999:74) that prepositions have the ambiguous status of having borderline lexical membership while at the same time qualifying as functional words, it is justifiable that the analysis of prepositional usage should focus on the types of linguistic approaches that can give an adequate description of their usage. For purposes of this thesis, I feel that both collocationist and cognitive perspectives are valid in investigating this usage based on the finding that prepositions can have both free and bound meaning. However, since this thesis will also consider the application of collocationist and cognitive principles of analysis to language teaching, I will classify prepositions as non-lexical words (using Stubbs 1986a: 115 definition of functional words) for the sake of not disrupting traditional pedagogical references to prepositions as grammatical words.

0.3 Prepositional clusters as idioms: Institutionalisation, non-compositionality and interpretation

Since it has been illustrated by Biber et al (1999) through corpus evidence and from observation of our own language use that prepositions in English form many multi-word sequences, this section will deal with the issue of prepositions and fixed expressions.
Psycholinguistic studies, especially those conducted by Pawley and Syder (1983) and Nattinger and DeCarrico (1992) have shown that language consists of prefabricated chunks and is patterned (see Section 1.3-1.3.1 for a more detailed discussion on the relationship between psycholinguistic and collocationist approaches). Using this observation, it can also be illustrated that much of the prepositional usage found in everyday written and spoken English also occurs in prefabricated chunks (see Section 2.0 for corpus evidence), in the formation of phrasal units or fixed expressions. Some common examples of fixed expressions that prepositions form are up and down, in and out, ins and outs, round about, inside out, down under, etc. The term fixed expressions has been referred to by other names – "phraseological unit" (Gläser 1988), “word combinations” (Alexander 1978, 1987) and “phrasal lexemes” (Lyons 1977) - all with slightly different distinctions. For purposes of this thesis, I will use the term fixed expressions as an umbrella term used to classify terms such as idioms (kick the bucket, spill the beans), compounds (wastebasket, civil-servant, self-praise, round-about), binomials (make or break, more or less, here and there, come and go, ups and downs), phrasal verbs (make up, turn up) and strong collocations (rancid milk, rice bowl, green fingers, by chance, reason for, happy with). The central concern of this thesis will be to investigate prepositional meaning and structure in these categories of fixed expressions, namely, binomials (e.g.s. ins and outs, ups and downs, round and round, out and out, through and through, etc) compounds (e.g.s. inside out, round about, down under, etc) and strong collocations (e.g.s. by chance, reason for, angry with/at, etc). I have not included phrasal verbs in my investigations since a comprehensive study on them has already been conducted by Hunston, Francis and Manning (1996) in their book Collins
Cobuild Grammar Patterns 1: Verbs. Thus, I will term all binomials, compounds and strong collocations which comprise prepositional constituents as prepositional clusters.

My claim regarding prepositional clusters is that this particular type of fixed expressions has been under-studied with regard to its overall meaning usage (most of which are idiomatic) and its syntactic structure (see Section 1.2 for further details about previous studies conducted on fixed expressions)\(^2\). It is my conviction that principles in corpus analysis and cognitive semantics are accurate in being able to describe these aspects adequately. Furthermore, since psycholinguistic observations and corpus evidence (see Section 2.0) have demonstrated that most prepositional usage is bound to other words rather than being free, my aim is also to highlight this erroneous treatment of prepositions in many English coursebooks for foreign learners.

However, before embarking on the above investigations, it is necessary to discuss to what extent prepositional clusters exhibited idiomaticity and to define what an idiom is. According to Moon (1998: 5), there are two definitions of an idiom. An idiom can be “a particular manner of expressing something in language, music, art, so on, which characterise a person or group”. On the other hand, an idiom can also be “a particular lexical collocation or phrasal lexeme, peculiar to a language” in which Sinclair’s (1987) idiom principle is observed to operate (see Section 1.3 for a further discussion of Sinclair’s open and idiom principles). Fernando and Flavell (1981), Fernando (1996), Cowie (1988) and Gläser (1998) however have a narrower definition of an idiom. Gläser (1998:125) defines an idiom as “a particular kind of

\(^2\) Except for some studies conducted by Vestergaard, 1977; Lindner, 1981; Hawkins, 1984; Herskovits, 1986; Rastall, 1994; Boers, 1996; Boers and Demecheleer, 1998; O’Dowd, 1998 which have focused on single grammatical words, little research has been done on idiomatic expressions consisting solely of grammatical words such as prepositions.
unit which has syntactic and semantic stability, and may carry connotations, but whose meaning cannot be derived from the meaning of its constituents.” There is a general agreement amongst all three that idioms are indivisible units of meaning, whose components cannot be varied or varied within limits (see Fernando 1996). Cowie (1988) and Fernando (1996) give the examples of *kick the bucket, spill the beans*, etc, and call them pure idioms where the overall meanings of the expressions are not transparent. Fillmore *et al* (1988) uses the term formal idioms to refer to semi-grammatical structures such as *Noun 1 to Noun 2*. These structures form the basis of lexico-grammatical frameworks for corpus analysis.

According to Fernando (1998), phrases which exhibit idiomaticity have habitual and predictable co-occurrence of specific words like idioms but unlike idioms have a “narrower range of word combinations” (Fernando 1996: 4). However, the distinction between idioms and idiomaticity is not clear cut as there seems to be a continuum from non-compositionality to compositional groups of words. According to Bolinger (1977: 168):

> "There is no clear boundary between an idiom and a collocation or between a collocation and a freely generated phrase – only a continuum with greater density at one end and greater diffusion at the other...” (Bolinger 1977: 168)

Fernando and Flavell (1981: 19) support this position and say that:

> "Idiomaticity is a phenomenon too complex to be defined in terms of a single property. Idiomaticity is best defined by multiple criteria, each criteria representing a single property” (Fernando and Flavell 1981: 19)
While Fernando highlights later in 1996 her position that in the end, all idioms show idiomaticity the difficulty of differentiating between idioms and idiomaticity is still very apparent. There have been other studies conducted on fixed expressions and idioms based on early phraseological models developed from the perspectives of semantics, where the concept of word is explored (see Hockett 1958; Makkai 1972, 1978), lexis, where concepts such as collocation are colligation explored (see Firth 1957; Mitchell 1971; Sinclair 1987, 1991a, 1996), syntax, where transformational grammar is used to explain the underlying syntactic structure of an idiom (see Katz and Postal 1963; Weinrich 1969, Fraser 1970; Katz 1973). Later phraseological models have attempted to integrate some of these earlier perspectives by analysing fixed expression and idioms from functional, psycholinguistic and collocationists perspectives (see Pawley and Syder, 1983; Fillmore, Kay and O'Connor, 1988; Willis, 1990; Kennedy, 1991; Cowie, 1992; Nattinger and DeCarrico, 1992; Dirven, 1993; Lewis, 1993, 1997; Moon, 1994, 1998; Gibbs, 1995; Nicholas, 1995; Fernando, 1996; Foley (ed), 1996; Lazar, 1996; Goatley, 1997; Hudson, 1998; Stubbs, 1995, 1998; Radman, 1997). There is a more detailed discussion on the more current approaches in Section 1.3 and 3.2. However, for purposes of this thesis, I will take the position that most prepositional clusters exhibit idiomaticity based on three criteria: institutionalisation, lexicogrammatical fixedness and interpretation.

According to Bauer (1983: 48), when a fixed expression such as a string or formulation becomes institutionalised and develops its own specialist meaning, it is accepted as a lexical item in the language. Pawley (1986: 103) expands on this
According to him, lexemes are:

"common usages, holding some degree of status in the language community as
official expressions for particular purposes – as standard labels for standard ideas,
as recognised speech formulas for carrying out certain social acts, and so on..."
(Pawley 1986: 103)

I would like to suggest that the institutionalised and specialist meaning that a lexeme
has, when applied to strings or units implies idiomatic usage.

In the case of prepositional clusters, it is possible to consider them as
idiomatic lexemes or lexical units which have “common usages” based on Bauer
(1983) and Pawley’s (1986) criteria of institutionalisation. This is because it can be
attested from corpus evidence (see section 2.0) that binomials with antonymic
constituents such as up and down, in and out, ins and outs, binomials consisting of
repeated constituents, up and up, over and over, through and through, compounds
inside out, upside down, down under, and strong collocations by coincidence, happy
with, angry at/with are part and parcel of authentic spoken and written English with
their own idiomatic meanings. Note that in the previous section, I considered single
prepositions as being non-lexical words but in the case of prepositional clusters, the
status of the unit becomes that of a lexeme since the whole unit has an overall stable
and fixed meaning. All the expressions can be considered to have undergone the

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3 Sinclair (1996: 75) uses the term lexical unit rather than lexeme to refer to a string of words, i.e. “a single independent meaningful choice of words” usually phrasal, which conveys only one particular meaning sense.
process of **lexicalisation** by virtue of the fact that the individual cluster which consisted of non-lexical items (single prepositions) had now developed a fully referential and established meaning in English. I will deal with this issue of considering the prepositional cluster as a lexical unit of meaning in chapter 2 by illustrating that the overall unit has an established meaning compared to its single prepositional constituents.

Pawley (1986) also uses the lexicalisation criterion of a “single-word synonym” to consider if a word can be considered a lexeme. In the case of prepositional clusters with binomial constructions with antonymic constituents such as *ins and outs, ups and downs* or those with repeated constituents such as *over and over, by and by, through and through* and compounds such as *upside down, inside out, down under*, a single word or near synonym can be substituted for each idiomatic meaning of the cluster. For example, *ins and outs* can be substituted with the word “complexities” or “details” depending on the context, and similarly *upside down* can be substituted with the word “inverted” or “chaotic”, once again, depending on the context. Based on these two cases as well as all the examples given, prepositional clusters which are binomials and compounds once again exhibit lexicalisation and can be considered idiomatic lexemes according to Pawley’s “single word synonym” criterion. However, when dealing with examples of prepositional clusters formed from strong collocations such as *by chance, reason for, suspicious of*, etc, problems arise. These phrasal units, firstly, do not have an overall institutionalised and idiomatic meaning and secondly cannot be substituted with single-word synonyms. In such cases, these particular kinds of prepositional clusters formed from strong collocations should not be considered idiomatic lexemes according to the criterion laid out by
Bauer (1983) and Pawley (1986). What these counter examples do show instead is that prepositional clusters exhibit varying degrees of idiomaticity on a continuum with binomials and compounds showing the highest degree of idiomaticity and strong collocations showing the least.

While the criterion of institutionalisation might illustrate the presence of "frozen strings" (see Moon 1998: 7), it does not however indicate whether all frozen strings qualify as idiomatic as seen in the previous case of prepositional clusters with strong collocations. Moon (1998: 7) suggests that the criterion of lexicogrammatical fixedness be used as another means of determining idiomaticity. According to Moon (1998: 7), lexicogrammatical fixedness is the "formal rigidity of units" with regard to "preferred lexical realisations and often restrictions on aspect, mood or voice. With regard to prepositional clusters, corpus analysis (see Chapter 2 and Sections 3.6-3.6.3) will show that all the prepositional clusters analysed (binomials, compounds and strong collocations) exhibit syntactic restrictions (e.g. the cluster in and out had to be preceded by a dynamic verb or be-verb) and lexical preferences (e.g. the preposition at has a semantic preference for adjectives or adverbs which belong to the domain of ability or emotion – hopeless/good/useless + at, shocked/surprised/astonished + at). Thus by using Moon’s (1998: 3) criterion of an idiom as “a particular lexical collocation or phrasal lexeme, peculiar to a language” in which Sinclair’s (1987) idiom principle is observed to operate, prepositional clusters can be considered idiomatic in this light.

It should be noted that because prepositional clusters as units exhibit syntactic restrictions and lexical preferences, these units exhibit grammaticalisation, which according to Hopper and Traugott (1993: 4) is "the process by which a content word
assumes the grammatical characteristics of a function word”. In the case of prepositional clusters, I will interpret “content word” as referring to “lexeme” as it has been discussed in the previous paragraphs that prepositional clusters are idiomatic lexemes based on Pawley’s (1986) criterion of lexemes as having institutionalised meaning. Thus, in the cluster *ins and outs*, this lexical unit functions as a noun since it is also preceded by the determiner “the” and followed by the preposition “of” (e.g. the *ins and outs of the matter*). Similarly, the compound *inside out* as a lexical unit, functions commonly as an adverb since it is preceded by a dynamic verb or be-verb (e.g. was wearing his shirt *inside out*).

Hopper and Traugott (1993: 49) claim that the process of grammaticalisation (i.e. the shift from lexical to grammatical structure) is more common than the process of lexicalisation (i.e. the shift from grammatical to lexical structure). In the case of prepositional clusters it has been illustrated that these clusters are able to undergo lexicalisation by virtue of their non-lexical constituents (using Stubbs 1986a: 115 classification of prepositions as functional words) having an overall institutionalised idiomatic meaning (e.g. *ups and downs*). Once they are established as lexical units, the clusters are able to undergo grammaticalisation by virtue of the lexical unit assuming the grammatical characteristics of a function word (e.g. *ins and outs* functioning as a noun). (see Sections 2.1.1 and 2.2.1 for a more detailed analysis of the grammatical functions of some prepositional clusters). I would like to suggest that this bi-directionality is unique only to prepositional clusters due to their dual status of having strong referential meaning but at the same time being classified as functional words.
The last criterion I will consider for idiomaticity is that of interpretation. According to narrower definitions of idioms, non-compositionality i.e. when a string is considered in its entirety, is an important criterion for idiomaticity. As mentioned at the beginning of this section, linguists such as Fernando and Flavell (1981), Fernando (1978, 1996) and Cowie (1988) have stressed that idioms cannot undergo meaning interpretation derived word by word from the string. As Gläser (1998) emphasises, an idiom should be "a particular kind of unit which has syntactic and semantic stability, and may carry connotations, but whose meaning cannot be derived from the meaning of its constituents." Thus, according to Gläser, *kick the bucket* and *raining cats and dogs* are idioms by virtue of the fact that their meanings are opaque. If we were to apply the above criterion to the interpretation of prepositional clusters such as *over and over*, *ups and downs*, *through and through*, it is quite obvious that the overall meanings of these clusters are not opaque when considered non-compositionally. In fact, the overall meanings are quite clear if interpreted modularly from the meanings of the individual prepositional constituents. Using this criterion, prepositional clusters could not be considered as idiomatic. However, there are many counter-examples to this criterion to show that there are many idiomatic expressions in English which do not obey the criterion of non-compositionality. Some examples are *U-turn*, *explode a myth*, *drop names*, where meaning interpretation relies on the listener's ability to relate literal meaning with the metaphorical, based on his or her knowledge of the world. In fact, Moon (1998: 8) herself admits that "the concept of non-compositionality is problematic. It is essentially idiolectal and synchronic".

Since non-compositionality is too a rigid criterion to define idiomaticity, there needs to be another criterion which take into account cultural and cognitive aspects of
language, such as the phenomenon of metaphoricity. Idiomatic language contains many metaphorical allusions which are very commonly used in everyday communication, deriving from basic conceptual metaphors. Studies by Lakoff and Johnson (1980), Lakoff (1987), Reddy (1993) and others in the field of cognitive semantics have demonstrated that various aspects of metaphorical constructs such as “Anger is heat” are realised in idiomatic expressions such as hot under the collar, hot and bothered, make someone's blood boil, blow one's top. The application of conceptual knowledge about the nature of things to the interpretation of non-literal meanings such as metaphors, in which the target expression can be traced back to the source domain of knowledge about the world, gives rise to the metaphorical allusions, and hence idiomaticity in expressions.

In the case of prepositional clusters, especially binomial (ups and downs, ins and outs, etc) and compound constructions (upside down, inside out, etc), the connection between the metaphorical and conceptual meaning is quite obvious. Since prepositions have universally well known spatial and referential meaning, the association between these conceptual meanings and their metaphorical ones are quite clear. For example, as Lakoff and Johnson (1980) have demonstrated, the spatial meaning of the prepositions up and down have clear associations with “good” and “bad” respectively, as well as other meaning extensions related to “good” and “bad” like “high social status” and “low social status” resulting from cultural and social biases. Thus, with reference to the prepositional cluster ins and outs, meaning interpretation of this expression in the sentence “Our marriage has its up and downs” is aided by the strong link between the spatial concepts of the prepositional components and their real-world associations, giving the overall meaning “good times
and bad times". Other binomial and compound prepositional clusters follow this same process of metaphorisation, thus resulting in the expressions being termed as idiomatic. It must be noted however that not all prepositional clusters, especially those formed from strong collocations follow this target-to-source process of metaphorisation. In the cases of by coincidence, happy with, angry at, it has already been discussed at the beginning of this section that since they cannot undergo lexicalisation, nor can they be substituted with single word-synonyms, they should not be considered lexemes or lexical units. Furthermore, they cannot undergo the metaphorisation process since the target-to-source domain cannot be traced and for this reason should not be considered idiomatic expressions. A more detailed investigation of the metaphorisation process in meaning interpretation is given in Chapter 3, especially Section 3.10 and 3.11.

In short, prepositional clusters which are binomials with antonymic or repeated prepositional constituents and compounds are idiomatic expressions with regard to the criteria of institutionalisation, lexicogrammatical fixedness and meaning interpretation. Those which are strong collocations are simply "frozen strings" (see Renouf and Sinclair, 1991) and cannot be considered as holistic units because they do not fulfil all three criteria. Although, it has been shown that they do exhibit lexicogrammatical fixedness, they do not possess an overall institutionalised meaning and cannot undergo the metaphorisation process of target-to-source domain.

0.4 Prepositional clusters and network models of lexis

Since principles in cognitive semantics have illustrated that there is a strong link between the referential meanings in prepositions with their real-world
associations (see Herskovits 1986; Lakoff 1987; Rauh 1991) much work in lexicography has been devoted to classifying the wide array of prepositional usages (see Brugman 1981; Lindner 1981; Rudzka 1986; Cuyckens 1991; Schultze 1991; Rice 1992, 1993; Sandra and Rice 1995). Most of these works were based on what was called lexical networks which according to Sandra and Rice (1995: 89) were “structures which graphically represented the relations among usages as a function of distance and interconnectedness”. Put simply, a lexical network was interpreted as a structure with a centre and a periphery. This structure was “congruent with the cognitive linguistic assumption that categories are organised with respect to a prototype” (Sandra and Rice 1995: 90). The properties of lexical networks are described in further detail by Rice (1993):

"Most such networks have the following properties: related senses radiate from a core or prototypic meaning: the nodes in such a network represent different senses which vary according to the particular syntax or semantics of the lexeme in a given application: the nodes are interrelated and the strength of the relation between different sense is understood in terms of the distance between nodes and the directionality of links..." (Rice 1993: 207)

Some network models on prepositions which follow Rice’s (1993) description are given below:

a) Fig. 1: A hierarchical network (based after a typical dictionary entry),

b) Fig 2: Idealised radial category (after Lakoff 1987),

c) Fig 3: Actual network proposed for over (Lakoff 1987: 436)

d) Fig 4: Growth of a network (Langacker 1987)
e) Fig 5: Network model for prepositions (Rice 1993)
In Fig 1, the nodes represent distinct subentries, each of which has its own subentries. The problem here is that each of the various major senses of the preposition are taken to be unrelated and homonymous but this is not really true since there are prepositions such as over and beyond which both fall under the “above and across”. In English, we have sentences like *The helicopter flew over the river* and *The helicopter flew beyond the river* where the prepositions over and beyond can be interchangeable and are in a sense related since they both relate to a position that is “above and across”. In the hierarchical model in Fig. 1 however, over and beyond would be classified as unrelated prepositions.

In Fig. 2, Lakoff’s (1987) idealised network centres on “a radial structure anchored in the centre by a single prototypical sense”. He applies this radial structure to the preposition over in Fig. 3, where its multiple spatial meanings are represented. While the hierarchical model in Fig. 1 analyses a vertical or top-down interrelation between nodes, Lakoff’s model analyses a horizontal interrelation between the nodes. According to Lakoff, “each node represents an image-schema and adjacent nodes are related through image-schematic transformations”. While this model seems to be beneficial in trying to relate extended meanings of a preposition with its central meaning, it is however unclear how what criterion is used to determine the core senses of a preposition like *by* which has a few meanings (e.g. ‘to show the person or thing that performs an action’ —“attacked by a dog”, ‘not later than —“be here by four o’ clock”). Furthermore, the model is unable to illustrate how abstract uses of the preposition (e.g. the association between the referential meaning of *by* as “near” and *by* in the idiomatic expression *by the way*) are related. The inability of the model to show the criterion for relation between core senses as well as core and related senses
are what Sandra and Rice (1995) criticise as vague representational conventions. They add further that "like the hierarchical dictionary-type network, radial networks are overly specific about the top or centre of the network but overly vague about the periphery or how the network has come to assume its current static shape." (Sandra and Rice 1995: 95).

Langacker (1987) tried to remedy this weakness by constructing a network (see Fig. 4) which allowed the possibility of "network growth" where there was a "small taxonomy of node types which allow(ed) for multiple prototype nodes, extensions and schemas". This model attempts to reconcile the hierarchical model in Fig. 1 with Lakoff's (1987) idealised model by allowing for network growth in the vertical and horizontal dimensions. The advantage of this kind of construction is that it tries to integrate and classify the core and extended usages of a given preposition (taken from the perspective of the hierarchical model) as well as tries to interrelate the wide range of usages with one another (taken from the perspective of the radial network model). In Fig. 5, Rice (1993) applies Langacker's (1987) model to construct her own representation of prepositions where she assumes that "each prepositional form is a complex category with internal structure representing a consortium of individual cases". Thus, in her model, "schema nodes, labelled (S), represent abstractions over individual cases with prototype (P) or extension (E) nodes representing separate sub-cases or actual usage tokens" (Rice 1993: 209).

The network model proposed by Rice (1993) seems the most detailed in its construction out of all the four described. It has the advantage over the rest in its attempt to accommodate a) various core senses, b) core and related senses, and c) multiple related senses, using a Schema—Prototype—Extension structure.
While the discussion above has focused on network models of representation for single prepositions, one limitation of these is that it does not take into account psycholinguistic observations that language exists and is processed by language users as prefabricated chunks and not as single words (see Pawley and Syder, 1983, Nattinger and DeCarrico, 1992). Although the network models given above are applied to lexemes and prepositions, there seems to be a view however that these lexemes have to exist as single words. The view that a lexeme can be a phrasal unit of meaning (see Sinclair 1987, 1991a, 1996) has been disregarded. With regard to prepositional clusters which exists as phrasal lexemes which convey idiomatic meaning, the network models suggested above might not be able to accommodate expressions such as up and down, ins and outs, inside out, down under, through and through where the metaphorical relationship between the prepositional constituents have to be accounted for.

In Chapter 4, especially in Section 4.4, I will discuss in greater detail the limitations of previous network models in disregarding the issue of phrasal lexemes such as prepositional clusters as well as the neglect of clear criteria in deciding the relationship between core senses and, core and extended senses. The limitations can be summarised into four main ones: a) a lack of clear methodological principles for the identification of core meanings, b) an ambiguity about how the core or referential meanings relate to the extended ones due to a lack of criteria, c) the disregard for the existence of phrasal lexemes, d) with regard to prepositional clusters, the absence of a model to classify the syntactic and semantic relationship between prepositional constituents in the clusters. These limitations will be discussed at greater length as well as a proposal for a superordinate categorisation of prepositional clusters based on
Rosch’s (1978) prototype categorisation. The proposed categorisation will focus on syntactic and metaphorical criteria used to restrict membership and prevent ill-formed clusters.

0.5 Conclusion

I am aware of the existence of many innovative and influential lexicogrammatical and cognitive studies in the past ten years which have discussed in greater detail than I have, the concepts of lexical and grammatical words, fixed expressions, idiomaticity and metaphoricity. Most of the studies were contributed by Sinclair (1991a, 1996), Renouf and Sinclair (1991), Moon (1994, 1998), Hunston, Francis and Manning (1997), Stubbs, (1995, 1996, 1998), Hudson (1998), Rauh (1991), Dirven (1985, 1993), Sandra and Rice (1995), Boers (1996) and Lindstromberg (1996, 1998). These studies have applied principles of meaning analysis founded in corpus linguistics or from other fields of linguistics such as cognitive semantics. While the above studies have contributed immensely to our present knowledge about language use and usage, the focus of each has been on single lexical words, phrasal units consisting of lexical words or single grammatical words (e.g. single prepositions) and delexicalised words.

The present study, while contributing also in its general aim to the area of knowledge about language use, usage and idiomaticity, and also applying similar principles used in corpus linguistics and cognitive semantics as the above studies, is however, different from them in a number of ways:

a) it focuses on phrasal units of fixed expressions used in English, composed solely of grammatical words such as prepositions (which I have termed
prepositional clusters) **rather than single words.** These phrasal units have been selected according to common syntactic patterns that they are usually found in. The rationale for selection will be highlighted in the background reviews and preliminary setting in Chapter 1.

b) it does not restrict meaning analysis of idiomatic usage solely to one area of linguistics but **combines principles of both corpus linguistics and cognitive semantics** for a more detailed exploration of structure and patterning in fixed expressions. This detailed exploration using principles in corpus linguistics and cognitive semantics an be found in Chapters 2 and 3 respectively.

c) it seeks to illustrate a semantic representation and **categorisation of phrasal units of fixed expressions composed solely of grammatical words,** like prepositional clusters, which is different from traditional network representations used in many lexico-grammatical studies. The categorisation I am proposing will show how the surface level (referential spatial distinctions) and deep level semantic distinctions (abstract conceptual relationships) between various prepositions are responsible for their formation as a phrasal unit or cluster. A full discussion and illustration of this categorisation as well as its advantages over traditional network representations will be discussed in Chapter 4.


d) it will **propose a new language awareness component called Conscious Investigation that is not developed in Communicative Teaching as well as the teaching approach required to activate it.** Classroom tasks designed using the approach focus on observations about the lexico-grammatical behaviour of prepositional clusters together with the application of linguistic principles from corpus analysis and cognitive semantics. The justification for the proposal and the
investigation of its efficacy in activating skills of descriptive awareness about language usage are detailed in Chapters 5 and 6 respectively.

Based on the above features of my study, I have constructed a general hypothesis which summarises the aspects of language and areas of investigation that I am interested in and will be exploring. This general hypothesis is given below:

**General Hypothesis:**

Research on "conventionalised form/function composites" which are found in natural language communication has focused almost entirely on those consisting of lexical words. However, there exist prefabricated chunks of language or fixed expressions, composed solely of grammatical words, which have not been investigated. One example of this kind of fixed expressions are prepositional clusters which could have a linguistic identity different from their components in terms of grammatical distribution and idiomatic meaning usages (some of which are metaphorical). Such features which have been derived from linguistic observation of language use could be taught in the language classroom as part of a process of Investigative-Oriented Learning.

Since the general hypothesis covers quite a few aspects of language, it will be directed and hence verified by a series of sub-hypotheses, investigated at various stages of the research. This method of approach was undertaken to give my study structure and guidance. A full outline of this study, is now given in the next few pages, summarising the stages of research and various sub-hypotheses that have steered this work.
Stage 1: Observed linguistic phenomenon
Prefabricated chunks of language or fixed expressions that exist in natural language communication need not necessarily be composed of lexical words. They can also be composed solely of grammatical words. This observation will be discussed in Chapter 1.

Stage 2: Justification that fixed expressions composed of grammatical words are units of meaning
Sub-hypothesis 1: Prefabricated chunks of language or fixed expressions composed of grammatical words like prepositions can be considered units of meaning because they have a linguistic identity which is distinct from their components in terms of grammatical function and idiomatic meaning usage. Some of these idiomatic meanings can be metaphorical. Investigation of this sub-hypothesis will be shown in Chapter 2, with reference to fixed expressions composed solely of prepositions and words which also function as prepositions. These kinds of fixed expressions will henceforth be called prepositional clusters.

Stage 3: Further investigation into the properties of prepositional clusters with reference to syntactic patterning and semantic relationships between components
Sub-hypothesis 2a: There exist focusing constituent(s) in the syntactic patterning responsible for signalling the formation of a cluster in prepositional patterns composed of one and two prepositional constituents. Thus, there exists a constituent element(s) which form(s) strong collocates with other words so as to be instrumental in creating a cluster.

Sub-hypothesis 2b: There exists a criterion for selection of prospective constituent choices in the formation of a prepositional cluster. This criterion is based on two conditions - a conceptual metaphorical relationship and a common abstract lexical domain.

Sub-hypothesis 2c: The degree of metaphoricity of prepositional clusters depends on two criteria - substitutability and transformation. Thus, metaphoricity relies on the degree to which a word or phrase of equivalent meaning is substitutable. Also, it depends on the extent to which the basic spatial meaning of the prepositional cluster can be transformed into an extended meaning which is considered metaphorical, by virtue of common semantic markers between the extended meaning and the basic one. The findings of the three sub-hypotheses are investigated in Chapter 3.
Stage 4: Categorising prepositional clusters
A semantic representation of prepositional clusters using a superordinate categorising will be proposed, based on findings about their lexico-grammatical behaviour from Stages 2 and 3. Also, a discussion of the weaknesses of present network representations of single prepositions will be given in Chapter 4.

Stage 5: Formulating a relationship between linguistic principles of corpus analysis, cognitive semantics and language awareness with special reference to prepositional clusters
The above relationship will be discussed in Chapter 5 with reference to some limitations of Communicative Language Teaching (CLT) in addressing the issue of language empowerment, in particular, its inability to equip language learners with the skills of investigative thinking. The discussion will then lead to the eventual proposal of Investigative Oriented Learning (IOL), a language teaching and learning approach, which develops a further awareness about language use. It will be suggested in the chapter that this approach can activate the skills of investigative questioning in the development of Conscious Investigation: a process of developing a descriptive awareness about common structures and patterns of language use, based on their idiomatic usages, functions and degree of metaphoricity, as used in natural communication.

Stage 6: Testing the proposal: Applying IOL in the EFL Classroom - A classroom report
Sub-hypothesis 3: Investigative Oriented Learning (IOL) is more suitable an approach than Communicative Language Teaching (CLT) for developing skills of investigative thinking required in Conscious Investigation, such as Noticing, Hypothesising and Experimenting. These skills can be acquired through the teaching and learning of the metaphorical usages and syntactic construction of common idiomatic expressions such as prepositional clusters. A report of the procedures involved in the verification of the above hypothesis and the findings based on a classroom study is given in Chapter 6.

Stage 7: Overview and Conclusion
This stage will conclude the research by presenting some future applications that could arise from the present study. The applications are found in Chapter 7.
Chapter 1: Preliminary Setting and Reviews

1.0 Perceptions about language

Recent studies in corpus linguistics have shown that intuitions about language use are not always the best way in understanding the nature and structure of the language itself. For many years, traditionalists have sought to describe language based on intuitive perspectives and not from facts. This has lead to many misleading notions about language, the main one being that language is divided into two aspects - form and meaning - thus leading to grammar and vocabulary being taught independently from one another in the language classroom. The assumed division between form and lexis has been shown to be erroneous from work done by linguists such as Sinclair (1991a, 1996), Halliday (1991), Leech (1991), Stubbs (1995, 1996, 1998), Moon (1994, 1998), etc, who have all shown that they are inextricably linked, contrary to previous intuitions. Sinclair especially has established his own position regarding meaning and form, asserting that:

"each meaning can be associated with a distinct formal patterning...There is no distinction between form and meaning...[The] meaning affects the structure and this is...the principle observation of corpus linguistics in the last decade..." (Sinclair, 1991a: 6-7)

From the above quote, it is clear that any change in grammatical choice causes a change in the lexical choice, and vice versa, consequently affecting the unit of meaning. This assertion about meaning is provocative because it claims that:
"every sense or meaning of a word has its own grammar...each meaning can be associated with a distinct formal patterning..." (Sinclair, 1991a: 10)

thus, attempting to show the existence and inter-relation between the syntagmatic and the paradigmatic axes, which according to traditional perspectives, did not exist before. Thus, this inter-relation between the syntagmatic and paradigmatic axes is shown when the syntagmatic axis, which shows the combination of words - grammatically and simultaneously - prospects certain other words on the paradigmatic axis, whilst grammatically opening up certain classes of words on the paradigmatic axis (see Bonelli, 1996).

1.1 Facts about language: the emergence of fixed expressions

The evidence presented by Sinclair (1991a, 1996) and other corpus linguists in recent years with regard to grammar and lexis, and the bound relationship between the syntagmatic and paradigmatic axes in meaning analysis, has formed the basis of a more accurate description about the nature of language. More importantly however, it has contributed to useful insights about genuine language use. One of these useful insights which has resulted from the observation of genuine language interaction is the use of prefabricated chunks of language, employed by native speakers in communication. Over the years, prefabricated chunks of language have also been given many labels; ritualised language, lexicalised sentence stems, fixed expressions, idiomatic phrases, etc and have been classified into various groups (see Nattinger and DeCarrico, 1992; Fernando, 1996; Moon, 1994, 1998). Becker (1975), Bolinger
(1976) and Pawley and Syder (1983) however, were the first to suggest that these prefabricated chunks of language are responsible for the native speaker's ability to convey his meaning through expressions that are grammatical and also nativelike, as well as his ability to produce fluent stretches of connected discourse. The mastery of these prefabricated chunks of language is the foundation of fluency, naturalness, idiomaticity and appropriateness and has been a puzzle to many researchers of language acquisition over the years. However, recent corpus studies investigating the use of prefabricated chunks in communication, using Sinclair's positions about form and lexis, units of meaning and flexible multi-word units, have come close to solving this puzzle about nativelike selection and nativelike fluency.

1.2 A comment about studies on fixed expressions, idiomaticity and metaphoricity

Whilst corpus studies and other works related to fixed expressions, idiomaticity and metaphoricity have attempted quite successfully to isolate, describe and classify huge numbers of prefabricated chunks of language or conventionalised utterances formally, semantically and pragmatically, there are three limitations about these studies that should be noted:

- **Firstly**, the vast majority of these studies have focused on fixed expressions composed of lexical words, thus endorsing the widely held view that conceptual, idiomatic or metaphorical meaning can only be conveyed through lexical words. However, everyday observation about natural language use shows this notion to be only partially true. Idiomatic and metaphorical meaning can also be expressed by fixed expressions consisting solely of grammatical words. This observation forms the basis of the first stage of my study:
Stage 1: Observed linguistic phenomenon

Prefabricated chunks of language or fixed expressions that exist in natural language communication need not necessarily be composed of lexical words. They can also be composed solely of grammatical words.

For purposes of this thesis, I will make use of Stubbs' (1986a) definition of the difference between grammatical and lexical words. Thus:

"Lexical words are nouns, main verbs, adjectives and adverbs. Grammatical words are anything else: pronouns, conjunctions, articles, prepositions, auxiliary and modal verbs. There are many tests to distinguish these two classes, but very briefly it can be stated that lexical words comprise large open sets with hundreds and thousands of members in common use, whereas grammatical words comprise small closed classes with only a few (less than around 20) items in common use" (Stubbs, 1986a: 115)

Using the above definition, I have thus managed to find some fixed expressions composed solely of grammatical words from the following categories:

a) prepositions or phrases derived from words which function also as prepositions e.g. in and out, ins and outs, up and down, ups and downs, over and beyond, round and round, inside out, in for, out to, etc

b) demonstrative pronouns e.g. this and/or that

c) adverbs or phrases composed of words which function also as adverbs e.g. here and/or there, now and then, now and again, above and below, etc

d) conjunctions e.g. either...or, neither...nor

It is also possible to have fixed expressions composed from combinations of grammatical categories such as:
a) adverb or adjective + preposition e.g. all for, much of, except for, etc
b) adverb + adverb e.g. very much, very little, much more, etc
c) adverb + conjunction e.g. all but, in that, etc
d) preposition + adjective e.g. in all, etc

(Note that all the words listed in the examples above are considered grammatical according to Stubbs’ (1986b: 33) Function Word List).

The fixed expressions above are commonly found in both written and spoken English. Their formation as a result of combination with other grammatical words create a fixedness in structure and even an idiomatic or metaphorical meaning. However, there are many other examples of fixed expressions found in authentic language combination. Below are examples taken from a concordance search which reveals the innumerable fixed expressions which are found in English, composed of prepositions, which are grammatical words according to Quirk et al’s (1985), Stubbs’ (1986a, 1986b), Finocchiaro and Brumfit’s (1983) as well as Carter’s (1998b) classification of grammatical categories. The examples below are taken from the tagged CANCODE\(^1\) corpus.


\(^1\) CANCODE is an acronym which stands for Cambridge University Press and Nottingham University Corpus of Discourse in English. Refer to Chapter 2 for further details about CANCODE
the second failing is that, although innovative works on language teaching have shown quite convincingly that language items in English can show a particular usage and meaning according to the words around them (see Willis, 1990; Lewis, 1993, 1997 for details on the Lexical Approach), unfortunately, they have focused on the frequent and idiomatic usage of single words and not phrasal units of language. It is my view that the focus on single words does not reflect the true nature of language communication, which employs the use of chunks of language, and not single words to fulfil the everyday communicative functions of life (e.g. to express one’s feelings, intentions, apologies, requests for information, etc).

the third failing is that, although there already exist research studies that have isolated a vast number of conventionalised utterances and classified them according to the discoursal functions in language use (see Pawley and Syder: 1983, Nattinger and DeCarrico: 1992, Moon: 1994, 1998, Fernando: 1996) by listing all
utterances (answers and replies) relevant to a particular discoursal function (greetings, farewells, inquiries, etc), I fear the implication of such works would be misleading for language learners if applied in the classroom. Firstly, the notion would be encouraged that all language situations which exist in language communication are structured and problem free. Secondly, a behaviouristic ideal would inadvertently be endorsed by teaching formulaic and ritualised communication. By giving a non-native speaker a list of formulaic utterances, we do not really encourage his awareness of how and why some utterances are more appropriate to the context than others which express a similar meaning. This awareness is a true reflection of his or her real communicative abilities or competence, not the knowledge of their literal meanings. My final concern regarding works which list all conventionalised utterances in English, is that there is an unintentional tendency to treat all language utterances as consisting of discrete language items. Logically, it is not possible to prescribe and specify all the various fixed expressions to be used for all types of written and spoken contexts. This is because there are socio-cultural aspects such as the level of formality, types of participants, levels of relationship, etc, that influence language use in a particular situation, and this makes it almost impossible to capture language use as a collection of discrete items. A possible detrimental repercussion for language learners that might result from my three concerns, is that any form of creative expression may be restricted from learners. By creative expression, I mean the ability to express a particular discoursal function which is as contextually appropriate as a commonly used formulaic expression. Secondly, learners should
not be restricted in making creative use of stylistic effects for texts that continually rely on such expression e.g. poetry.

The general shortcomings mentioned above of works on fixed expressions, idiomaticity and metaphorocity, make it essential to construct a better framework which reflects the linguistic phenomenon of how fixed expressions are used in language but at the same time, does not encourage a behaviouristic ideal in language learners. Furthermore, the framework must be applicable to the language classroom, promoting a simple awareness of meaning usage in fixed expressions.

It is my view that an organising framework which can fulfil some of the above conditions, can be developed through the use of simple syntactic structures or word patterns. The only works so far that have used this framework, are that done by Hunston, Francis and Manning (1997), Hunston and Francis (1998) who have focused entirely on verb patterns in their books Collins Cobuild Grammar Patterns 1: Verbs (1996) and Collins Cobuild Grammar Patterns 2: Nouns and Adjectives (1998) where they have classified various verb patterns into meaning groups. However, before explicating the value of such an organising framework, it is only fitting that there is a discussion about some general approaches that have been used in the study of fixed expressions, especially with regard to idioms and idiomaticity.

The next section will set a theoretical grounding for this chapter by providing a discussion of some important works done on fixed expressions from the perspectives of structural, functional and collocationist approaches.
1.3 Review of work done on fixed expressions: Structural, functional and collocationist perspectives

Some of the earliest and most extensive studies done on fixed expressions were by Makkai (1972, 1978) who worked on identifying idioms and attempted to separate idioms from non-idioms. Makkai's 1972 study advocated four criteria (1972: 58) for identifying idioms (a unit of at least two morphemes), which permitted no gradation between idioms and non-idioms. When classifying idioms, he identified two types: idioms of encoding and idioms of decoding (1972:38). Idioms of encoding were "phraseological peculiarities" or "phraseological idioms" (1972: 56) with collocational preferences and restrictions (e.g. the use of "at" in "he/she drove at 70 mph"). Idioms of decoding were "misleading lexical clusters" (e.g. hot potato, fly off the handle). Makkai analysed the latter type of idioms as belonging to either the lexemic or sememic area of idiomaticity (1972:117). Lexemic idioms were problems of lexicogrammar and semantics whereas sememic idioms were problems of pragmatics and socioculture. Thus, phrasal verbs, pure idioms and opaque compounds (e.g. forefinger, blackbird) were lexemic idioms but proverbs and formulaic greetings were sememic idioms. In his 1978 study, Makkai attempted to unite lexemic and sememic idiomaticity as a characteristic of a linguistic universal. He said that:

"There is a universal principle at work which unites lexemic and sememic idiomaticity: it is, on the one hand, the...phenomenon of semantic change from the concrete toward the abstract and, on the other hand, the related...phenomenon of psychological taboo repression with resultant obsessive repetition in adjacent semantic senses. These two principles together seem to be responsible for providing the cognitive and the unconscious force and motivation for the linguistic
mechanism of multiple reinvestment in which these two forces are realised in language on the overt level..." (Makkai: 1978:445)

Makkai elaborated further that as a result of uniting lexemic and sememic idiomaticity, idioms then follow a gradation from the metaphorically translucent forms (e.g. “go up” in “you’ll go up from associate to full next year”, meaning “promoted”) to entirely opaque ones (e.g. “white elephant” meaning “useless or unwanted property”)

Makkai’s 1972 and 1978 studies had the merits of being detailed in their investigation of the structures of fixed expressions but had two short comings. Firstly, his 1972 study on criteria for identifying idioms did not take into account idiom constructions which are phraseologically peculiar such as kingdom come, by and large, happy-go-lucky. The second shortcoming was based on his claim in his 1978 study where he claimed that idiomaticity is an empirical language universal because of the fit between “complex lexical material and the noncomplex lexemes of a language” (1978: 444). Makkai’s claim was based on only one example from Chinese where he illustrated that the word “quickly” derived from “horse” plus “back”. However, this principle while being possible for monosyllabic languages like Chinese might not operate in non monosyllabic languages like English, for example, in which fixed expressions in general are phrasal and the overall meaning is not always derived from single words (e.g. red herring, kick the bucket, off hand, etc).

Fernando’s (1978, 1996) studies on idioms and idiomaticity are similar in approach to Makkai’s as being structuralist, in the sense that the classification criteria for idioms are very specific, precise and do not allow for gradation. However,
while Makkai's identification criteria for idioms was based on the concept of stratification grammar, in her 1996 study, Fernando adopts a classification which uses contextualisation as one of the main criteria for distinguishing between idioms and word combinations showing idiomaticity.

She claims that, although at a superficial level, idioms and idiomaticity are related by virtue of "predictable co-occurrence of specific words" and that all idioms are idiomatic, at a deeper level, idioms show a narrower range of word combinations than idiomaticity. Thus phrases like *kick the bucket* and *French courage* are defined as idioms on basis of their lack of lexical substitutability or variability in their components - *boot the bucket, *kick the pail, *Greek courage, *French bravery, etc. Furthermore, idioms can also be defined by their fixedness in sequence so that there is no recombinability - *rain dogs and cats, *leap before you look, etc. Most importantly however, is the fact that the constituent parts of the idiom do not bear any semantic opacity in relation to the overall meaning of the phrase. For example, the constituents of the idiom *rain cats and dogs* have nothing to do with the overall meaning of the idiom which means "heavy downpour". In other words, a non-native learner of English would not be able to guess the overall meaning of the idiom just by looking at its constituent words because the idioms is what we term semantically opaque. In contrast, idiomaticity is seen in word combinations such as in conventionalised multiword expressions which show a high degree of lexical variability like in *stale milk, stale bread, stale story catch the post, catch my drift, catch my breath, etc* where there are many other possibilities of nouns and noun phrases occurring with *stale* and *catch*. 

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The features of idioms and multiword expressions showing idiomaticity (habitual collocations using Fernando’s terminology) discussed above however, are not as clear cut as it would seem. Fernando later identifies two other types of idioms - semi-idioms and literal idioms all positioned along a continuum between Pure Idioms at one end and Habitual Collocations at the other. Howarth (1998) has expanded on these classifications.

Fernando’s 1996 study has its shortcomings. Firstly, her extensive classification of the various kinds of idioms and those expressions showing idiomaticity seems rather confusing because examples of the different variants of idioms she has identified demonstrate a constant reciprocal overlapping. For example, it is difficult to properly differentiate an idiom like explode a myth as being semi-literal, literal or as a habitual collocation. As a semi-idiom, it fulfils the criterion of having a special co-occurrence relation in the sense that the literal constituent “explode”, in combination with the non-literal constituents “a myth” has an overall meaning “to reveal a fallacy”, but only in the combination “explode a myth”. However, the idiom can also be classed as literal by virtue of it sharing a similar and commonly used syntactic structure (V + NP) as catch the post or run a business which are both classed as literal idioms by Fernando. Conversely, catch the post and run a business can be classed as semi idioms instead of literal idioms since their literal constituents “catch” and “run” are not usually used in this way and have a special co-occurrence relationship with the non-literal constituents “the post” and “a business” to

2 The definitions of pure idiom, semi-idiom and literal idiom are given below:

a) pure idiom: a type of conventionalised, non-literal multi-word expression

b) semi-idiom (Weinrich 1969; Cowie 1981): has one or more literal constituents and at least one with a non-literal subsense, usually special to that co-occurrence relation and no other

c) literal idiom: meets the salient criterion for idioms: invariance or restricted variation. They are however, less semantically complex than pure and semi-pure idioms.
mean "to mail a letter on time" and "to oversee the administration of a company" respectively. Furthermore, a literal idiom such as *addled brains/eggs* can be classed as one of habitual collocation (e.g. *blue film/movie*) since the constituent "addled" can only co-occur with limited lexical items like "brains" and "eggs", thus showing restricted lexical variance between the constituents of the idiom. It is clear that a cover term should be used to condense the other sub-categories of idioms (semi, literal) and those of Habitual Collocations such as *conventionalised multiword expressions*. Fernando's continuum between Pure Idioms and Habitual Collocations could be simplified to:

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Pure Idioms ↔ Conventionalised Multiword Expressions ↔ Free Expressions
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where the two continua are inter-related by an essential middle component "Conventionalised Multiword Expression" which links the larger continuum between "Pure idioms" and "Free Expressions".

Whereas the above approaches by Makkai and Fernando can be considered structuralist in their focus on the intrinsic features of fixed expressions, another interesting approach to the analysis of fixed expressions is through psycholinguistics. This approach relies on the linguistic observation of communicative behaviour between speakers of a language, in which language is encoded in chunks rather than word by word. Early studies on the relation between fixed expressions and psycholinguistics were conducted by Corder (1973), Hakuta (1974) and Wong-Fillmore (1976) who all analysed, from a psycholinguistic perspective, phrasal units of idiomatic expressions which they termed holophrases, prefabricated routines and
patterns, and formulaic speech respectively. Later, an influential article by Pawley and Syder (1983) elaborated on the above studies of phrasal units. Pawley and Syder attempted to explain the link between the language behaviour of speakers in producing prefabricated chunks of language and their mental processing abilities. They highlighted the puzzles of nativelike selection and nativelike fluency: the ability of the native speaker to convey his meaning through expressions that were not only grammatical but also nativelike and the ability to produce fluent stretches of connected discourse when human capacities for encoding novel speech in advance or while speaking was severely limited. Consequently they argued that in order to account for such language behaviour, one had to take into consideration that in addition to the native speaker’s grammatical knowledge, he also had a “fluent and idiomatic control” of the language. They then suggested that such control relied on his or her knowledge of “sentence stems” which were “institutionalised” or “lexicalised”. Thus a lexicalised sentence stem, according to them was:

“a unit of clause length or longer whose grammatical form and lexical content is wholly or largely fixed; its fixed elements form a standard label for a culturally recognised concept....” (Pawley and Syder 1983; 191)

In short, an utterance would be considered native-like if it contained a lexicalised sentence stem where there were permissible expansions and substitutions.

While still keeping the focus on prefabricated chunks of language, Nattinger and DeCarrico (1992) however expanded the focus by discussing extensively in their own study how chunks of language were used from discourse perspectives, as means
of fostering relationships between speakers. Their work highlights the use of a large number of prefabricated chunks of language employed by native speakers according to the social context. These chunks are pre-assembled and of varying sizes. Furthermore, they are formulaic since they serve fairly predictable functions e.g. evaluating, advising, analysing, etc dependent on the social situation. Thus, examples of formulaic chunks given are: *time and time again*, *if I were you* and *the higher X, the higher Y* and they would be familiar utterances heard in recognisable social situations where the utterances serve a particular function like that given above. Other examples would be e.g. “Nice/pleasure to meet you” in an informal introduction or “you’re welcome” in response to “thanks”. Nattinger and DeCarrico term the pre-assembled formulaic chunks of language described earlier as *lexical phrases*, which they further define as lexico-grammatical units that:

> “exist somewhere between the traditional poles of lexicon and syntax, conventionalised form/function composites that occur more frequently and have more idiomatically determined meaning than language that is put together each time...” (Nattinger and DeCarrico, 1992: 57)

It is clear that for *lexical phrases* to exist “somewhere between the traditional poles of lexicon and syntax”, they would have to lie in a continuum between short, relatively fixed phrases such as *in the_____ of (midst, middle)* and longer variable phrases such as *if I could ________, then I would ________, etc* which act as basic frames (syntagms) allowing *potential* lexical and syntactical entries to act as *fillers* in the slots (paradigms). The basic frames will thus use the principles of “syntagmatic
simplicity” and “paradigmatic flexibility” which acts as a kind of cognitive processing model.

The model derived from a psycholinguistic perspective to demonstrate that language is strongly patterned has led to a rethinking of what constitutes the basic unit of meaning disambiguation. In this aspect, there exists debate as to whether a basic unit of meaning is phrasal (i.e. a group of set words, a collocation) or a single orthographic word. Principles behind cognitive semantics deal with the notion of prototype theory (see Rosch 1973, 1975, 1978) which is responsible for explaining how metaphorical meaning is constructed through mental concepts, realised through single words in language (see Lakoff and Johnson, 1980; Lakoff, 1987; Sadock, 1993; Reddy, 1993; Rumelhart, 1993; etc). A large part of the thesis is also devoted to the application of cognitive semantic principles in the construction and disambiguation of meaning in compounds and irreversible binomials (Malkiel, 1959; Birdsong, 1995) such as prepositional clusters. However, a more detailed discussion regarding the relationship between cognitive semantics, metaphoricity and meaning disambiguation will be given in Chapter 3. For the moment, I will concentrate on demonstrating the views of the collocationists.


A clear example of this is Cowie’s (1981) article which differentiates between a collocation and an idiom. He implies from the very start that for him, language exists in chunks. In his article, Cowie gives a narrower definition of a collocation than that originally postulated by Firth (1957). For Cowie, a collocation is defined as “a
composite unit which permits the substitutability of items for at least one of its constituent elements". According to this principle, an idiom would have non-substitutable elements whereas a collocation would. Thus, an idiom would be regarded as “lexically invariable”. Consequently, the differentiation between collocation and idiom is important for ESL/EFL learners because it enables them to see the distinction between collocations like *capture/grip one's imagination* or *explode a myth/belief* where there are substitutable elements and idioms like *kick the bucket, spill the beans* or even the idiomatic expression *wage freeze* where according to Cowie, the expressions are immutable.

Cowie's differentiation between a collocation and an idiom distinguishes between the two terms which have traditionally been generalised as “fixed phrases”, but also allows further study to be done on the varying degrees of substitutability or extent of frozenness that constitutes the formal properties of both. In the case of collocations, Cowie has discovered that there are certain collocability conditions which determine whether a collocation is restricted in its range or relatively open. These collocability conditions can be lexical and/or syntactic restrictions and automatically influence even the semantic fields to which these collocations belong. For example, in *run*, the collocational spread (*business, company, away, etc*) is much wider in its semantic field in comparison to *explode* (*myth, belief, idea, etc*) where the range of semantic fields is more limited. Thus, the term “composite element”, originally introduced by Mitchell (1971) and used by Cowie, allows this analysis of collocational spread by observing which substitutable elements are responsible for the degree of variability or frozenness in the composition of the element. Such semi-fixed combinations of collocates however are not without boundaries and Weinreich (1969)
asserts that these boundaries are semantically restricted. Some of these semantic restrictions are caused by the figurative meaning (the verb element) e.g. *catch/take/tickle somebody's fancy* or context where particular verbs can only be used in a specialised context, e.g. *foot the bill, curry favour*.

Semantic restrictions of the sort mentioned guide the selection process of potential lexical choices on the paradigmatic axis to fill in the slots provided by the syntagmatic axis. Cowie demonstrates the selection in the diagram below:

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(not) entertain (the) idea
        notion
        suggestion
        proposal
        doubt
        suspicion
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Whilst the various restrictions (figurative and context) guiding the co-occurrence of words in the composite unit of a collocation seemed clear enough, it is found that these restrictions also control the categorisation of idioms. Although it is clear that the parts of an idiom cannot be substituted and are thus immutable and that the "semantic interpretation...is not a compositional function of the formatives of which it is composed..." (Fraser, 1970:2), there is evidence from idioms that their semantic interpretation can be derived from their constituent parts in examples like *do a U-turn, change gear* where the figurative meaning becomes the literal meaning. These idioms are of course different from *bury the hatchet, kick the bucket, burn one's bridges* etc, which are semantically opaque and whose meaning cannot be derived from looking at its constituents.

Like Cowie, Sinclair's (1987, 1991a, 1996) works were based on the same notion that the unit of meaning is phrasal. The three studies he conducted expanded
on Cowie’s study of collocation but sought to form interrelationships between lexical collocation, syntactic and rhetorical structures. In his 1987 study, Sinclair bases his claims on Halliday’s (1961, 1966) model where Halliday postulated that lexis was the “most delicate grammar. Sinclair elaborates on Halliday’s notion of lexis and later observes that there is an "overlap between patterns of lexis on the syntagmatic axis and semantics on the paradigmatic axis". This overlap is demonstrated by him convincingly through corpus evidence (examining upward and downward collocates) of how a lexical item like back can form many syntactic frames with a multiplicity of word classes allowing many potential lexical items to be slotted into these frames, thus deriving many meaning senses for back. The two main principles at work in the process of this derivation of meaning is the open choice principle and the idiom principle. The open choice principle basically is:

"a way of seeing language text as the result of a very large number of complex choices. At each point where a unit is completed (a word or a phrase or a clause), a large range of choice opens up, and the only restraint is grammaticalness...

(Sinclair, 1987: 320)

In simple terms, the open choice principle allows what is called the "slot-and filler" model, similar to the one used by Nattinger and DeCarrico (1992), which assumes that the text is a series of slots which have to be filled by lexical items which are constrained by grammatical rules. Thus, all language is believed to be communicated through this principle and all grammars operate according to this open choice principle.
The idiom principle on the other hand asserts that:

"..words do not occur at random in a text, and that the open choice principle does not provide substantial enough restraints. We would not produce normal text simply by operating the open choice principle." (Sinclair, 1987; 328)

The principle sheds light on how language is ordered in a certain way and not as chaotic as implied in the open principle. There are available to the language user a large number of constructed or semi-constructed phrases or prefabricated chunks of language. These semi-constructed phrases or chunks of language are however analysable into collocative and syntactic segments, showing rigid phraseology, although the phrase or clause itself could constitute a single choice to the language user.

Following Sinclair's 1987 idiom principles, the notion of using collocational frameworks to investigate patterns of meaning became an important criteria in corpus linguistic observations. Furthermore, the use of corpus evidence to validate linguistic observations became significant in understanding the nature and structure of language such as in grammar and vocabulary (see Sinclair, Fox et al, 1990). One of the earliest works on collocational frameworks which demonstrated the inter relationship between lexis and grammar was conducted by Renouf and Sinclair in 1991. Their article describes a framework which was created to observe how common grammatical words combined with one another. The framework is also referred to as discontinuous pairings and the ones that Sinclair and Renouf have chosen e.g. "as + ? + as" consist of a sequence of two words "positioned at one word removed from each other". To
select the common patterns of co-occurrences between grammatical words, an analysis of the strength of collocation for each composite making up the grammatical sequence was used from the statistical measure of upward and downward collocation for each composite. This involved measuring the strengths of the collocates to the left and right of the lemma. Analysing the strength of each composite is useful in determining whether

⇒ a particular composite(s) or none of them is responsible for the selection of lexical words from a pool of potential lexical entries surrounding the grammatical sequence or

⇒ a particular lexical word in the span is responsible for the selection of this particular grammatical sequence.

A recent work which has also made use of collocational frameworks to investigate some phraseological tendencies in the core vocabulary of English is that by Stubbs (1998). In an article, Stubbs explores how a single lemma or word-form shows strong expected patterns of co-occurrence (see also Stubbs, 1995). He demonstrates through corpus evidence how the “lexical attractions” has a variable word span to the left and right, which is not determined by syntactic boundaries but through lexical, grammatical, semantic and pragmatic relations between constituents. The interrelationship between these three aspects are based on Sinclair’s (1996) principles of analysis of phrasal units of meaning (collocation, colligation, semantic preference and prosody) and from his 1991 position regarding lexis and meaning. In 1991, Sinclair postulated that:
"...each meaning can be associated with a distinct formal patterning...There is ultimately no
distinction between form and meaning... (The) meaning affects the structure and this is...
the principle observation of corpus linguistics in the last decade..." (Sinclair, 1991a:6-7)

It is from Sinclair's principles of linguistic analysis to corpus evidence that
Stubbs (1998) investigations are based. Stubbs also suggests through his corpus
findings that there is a need for a model "which represents the balance of variation and
norm in language use" and adds that a probabilistic model based on Sinclair's
principles will have implications for several areas, namely connotation, textual
cohesion, competence, performance, lexis-grammar relations and language learning.
These areas of investigation will however rely on the use of corpus evidence in the
studies conducted. A discussion on the use of corpora, its advantages and
disadvantages especially in language teaching will be dealt with in greater detail in
Chapter 5.

1.3.1 Some general applications of the collocationist approach

Collocationist investigations and corpus evidence have been applied in the
important area of textual cohesion. Two studies in that area were conducted by Moon
(1994, 1998) and Hudson (1998) where the linguists focused on the development and
interaction of words in expressions and how they acquired meaning through the
interactions with textual and contextual references. However, while Moon's 1994
study analysed fixed expressions in general, Hudson's was confined to that of fixed
expressions involving complex adverbs.

Moon's 1994 study focuses the reader's attention on the paradigmatic
properties of frozen expressions and their role in interaction. Whilst work has been
done on the typology (lexical structure and degree of frozenness) and syntagmatic properties of fixed expressions, Moon prefers to highlight the interaction between the lexical choices on both the syntagmatic and paradigmatic axes i.e. how each lexical entry on the paradigmatic axis is selected as a potential choice based on the “nature, content and development of a text”. How each of these potential choices is eventually selected would be a “meaningful choice” (See Sinclair, 1987: 321) made in the eyes of the speaker or writer of the text.

To demonstrate the interaction between the lexical choices on the syntagmatic and paradigmatic axes, Moon bases her text on a newspaper article from The Guardian (4th June 1988). She classifies various types of fixed expressions into:

1) metaphors (idioms, institutionalised metaphors),
2) formulae (fixed strings which are “decodable” and have pragmatic meaning),
3) anomalous collocations (collocations that are grammatically ill-formed, restricted or that use a word that is unique in the combination),
4) others (proverbs and phrasal verbs)

as well as the textual functions of each of these types of fixed phrases. The five textual functions are:

1) informational
2) evaluative
3) organisational
4) modalising
5) speaker’s reaction to extra-linguistic situations

(See Moon, 1994: 125)
I agree with Moon that fixed expressions are lower-order components which contribute to specific higher-order or macro-functions of Halliday’s (1978) framework such as those listed above. However her position that:

"...the selection of a fixed expression is nearly always as significant with respect to the interpersonal component either directly because it is communicating an attitudinal point or a reaction, or less directly, because it lexicalises a mitigation of the message or pre-emption of disagreement..." (Moon, 1994: 127)

has its limitations. Moon’s text was taken from a newspaper article which from the genre of reporting shows many fixed phrases of the interpersonal component such as attitude, evaluation, etc. Her analysis was thus based on a particular genre and could not be considered representative as a description of all language behaviour. If we were to consider a wider range of texts, we could find texts which reveal only the ideational component (information, organisational) and not the interpersonal component. Such texts are found in instruction manuals (recipes, DIY manuals), bus and train time tables. Fixed expressions can also be found in the form of collocational frameworks (see Sinclair 1991a) using grammatical or functional words e.g.s. “a spoonful of”, “turn off the mains” which serve to convey only ideational but not interpersonal functions of the text.

The subject of Hudson’s (1998) book is her study of how the development of the component words in expressions and development of the expressions as a whole are influenced by an interaction at three levels: discourse (pragmatic inferencing), conceptualisation (salience reduction) and realisation (fixedness). Using her case study of some fixed expressions involving complex adverbs, Hudson attempts to show
that expressions acquire new meanings through the above three interactional processes. Firstly, there is pragmatic inferencing at the discoursal level which then progresses to the next stage where there is semantic and phonetic reduction, so much so that the meanings supplied by individual components of the expression are beyond conceptualisation. At the final stage, the whole expression thus becomes fixed and invariable although orthographically it might consist of more than one word. Hudson also claims that the individual components of an expression show features which make them easily grammaticalised whilst the expression as a whole, is available for lexicalisation\(^3\) (e.g. common-sense, cupboard, fishwife, limestone, etc), grammaticalisation\(^4\) (e.g. "while" as a temporal connective) and pragmaticisation\(^5\) (e.g. "indeed"). Her analysis sheds light about the usage of these complex adverbs in everyday interactions and about the way in which the meanings of these complex adverbs can be further disambiguated using "textual and contextual references within and beyond the utterance". Her investigation rests on the following two assumptions:

i) Fixedness criteria can be set up in terms of a single set of variability constraints only if the expressions under investigation are of similar structure (she quotes Quirk and Mulholland, 1964). Since complex adverbs do not have uniform structure, such a set of variability constraints cannot be used as criterial evidence for fixedness.

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\(^3\) Writer's own examples
\(^4\) Writer's own example
\(^5\) Writer's own example
ii) Notwithstanding the first assumption, the identification of variability constraints can be used as a selective device whereby potential complex adverbs might be recognised.

I find the attempt by Hudson to redefine fixedness in the use of a selective or focusing device for the purposes of complex adverbs questionable. For an expression to be fixed, there must be some basic aspect of immutability or patterning framework in the composition of the expression as a whole (see works by Renouf and Sinclair, 1991; Fernando, 1996; and Cowie and Mackin, 1975; Cowie, 1981, 1992), at least within the cline of fixed expressions detailed in Nattinger and DeCarrico (1992). A fixed expression should not be based on any particular selective device such as the keyword all chosen by Hudson in combination with other lexical items, but on some form of patterning. If not, there would be no difference between a collocational phrase where there is too much of a “collocational spread” encompassing many semantic fields and that of a fixed expression where the idiomatic meaning is more or less restricted in usage. For example, in Hudson's data, it is difficult to see why all this time, all over the field, all my heart, are termed fixed expressions and not simply collocational phrases like all afternoon, all along, all skin and bones, all the world, all kinds, all the advantage. There is no invariable constituent made up of a particular patterning in form (e.g. Prep+(and)+Prep, V+Prep, Adj/Adv+Prep) or “predictable co-occurrence of specific words” (e.g. not only X but also Y, if I X, then I Y, the ...er X, the ...er Y, as... as), except for a focusing device - all. In short, the items in Hudson's study which are taken for analyses - all, combined with words which have non-salient meaning (not prototypical in meaning)- time, right, heart, way, fronts, sides, while,
means seem to have no appropriate basis of their selection in the formation of fixed expressions, except that they consist of mainly lexical words. For purposes of clarity to the reader, there should be some explanation at least as how and why these non-salient words were selected: perhaps based on e.g. some discoursal topic or semantic field. Non-salience itself as a criterion seems too general and ambiguous since it encompasses lots of other delexicalised words with non-prototypical meanings besides those mentioned above.

Another important application of the collocationist approach to language behaviour is the issue of communicative competence. Yorio (1980) was one of the first to claim that since idioms and routine formulas formed the basis of most communication and “organise(d) reactions and facilitate(d) choices, thus reducing the complexity of communicative exchanges” (1980: 434), that the selection of material for the teaching of conventionalised forms – “need, usefulness, productivity, currency and frequency, and ease” (1980: 437) - should deal with the development of skills such as grammaticality, appropriacy and effectiveness, which are skills essential in the development of communicative competence. In fact, Sinclair (1991b) asserted that some the skills required for communicative competence relied on understanding how language was used. These skills included subliminal mastery of phraseology, received information about grammar and lexis, strict linguistic inference (including textual inference) and aspects of culture. On the other hand, Yorio (1980) emphasised mainly a kind of competence that promoted a “linguistic repertoire” rather than the a “linguistic grammar” according to John Gumperz (Gumperz, 1966: 97-113). By linguistic repertoire, it is meant that the language learner develops a knowledge of the range of applicability of his utterances according to the situation. This is preferable to
possessing a knowledge of “linguistic grammar” which is being simply able to produce these utterances. The distinction between linguistic repertoire and linguistic grammar is similar to that of Saussure’s langue and parole used in Hymes (1971) argument about the nature of communicative competence.

In terms of language teaching, since there is strong evidence of the link between collocationist investigations and psycholinguistic approaches, a model which allowed easy access and retrieval to conventionalised utterances as well as demonstrated how a variable expression is made up of a simple compositional structure could be used as a means of activating language awareness in learners about language behaviour. This model shown below relies on the intersection between the syntagmatic and paradigmatic axes and condenses the above argument.

```
paradigmatic flexibility

Could
Would

paradigmatic flexibility

pass the salt
close the window

Modal —- you —- VP

(syntagmatic frame)
```

A model like the one above would help fluency in speech since there is easy and efficient retrieval of prefabricated phrases. Thus, attention is directed towards more important stretches of discourse which might help speakers and hearers make sense of the information given at a textual level instead of at word or sentential level. This kind of language behaviour is supported by Becker(1975:72) who agrees that since the use of lexical phrases is pervasive in speech, it could only imply that:
"..the process of speaking is compositional. We start with the information we wish to express or evoke and we haul out of our phrasal lexicon some patterns that provide the major elements of this expression..." (Becker, 1975:72)

In the application of the above model to language learning, two of the most innovative study aids based on corpus evidence which were designed to demonstrate how language that is patterned can be analysed using Sinclair's (1991a, 1996) principles are by Hunston, Francis and Manning (1996) in their books Collins Cobuild Grammar Patterns 1: (Verbs) and Collins Cobuild Grammar Patterns 2: (Nouns). In their 1997 article which was based on their book Collins Cobuild Grammar Patterns 1: Verbs published by HarperCollins in 1996, the writers sought to combine grammar and vocabulary which are conventionally taught as separate areas in language learning. The principle behind the approach is clearly a collocationist one which sees lexis and grammar as being inextricably bound (see Sinclair: 1991a, 1996 and Stubbs: 1996, 1998). The writers further add that since “all words can be described in terms of patterns” and that “words which share patterns also share meaning”, they propose a lexical approach to teaching language in which teachers are encouraged to use patterns which combine both grammar and vocabulary. They also assert that collocationist principles are a more efficient way of organising language patterns. Furthermore, important aspects of language learning such as comprehension, accuracy, fluency and flexibility are applied by students, subsequently reducing the mental load of remembering vast amounts of grammar rules and vocabulary.
The approach taken by Hunston et al which combines aspects of grammar and vocabulary using patterns in words emphasises the organising principle behind most lexical approaches to teaching and learning (see Willis, 1990 and Lewis, 1993, 1997).

While the discussion in this section has dealt with some general applications of collocationist principles, the thesis also sets out to apply these similar principles with an integrated focus of: a) analysing patterning in fixed expressions consisting of prepositions and consequently b) applying the findings pedagogically to language teaching and learning. Hence, it would be appropriate from this point onwards to focus on the prepositional cluster; a particular kind of idiomatic fixed expression which has been formed by patterning. The next section will concentrate on its status as a type of binomial or compound word.

1.4 Prepositional clusters as Binomials

According to Malkiel's (1959), a binomial is defined as:

"the sequence of two words pertaining to the same form-class, placed on a identical level of syntactic hierarchy, and ordinarily connected by some kind of lexical link"

(Malkiel, 1959: 113)

In the light of the above definition, prepositional clusters such as up and down, in and out, ins and outs, over and over, on and off, etc, could be considered binomials since the constituents found in each cluster - up, down, in, out, over, on, off - belong to the same “form class” of prepositions and are all connected by the lexical link and. The clusters given are idiomatic lexical units with literal meanings which can be
deciphered compositionally since the examples given contain prepositions with strong spatial concepts (see Section 1.7 for a more detailed discussion on the tension between collocationist and cognitive semantic perspectives with regard to meaning disambiguation). However, what is of interest in this study is that some prepositional clusters such as up and down, in and out, down and out, up and about, out and about, out and away, over and beyond, above and beyond, etc, are what Malkiel terms “irreversible binomials” since the prepositional constituents can only occur in a fixed order, are frozen in that arrangement and as a result could be considered formulaic. While there are prepositional clusters which are irreversible binomials such as those illustrated above, similarly there are those that are reversible such as on and off and those that have a repeated prepositional constituent such as over and over, on and on, through and through, by and by, etc.

Malkiel hypothesises various rules to explain how one item becomes more dominant than the other in binomials including those of rhyme and alliteration, sound distribution, priority in direction, cultural ranking, etc. However, Carter and McCarthy (1988: 25) point out that in some cases, the ordering in binomials can be language and culture specific. They give the example that the expression come and go in English contrasts with French aller et venir. Birdsong (1995), on the other hand, suggests that word order in binomials could be influenced by the interaction of three factors (processing constraints, iconicity and markedness). In the case of binomials for example, iconic principles rule that the first constituent depends on the speaker’s own directional bearing. Thus, one would say here and there, back and forth and similarly, in the case of prepositional clusters, up and down, over and beyond, up and about, where the first constituent is based on the speaker’s first directional movement. This
iconic principle has been grounded on Lakoff and Johnson's (1980: 132) characterisation of the "me-first" orientation.

It is probably valid that the ordering of prepositional constituents in a cluster does demonstrate some of Malkiel (1959), Lakoff and Johnson (1980) and Birdsong's (1995) principles, however it is not within the scope of the thesis to discuss this issue at great length. A more detailed discussion on binomials in general can be found in Malkiel (1959), Makkai (1972), Fillmore et al (1988: 507) who use the term "paired parallel phrases", Lambrecht (1984), Lakoff and Johnson (1980) and Birdsong (1995).

Another issue that needs to be highlighted in this section is the debate about whether the iconic principles proposed by Birdsong (1995) would be useful in the teaching and learning of binomial expressions. Birdsong claims that it is the interaction of linguistic criteria (e.g. phonological, semantic and markedness constraints) as well as psycholinguistic criteria (e.g. iconicity and processing constraints) that should be taken into account in the teaching of lexicalised forms such as binomials since they tap L2 "speakers' intuitions" and are favoured by native speakers in L1 settings.

On the one hand, I agree that Birdsong's iconic principles will make it easier for students to remember and disambiguate the meanings of binomial expressions that consist especially of words with strong spatial (see previous examples) concepts or marked concepts such as good and bad, sweet and sour, etc. The constituents of binomial expressions of the above examples are antonymic as well as others such as here and there, in and out, come and go, up and down. However, I also agree with collocationist investigations that the modular approach deriving from Birdsong's iconic principles does not reflect two important characteristic about language. Firstly,
psycholinguistic investigations have illustrated that language consists of prefabricated chunks and by virtue of this, the binomial expressions given above exist as whole expressions and not single words. Secondly, binomials expressions are idiomatic and according to collocationists, their overall meaning should be disambiguated as phrasal units interacting with other words in the same lexical environment.

While I have touched on the tension that exists between the modular and collocationist approaches in the previous section and will highlight it again in various parts of this study, it is appropriate that I highlight my own position regarding this tension between the two approaches. I am convinced that both approaches are equally valid and tenable when seen from two perspectives. The modular approach focuses on the internal relationship that exists between the constituents in a binomial, e.g. how iconic principles give rise to antonymic, synonymic or repeated constituents and how these principles influence word order within the binomial. The collocationist approach on the other hand focuses on the external relationship of the overall binomial expression with other words in a surrounding context, thus giving rise to the phenomenon of idiomaticity and metaphoricity.

It is also my view that both approaches are equally valid and beneficial for teaching and learning purposes where the relationship within the binomial expression as well as the relationship between the expression and its lexical environment are investigated. Which approach the teacher chooses will depend on his or her pedagogical aims. One pedagogical aim could be to raise awareness in language learners about the meaning usage in fixed expressions in which the collocationist perspective is suitable. Another pedagogical aim however could be to raise awareness and help students remember various binomial expressions by observing the
relationship that exists between constituents in fixed expressions which have very marked concepts. In this case, the modular approach is more suitable than a collocationist one. It is with both pedagogical aims in mind that I have approached my study of prepositional clusters where I will investigate the relationship of the prepositional constituents within the cluster as well as the external relationship of the overall cluster with other words in the same lexical environments in order to analyse idiomatic and metaphorical meaning. The rationale behind integrating both approaches in my study is to activate a kind of descriptive awareness about structure and usage in fixed expressions such as prepositional clusters. This issue will however be discussed in greater detail in Chapter 5.

1.5 Prepositional clusters as compounds

While the above discussion has demonstrated that there are examples of prepositional clusters which can be classed as binomials, the discussion will now focus on other examples of prepositional clusters which are formed as a result of compounding. One similarity that a binomial shares with a compound is that sometimes in compounds, their constituents come from the same form class (e.g. *bookstore* (Noun + Noun)). However, unlike a binomial, a compound is "devoid of a link and conjoined" (see Malkiel 1959: 139). Also, compounding or composition according to Bauer (1983: 11) is "roughly the process of putting two words together to form a third", which is not the case in binomials. I would like to suggest that prepositional clusters can also be formed from such a process in the sense that when two prepositions are "put together" they form a new word in the sense that a new meaning is formed. For example, the clusters *upside down, round about, inside out*
and *down under* can be considered compounds by virtue of the fact that a new meaning is formed derived from the spatial meaning of the two constituent. Besides the formation of prepositional clusters from two prepositions, other cluster compounds can also be formed when the two constituents, not of the same form class are conjoined, for example *in depth, down payment* (Prep + Noun), *put-on, drop out* (Verb + Prep), *over achieve, out do* (Prep + Verb).

The wide range of binomial and compound examples of English prepositional clusters discussed here and the previous section demonstrates that even within the clusters, there exists a wide range of patterning.

As one of the foci of the thesis is to evaluate the efficacy of applying a pedagogical framework in language teaching based on patterning and metaphoricity in prepositional clusters (see Chapter 5), it is not within the scope of the thesis to provide an exhaustive survey of prepositional patterning. Some examples of prepositional patterning can however be found in Section 3.10. See Marchand (1969), Adams (1973) and Bauer (1983) for a more detailed discussion of patterning in English word-formation.

1.6 Prepositional clusters as the object of study

The following sections will now discuss the rationale behind selecting prepositional clusters as the object of study. The selection is discussed from three perspectives; pedagogical, collocationist and psycholinguistic, and cognitive.
1.6.1 From a pedagogical perspective

My interest in prepositional clusters as examples of binomials and compounds, in particular, those of the pattern Prep + and + Prep and Prep + Prep, was sparked from a pedagogic encounter, when two EFL students that I had been teaching asked me for the meanings of some prepositional cluster expressions they had heard native speakers of English commonly use and had discovered in the course of watching television. The expressions they were curious about were over and beyond, ups and downs, out and about, ins and outs and on and off. They had tried to decipher the meanings of these prepositional expressions themselves by looking up dictionary entries listed for the individual prepositions that made up the expression. However, they were confused by the myriad of different prepositional usages that the dictionary had listed. The difficulty encountered by my students in finding out the meaning of common prepositional expressions prompted me to make a quick survey of some popular English Grammar coursebooks. I picked the Collins Cobuild English Guides 1: Prepositions (1991), Advanced Grammar in Use by Hewings (1999) and a dictionary - Collins Pocket Reference English Dictionary (1992) - to find out how prepositions were usually taught or listed. I found that the meanings of prepositions were usually taught/listed as:

1) having a basic spatial or temporal meaning such as “location in space and time” for the preposition at, “above” for the preposition over, “from within” or “away” for the preposition out, etc
2) idiomatic phrases which comprise one or two lexical words, in which the prepositions were a part of e.g. *have a down on* (to have a grudge against), *keep an eye on*, *down-to-earth*, *on the downgrade*, *out of date*, *out of pocket*, etc

3) common compound constructions involving prepositions e.g. *go downhill*, *downtrodden*, *downpayment*, *outcry*, *outcast*, *outbreak*, etc

4) phrasal verb and prepositional phrase constructions e.g. *draw (it) out*, *mucked up*, *step up*, *take off*, *put up with*, *fix (it) up*, etc

Most times, fixed prepositional clusters involving prepositions in combination with other prepositions or words that could function as prepositions, were not listed except for more well-known binomials and compounds like *ins and outs*, *upside down*, *inside out* and *down and out*.

Another reason for my choice of selecting prepositional clusters in this study derived from a cursory survey I carried out of some popular English grammar coursebooks which showed that fixed prepositional clusters did not form part of the content. What formed the content for the topic on prepositions was their basic spatial and temporal usages. However, some modern language coursebooks, like *Collins Cobuild Grammar of English* (1995) by Willis, *English Vocabulary in Use* (1997,1999) by McCarthy, O'Dell and Shaw, and *English Vocabulary in Use* (1997) by Redman have gone a step further by showing how single prepositions take on different meanings when used in various contexts, as well as their idiomatic usages, formations (e.g. binomials, see McCarthy *et al*, 1997: Unit 77) and collocations. The focus once again though, is on single prepositions and not phrasal units of prepositional clusters. In this regard, Hunston, Francis and Manning’s (1996) and
Hunston and Francis’ (1998) works on verb patterns were very influential in my decision to study fixed prepositional expressions from common structural patterns which they are found in. Some of these patterns form binomials and compounds such as Prep + Prep, Prep + and + Prep, Prep + Adj/Adv, Noun + Prep, etc, which have been isolated as a result of observing idiomatic expressions like round about, up and down, ups and downs, in and out, ins and outs, on and off, etc. Like Hunston et al I was also interested in using patterns as a means of encouraging comprehension, accuracy, fluency and flexibility in language learning. However, to these four aspects of language learning, I would like to add a fifth - awareness. By this I mean an awareness of common structures and patterns, based on idiomatic usages, functions and metaphoricity which are derived from natural authentic communication. I refer to this kind of awareness in my research as Conscious Investigation, because it promotes investigative questioning (see Chapter 5).

1.6.2 From a collocationist perspective

My decision to use grammatical patterns and hence prepositional clusters was also largely influenced by a conviction that the “pre-assembled formulaic chunks of language” that Nattinger and DeCarrico (1992) referred to did not necessarily have to comprise some lexical words as many studies on idiomaticity (e.g. Moon, 1994, 1998; Fernando, 1996; Gibbs, 1995) have suggested in order to qualify as examples of pre-assembled language. Prepositional clusters could also qualify as pre-assembled formulaic chunks of language, by virtue of their meaning usages (some of which are idiomatic) and their collocational relationship with words in a particular semantic environment. This has been demonstrated through the use of corpus evidence in
section 1.2. Furthermore, the grammatical functions of these fixed prepositional expressions could also vary in some respects from that of their composites as the examples in the next section 1.6.3 will demonstrate. Based on these observations, prepositional clusters could be considered lexical units of meaning. A discussion of this claim will be fully detailed in Chapter 2 as well as in Appendix X, using principles of corpus analysis.

1.6.3 From a cognitive perspective

I had observed based on my own usage of prepositional cluster expressions that the idiomatic usage of the overall cluster could be different from the prepositional components that made them up. The difference in idiomatic usage could be a result of metaphorical extensions of the basic spatial or "prototypical" meaning of the composites as cognitive semantic principles would illustrate (see previous section and Chapter 3). The following examples demonstrate how these metaphorical extensions are derived from their composites. They also illustrate the differences in usage and grammatical function between single prepositions and prepositional clusters as mentioned briefly in Section 1.5.2:

**in, out:**

1a) He is going *in* the building (spatial meaning: towards interior of, *preposition*)

1b) He is going *out* of the building (spatial meaning: towards exterior of, *preposition*)

**in and out:**

1c) Breath *in and out*. (metaphorical extension of *in, out*: shows repeated action, *adverb*)
**ins and outs:**

1d) He knows the *ins and outs* of the matter (*metaphorical extension of in, out*: details and complexities, *noun*)

**down, out:**

2a) She walked *down* the stairs (*spatial meaning: towards lower position, preposition*)

2b) She walked *out* of the house (*spatial meaning: towards exterior, preposition*)

**down and out:**

2c) It’s incredible how a *down and out* railroad became so famous (*metaphorical extension of down, out: shabby and forgotten, adjective*)

2d) Nobody loves you when you’re *down and out* (*metaphorical extension of down, out: defeated, adverb*)

It is clear from the examples above, that the disambiguation of the overall meaning in the prepositional cluster can be derived compositionally since the prepositional constituents have strong spatial concepts attached to them. This claim will be investigated in greater detail in Chapter 3 and other examples of prepositional clusters with strong spatial concepts can be found in Appendix X.

I am aware of the tension that exists between the collocationist and cognitive perspectives on meaning disambiguation in idiomatic expressions. This has been discussed briefly in Section 1.3 and will be mentioned again in Section 1.7 and explicated in greater detail in Chapter 3. This issue however has not been touched on here as the aim in this section is to illustrate how prepositional clusters can be viewed from two quite different perspectives. Suffice it to say for now that precisely because of the tension existing between the two perspectives, prepositional clusters are an interesting object of study.
Since Section 1.5 has focused on the rationale of how prepositional clusters can be interesting objects of study from three perspectives, it would now be fitting to present some reviews of recent work done on prepositions.

1.7 Review of some general work conducted on prepositions

In proportion to work carried out on fixed expressions composed of lexical words, there has been little if no work (to my knowledge) on fixed prepositional clusters. However there has been much work conducted on single prepositions, focusing on some prepositions. The lack of work on fixed prepositional clusters could be due to the reason that prepositions have always been an area of difficulty due to their anomalous nature with regard to meaning (see the discussion in Section 0.2). There is no consensus even amongst linguists whether prepositions do or do not have any meaning as a result of their strange variability in various contexts. For example, we say on Monday but in February, on the right but in the centre. However, we also say in honour of, in connection with, etc. It is quite clear from the examples that prepositions show a strange variability in their positions with other grammatical classes in a sentence, contributing to a confusion of what their actual meaning could be. As a result, most studies conducted on prepositions have tried to investigate their meaning from various perspectives, ranging from a) structural, generative grammar where the focus has been on their categorisation, collocations with other parts of speech, syntactic functions (see Fraser 1976; Aarts 1989), b) semantic-syntactic perspectives where prepositional objects are examined in relation to the clause according to syntactic constraints and semantic continuity (see Vestergaard 1977), c) semantic-pragmatic perspectives (Bolinger 1971; Ping Chen 1986) where the focus
has been on the relationship between prepositional meaning with elements of information so as to give particular discoursal functions and d) cognitive principles where spatio-directional meaning of prepositions are extended to various mental domains of reference, thus giving rise to multiple meanings or polysemy (see Brugman 1981; Hawkins 1984; Lakoff, 1987).

To illustrate how prepositions have always been an area of difficulty, Rastall (1994) highlights the anomalous nature of prepositions and the reasons for this. He asserts that:

"...so long as we restrict ourselves to the expression of simple spatial relations and movements, the teaching of prepositions in English presents relatively few problems..." (Rastall 1994: 229)

However in everyday language interaction, it is clear that the above statement does not hold true, as prepositions are found not only to refer to spatial positions and movement, but also with certain fixed combinations with words such as on account of, in connection with, in danger, under threat, etc. It is clear that these fixed combinations involving prepositions do not refer to space and movement. In fact, the information value of these prepositions is nil and Rastall refers to them as “dummy” grammatical forms. These dummy grammatical forms cannot be replaced by any other element in the fixed combinations given above and serve no significant function or meaning. To remove the anomalies of prepositional usage, Rastall suggests that “regularising tendencies corresponding to the communicational usefulness” of prepositional usage are already at work. Three such regularising tendencies are:
a) the disappearance of communicationally redundant prepositions e.g. *play football* versus *play at football*

b) using the same preposition for groups of semantically related signs, it is not clear what Rastall means by semantically related signs but I think he refers to meaning groups of the same sense e.g.s *threat to, danger to, hazard to, risk to, menace to*, etc

c) the extension of the range of some prepositions over others e.g.s *the decision by the U.N (of), the success by the team (of), the action by the government (of), the criticism by the opposition (of), etc*

Based on the evidence that he gives about the anomalous nature of prepositions and the regularising tendencies at work with regard to communicationally redundant prepositions, Rastall suggests that the learning of prepositions, especially those which are communicationally redundant, should be done in a given context or through grammatical simplification. Some examples are *the explanation for the decision/he explained the decision*.

While Rastall’s evidence showing the anomalous nature of prepositional usage is quite convincing but I do not agree that the “dummy” prepositional forms he suggests cannot be replaced by any other element in the fixed expressions given. For example, the preposition *in* found in the expression *in danger*, can indeed be replaced by *out of* to form the expression *out of danger*. The latter expression does indeed have a different meaning from the previous one.

Another point that I find lacking is his attempt to suggest some learning strategies for “communicationally redundant” prepositions, based on this state of flux and the regularising tendencies. He mentions but does not elaborate on how “the
whole prepositional array should be learned in the given context”. Such an approach is not feasible since it is difficult to create a particular genuine context - written or spoken in which a communicationally redundant preposition would occur.

Rastall approach to analysing the meaning of “communicationally redundant” prepositions by investigating context and lexical environment is collocationist in its approach. However, Lindstromberg (1996) attempts to defy modern collocationist views about the interpretation of a phrasal unit of meaning by claiming that there is “a strong tendency for every word to have a single “general” meaning” (Lindstromberg: 1996: 225).

He uses a cognitive perspective in his article, citing Charles Ruhl’s (1989: 6) arguments, Brugman (1981, 1988), Lakoff (1987) and Lakoff and Johnson’s (1980) work on prototype theory to linguistics as evidence to support his contention. Lindstromberg’s assertion that:

"the tendency is for individual words, even ones so common and so variably usable as prepositions, to have a relatively small number of related meanings which combine with meanings of other words in a more or less modular fashion to form overall meanings" (Lindstromberg: ibid.)

forms the basis of his hypothesis that prepositions in fact have a “relatively small number of related literal meanings”, and there exists one which is psychologically “prototypical” or the “best example”. Also, the rest of the literal meanings taken on by the prepositions are actually extensions of this prototypical meaning. Using his prototype theory, Lindstromberg thus proceeds to suggest that classroom teaching of prepositions can be systematic if the following learning points (LPs) are observed:
1) using schematic pictures or icons

2) clarifying meaning by considering how semantically-related prepositions may differ in meaning

3) relating late-taught senses to those learned earlier

4) clarifying metaphorical extensions.

I quite agree with Lindstromberg’s claim that words have a general prototypical meaning, which is true when one considers that prepositions like in, out, up, down have a strong prototypical meaning which comes from their spatial and temporal orientation. If one considers single lexical words, evidence is even stronger for his claim. I agree that even metaphorical extensions or figurative use of this particular lexical word derive from a basic prototypical meaning:

Let us use rise as an example:

The sun rises in the east...

His meteoric rise to President...

It is clear from the two sentences above that the meaning of “meteoric rise” is derived from the first sentence showing the prototypical meaning of “rise” as “ascend”.

While I agree in general with his prototype theory, this theory however cannot ascribe meaning to all language items in English, especially examples like phrasal verbs. It is clear that the overall meaning of a phrasal verb is completely different from its constituent parts. For example, the meanings invoked by the phrasal verbs “put up” and “carry out” in the respective sentences:

Mary put John up for the night...(to give accommodation)

We have to carry out her proposal...(proceed with)
cannot be derived in a "modular" fashion by using the prototypical meaning of the components - *put, up, carry, out* in the phrasal verbs, as suggested by Lindstromberg. Furthermore, in the case of fixed expressions such as idioms, it is highly unlikely that one is able to infer the meaning of *kick the bucket* or *French leave* by using the prototype or modular method.

Even in the case of prepositions with weak spatial concepts that Rastall terms "communicationally redundant", such as *by, about, beyond*, meaning disambiguation cannot rely only on prototype theory but perhaps on observation of their usage using corpus principles of analysis. An example to show that Lindstromberg’s prototype and modular principles for meaning disambiguation need to be improved on is the word "by". Assuming that the preposition *by* does have a prototypical meaning which is "along", how then would one explain that the meaning of the expressions *by and by* (soon) is different from the prototype meaning of *by* as "along". Furthermore, it is unlikely that one is able to infer the meaning of *by and by* from the composite module *by* unless we attach a common metaphorical association to the word *by* as meaning "soon". Then it would make sense to say that "by and by” means “in a short time” coming from the combination of a prototype meaning and common metaphorical association of the word to give the overall meaning of “by and by” as “along soon”. Lindstromberg does acknowledge that *by* “does not have a meaning in one context” but fails to explain how its association with other composites in fixed expressions generates a completely different overall meaning.

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6 Kövecses and Szabó (1996) however have discussed “regular” meanings of phrasal verb particles as well as the Cobuild and Cambridge Dictionaries of Phrasal verbs.

7 other fixed expressions involving *by* are *by and large, come by* where their overall meaning cannot be inferred from their composites.
The collocationist and prototype approaches to disambiguating prepositional usage advocated by Rastall (1994) and Lindstromberg (1996) show a theoretical tension. While Rastall claims that prepositions should be interpreted as a phrasal unit by observing their usage in the context and environment, i.e. its collocation with other words, Lindstromberg postulates that prepositional usage should be disambiguated modularly. My purpose of highlighting this tension between the two approaches is not to suggest that one approach is better or more correct than the other. Rather, my purpose is to emphasise that it is for the precise reason that prepositions are anomalous in nature that both approaches have to be called into play in any descriptive analysis of prepositional usage. As discussed previously, when the modular approach to investigating prepositional meaning fails, especially in phrasal expressions where prepositions with weak spatial concepts such as by, beyond, about are constituents, a collocationist approach has to be applied where meaning disambiguation relies on observing how that phrasal unit interacts with other elements around it and realised in that particular context. Refer to Appendix X for some examples of such prepositional clusters like by and by, through and through, out and out, etc.

While I have only reviewed Lindstromberg's prototype approach to the analysis of prepositions which is one study on the application of cognitive principles to meaning disambiguation in prepositions, there are other studies dealing with cognitive semantics and prepositions which can be found in Chapter 3. The application of cognitive principles to work conducted on metaphoricity is discussed at greater length as well as the relevance of these works to my investigation on idiomatic usage and meaning disambiguation in prepositional clusters. For the moment
however, I will focus on the first part of my study which applies collocationist principles to meaning disambiguation in fixed expressions in the analysis of prepositional clusters in their surrounding lexical environment. This analysis can be found in Chapter 2.

1.8 Conclusion and summary

Before moving to the analysis in Chapter 2, I would like to make a general summary of the following issues which I have raised and have more or less formed the introductory theoretical foundation for my research:

1) Word patterns can be an organising principle to capture as many types of grammatical clustering patterns possible e.g. prepositional patterns, verb patterns, adverbial patterns, etc. These grammatical or word patterns can form the basis for capturing many examples of formulaic chunks of language used in genuine language communication. Some examples of common word patterns found in English word formation are binomials and compounds.

2) Most studies on metaphoricity have conveyed the impression that idiomatic meaning is a result of the lexical words that are found in fixed expressions. However, linguistic observation shows that idiomatic meaning can also derive from expressions composed solely of grammatical words like prepositions.

3) Some examples of prepositional clusters have been observed to have meaning usages and grammatical functions which could be different from their composites.
4) The absence of prepositional clusters in some popular coursebooks could reflect that there needs to be a greater general awareness about authentic language use among language teachers and students.

5) While there exists a tension in the principles of meaning disambiguation between collocationist and cognitive perspectives, both these principles are valid in the investigation of prepositional clusters as a result of the anomalous nature of prepositional usage.

A general hypothesis that summarises the above issues raised is given below:

**General Hypothesis:**

Research on “conventionalised form/function composites” which are found in natural language communication has focused almost entirely on those consisting of lexical words. However, there exist prefabricated chunks of language or fixed expressions, composed solely of grammatical words, which have not been investigated. One example of this kind of fixed expression is prepositional clusters which could have a linguistic identity different from their composites in terms of idiomatic meaning usages (some of which are metaphorical) and grammatical distribution. Such features which have been derived from linguistic observation of language use could be taught in the language classroom as part of Investigative-Oriented Learning.
Chapter 2: General Hypothesis and Sample Analyses

2.0 Introduction and Sub-Hypothesis 1:

In Chapter 1, I had mentioned briefly the existence of pre-assembled formulaic chunks of language which Nattinger and DeCarrico (1992) assert:

"exist somewhere between the traditional poles of lexicon and syntax, (and are) conventionalised form/function composites that occur more frequently and have more idiomatically determined meaning than language that is put together each time..."

(Nattinger and DeCarrico, 1992: 57)

They could also be taken from grammatical categories such as prepositions or words that could function as prepositions (see Section 1.2). These pre-assembled formulaic chunks of language could form fixed prepositional clusters which are commonly used in English e.g. round about, in and out, ins and outs, up and down, ups and downs, on and off, etc. I had also mentioned briefly that these fixed prepositional clusters showed lexico-grammatical behaviour which could be different from the components that make them up in two aspects (see also Section 1.2):

a) meaning usage: a fixed prepositional cluster could have a meaning usage, different from its components. Some of these meaning usages are metaphorical.

b) grammatical distribution: a fixed prepositional cluster could have less varied grammatical functions than its components

Based on the general hypothesis created in Section 1.6, a sub-hypothesis can now be formed investigating the lexico-grammatical aspect of the general hypothesis - the grammatical functions and idiomatic meaning of prepositional clusters. Some of this
idiomatic meaning can be metaphorical. This investigation would form the **second stage of the research** which is aimed to demonstrate that fixed expressions composed of grammatical words are units of meaning as a result of having particular grammatical functions and idiomatic meaning, some of which are metaphorical.

**Stage 2: Sub- Hypothesis 1**

Prefabricated chunks of language or fixed expressions composed of grammatical words like prepositions can be considered *units of meaning* because they have a linguistic identity which is distinct from their components in terms of grammatical function and idiomatic meaning (some of which can be metaphorical).

In order to investigate the validity of the above sub-hypothesis, I have chosen to do an analysis of three fixed phrasal expressions, *round about, in and out, ins and outs*, which have prepositional constituents and are commonly found in English. At this point, it is necessary to briefly explain the basis of their selection.

The three examples were chosen after observing a frequency table of a tagged corpus (CANCODE), shown in Frequency Table 1, which highlights the most common grammatical class of collocates that co-occurs with a preposition. The collocates that interest me most from the frequency table are [T] (preposition) and AND which occur in positions 14 and 15 respectively since they are the only two grammatical collocates present, besides THE. The rest of the collocates are lexical words which are not relevant at this point of the research since I am interested in examining fixed expressions which consist solely of grammatical words. Although the collocate THE is a grammatical word, it does not interest me much because it is a
determiner which would immediately follow after a preposition according to English
grammar rules and is thus unlikely to form any fixed expression.

**Frequency Table 1: Collocates for Prep [T])**

WordSmith Tools Collocates
frequency... based on 16000 concordance entries

<table>
<thead>
<tr>
<th>Rank</th>
<th>Collocate</th>
<th>Frequency</th>
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<td>10</td>
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<td>JBAS</td>
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<td>2043</td>
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<td>16</td>
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<td>1778</td>
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<td>17</td>
<td>VPPRES</td>
<td>1688</td>
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<td>18</td>
<td>CAND</td>
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<td>20</td>
<td>M</td>
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</table>

A = Adverb
AINTJ = Adverb, interjection
CAND = Conjunction
DA = Indefinite article
DTHE = Definite article
JBAS = Adjective, base
M = Number
NSG = Noun, singular
NPL = Noun, plural
PPERS = Pronoun, Personal
T = Preposition
VI = Verb, Infinitive
VPPAST = Verb, participle, past
VPPRES = Verb, participle, present

Using the collocates [T] (preposition) and AND as examples of grammatical
constituents in a prepositional cluster, I thus tried to form some possible syntactic
patterns. The first pattern I formed was: [T] + [T] (Preposition + Preposition)
where I found many examples of clusters which are commonly found in written or
spoken English such as round about, down under, inside out, etc

For the second pattern, I initially tried to form a cluster using [T] + AND.
However, since there are infinite collocational possibilities with this combination, I
narrowed the scope by trying to observe a possible grammatical collocate for the node
{[T] + AND}. Consequently, on observing the collocates that co-occurred within a
span of four words to the left and right of the node {[T] + AND}, it was found that a
common grammatical collocate that immediately followed after the node was yet
another preposition \([T]\) (see Frequency Table 2 below). Thus, the second cluster pattern which I formed was \([T] + \text{AND} + [T]\) (Preposition + AND + Preposition) since there are many common prepositional clusters in English that exhibit this particular pattern. Some examples of these clusters are *in and out*, *ins and outs*, *by and by*, *on and on*, *over and over*, etc which are used frequently in written and spoken English.

**Frequency Table 2: Collocates for Prep + And ([T] + AND)**

WordSmith Tools Collocates
frequency... based on 272 concordance entries

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\(A = \text{Adverb}\)

\(CAND = \text{Conjunction}\)

\(NSG = \text{Noun, singular}\)

\(PPERS = \text{Pronoun, Personal}\)

\(T = \text{Preposition}\)

\(VI = \text{Verb, Infinitive}\)

\(VPPAST = \text{Verb, participle, past}\)

\(VFPRES = \text{Verb, participle, present}\)

As there are numerous examples which exemplify the two prepositional cluster patterns that I have formed, I have chosen three clusters at random – *round about*, *in and out*, *ins and outs* – which typify common fixed expressions in English and that are composed of grammatical words. These three examples given below would now be used to investigate the hypothesis at the beginning of this chapter:
- Prep + Prep e.g. round about
- Prep + and + Prep e.g. in and out, ins and outs

(Refer to Appendix X for other examples of prepositional clusters that exhibit the above patterns together with analyses and commentaries)

I will now use the term prepositional clusters to refer to the patterns formed above. As defined in Section 0.2, a prepositional cluster is one which is a binomial, compound or strong collocation that contains a prepositional constituent.

This is in keeping with the topical focus on prepositions. I would also like to make it clear at this point that in my analysis, I have included words that function also as prepositions, besides their other grammatical functions such as adverbs, adjectives and complements, in order to lend a broader scope to the study. Finally, I have chosen not to make a distinction between prepositional clusters used in written or spoken English since their usage lies on a continuum as a result of a variety of complex interacting factors involved in clusters e.g. level of formality, participants, type of relationship, genre, etc. Furthermore, since the thesis will later focus on developing an ELT methodology using prepositional clusters as an example, based on linguistic principles of analysis from Corpus Analysis and Cognitive Semantics, it is beyond the scope of this thesis to analyse prepositional clusters according to written and spoken usage.

In the analysis, I would be making use of Sinclair's (1996) principles of collocation, colligation, semantic preference and semantic prosody to observe the idiomatic usage and grammatical distribution of the three clusters round about, in and out, ins and outs. Data selected for the analysis has been taken from three corpora BNC¹ (written and spoken using SARA software, 50 examples), COBUILD² (written

¹ BNC is an acronym for British National Corpus.
and spoken, 40 lines) and CANCODE\textsuperscript{3} (spoken, 40 lines), once again, to lend a broader scope to the study. However before the analysis, a brief description of the BNC, COBUILD and CANCODE corpora will be given.

2.01 Description of Corpora and copyrights

Except for the CANCODE corpora, the BNC and COBUILD Bank of English (BOE) corpora have been accessed through their web sites. The total number of words for this study, collected from all three corpora is 150 million (5 million from CANCODE, 100 million from BNC and 45 million from COBUILD). Taking all three corpora into account, there is a total of 25 million words of spoken English data (5 million from CANCODE + 10 million for COBUILD + 10 million from BNC) and 125 million words of written English data (90 million from BNC + 35 million from COBUILD).

The BNC\textsuperscript{4} corpus covers British English of the late twentieth century and is designed to represent as wide a range of modern British English as possible. The written part (90\%) includes, for example, extracts from regional and national newspapers, specialist periodicals and journals for all ages and interests, academic books and popular fiction, published and unpublished letters and memoranda, school and university essays, among many other kinds of text. The spoken part (10\%) includes a large amount of unscripted informal conversation, recorded by volunteers selected from different age, region and social classes in a demographically balanced way, together with spoken language collected in all kinds of different contexts, ranging from formal business or government meetings to radio shows and phone-ins. The generality

\textsuperscript{2} COBUILD refers to the Bank of English corpus, started by Collins Cobuild and the University of Birmingham

\textsuperscript{3} CANCODE stands for Cambridge and Nottingham Corpus of Discourse in English.

\textsuperscript{4} The information here has been taken from the BNC web site: http://sara.natcorp.ox.ac.uk
of the Corpus makes it useful for a very wide variety of research purposes, in fields as
distinct as lexicography, artificial intelligence, speech recognition and synthesis, literary
studies, and all varieties of linguistics. Oxford University Press has copyright clearance
for the bulk of the material included in the BNC, in collaboration with Longmans.

COBUILD corpus data is drawn from the Bank of English corpus created by
COBUILD at the University of Birmingham. The data\(^5\) is composed of a wide range
of different types of writing and speech. It contains samples of the English language
from hundreds of different sources. Written texts come from newspapers, magazines,
fiction and non-fiction books, brochures, leaflets, reports, letters, and so on. The
spoken word is represented by transcriptions of everyday casual conversation, radio
broadcasts, meetings, interviews and discussions, etc. The material is up-to-date, with
the majority of texts originating after 1990. Taken together the Bank of English
provides objective evidence about the English which most people read, write, speak
and hear every day of their lives.

CANCODE stands for 'Cambridge and Nottingham Corpus of Discourse in
English'; the corpus was established at the Department of English Studies, University
of Nottingham, UK, and is funded by Cambridge University Press (CUP). Sole
copyright of the corpus resides with (CUP), from whom all permission to reproduce
material must be obtained. The total corpus consists of five million words of
transcribed conversations. The corpus tape-recordings were made in a variety of
settings including private homes, shops, offices and other public places, and
educational institutions, focusing on non-formal situations, across the islands of
Britain and Ireland, with a wide demographic spread. For further details of the corpus
and its construction, see McCarthy (1998).

\(^5\) The information here has been taken from the COBUILD web site http://titania.cobuild.collins.co.uk
2.1 Analysis 1: Prep + Prep: round about

The evidence that will be presented in the following analysis of the cluster round about seeks to investigate sub-hypothesis 1 that this cluster has a linguistic identity which is different from its components round and about, in terms of idiomatic usage and grammatical distribution.

2.1.1 Comparison of grammatical behaviour between the cluster round about and its components round and about

On close analysis, it was found that as a cluster, round about occurs mainly in adverbial position indicating place (orientation, direction) and time (when) whereas its components round and about could occur as either prepositions or adverbs, thus already marking the cluster's formal difference grammatically from its components.

The data below will demonstrate this difference.

Components: round, about (prepositions)

..return to the heart instead of passing round on the body... (SARA line 6)
...black curls bunching round the rim of his hard hair... (SARA line 13)
...clawed his way round the car...(COBUILD line 31)
...received the heart of a lad round the corner...(COBUILD line 34)
...I'll do a Bobbit round her neck...(CANCODE line 14)
...But I bet I went round that blooming loo about six times... (CANCODE line 33)
...is concerned about a system which causes so much emotional damage...(SARA line 9)
...without drawing it, try and talk about a square...(SARA line 23)
...there are a lot of myths about babies...(COBUILD line 8)
...I fee pretty good about our government...(COBUILD line 23)
..the er thing about the machine was in eighteen thirty eight...(CANCODE line 1)
...Telling you *about* his experience, you know... (CANCODE line 10)

(See SARA-Appendix 1A and 1B)

(See COBUILD-Appendix 1A1 and 1B1)

(See CANCODE- Appendix 1A2 and 1B2)

**Components:** *round, about* (adverbs)

...and screaming in anguish as the nose slithers *round*, that the Dodge... (SARA line 2)

...hitting the wall, sickening thuds, cracked his head, turning *round* and *round*... (SARA line 11)

...Stephen brought Bill *round* and we spent an amusing... (COBUILD line 2)

...we’re not going *round* frantically buying up dogs... (COBUILD line 13)

...when you come *round* to February, it starts lengthening... (CANCODE line 24)

...some models are still *about*, alive and kicking... (COBUILD line 5)

...Cromwell knocked it *about* during the civil war... (COBUILD line 11)

...It’s taken till *about* five years ago before Nottingham realised... (CANCODE line 28)

...well... *about* four hours ago... (CANCODE line 32)

...It was *about* three weeks after the opening night... (SARA line 13)

...walking or sitting *about* in out dressing gowns... (SARA line 41)

(See SARA - Appendix 1A and 1B)

(See COBUILD - Appendix 1A1 and 1B1)

(See CANCODE - Appendix 1A2 and 1B2 for more examples)

**Cluster:** *round about* (adverb modifier of place-orientation, direction)

And that’s in that place just *round about there*... (SARA line 29)

...we returned by the water side *round about the North-point*... (COBUILD line 33)

**Cluster:** *round about* (adverb modifier of time - when)
...the post-war pattern settled into what looked like immobility *round about 1950*...

(SARA line 1)

*Round about four o’clock in the afternoon*, he would sometimes forget Morris....

(SARA line 14)

...*Round about the same time*, Douglas...(COBUILD line 2)

...It’s going *round about 250 earth days*...(COBUILD line 9)

...when was it dear? - *round about two* ...(COBUILD line 12)

...you’re looking at about *round about twenty years*...(CANCODE line 5)

...actually have a meeting *round about early autumn*...(CANCODE line 20)

...I think it was *round about the time* I started seeing...(CANCODE line 33)

Short comment:

While the above examples demonstrate that colligationally, *round about* functions mainly as an adverb showing an estimation of place and time, most grammar coursebooks books have traditionally tended to regard its components, *round* and *about* as single prepositions only. Also their usage is usually explained in terms of place and subject matter respectively as shown in the following which have been taken from popular EFL coursebooks:

- *Mr Wood has brought the car round the house* (taken from *English Practice Grammar*, 1995, pg 178)


- *We talked about a lot of things in the meeting* (taken from *Essential Grammar in Use* (Intermediate), 2nd Edition, 1994, pg 264)
The previous three sentences illustrate that this is an erroneous treatment of prepositions in general, because a preposition like about is used not only to mark a relationship between two entities grammatically but more frequently, when it is in combination with round conveys the meaning of approximation. I shall consider the two sentences:

a) I'll come about four o'clock

b) I'll come round about four o'clock

Both sentences can be observed to mean the same as the sentence “I’ll come approximately at four o’clock”. However, most of the time, examples of the type found in sentences a) and b) are not taught in ESL classrooms to convey the meaning of approximation but more traditionally about is taught as a preposition related to subject matter e.g. “Tell me about your adventures”. In short, the predominance of examples illustrating only the deictic usage of round and about and the absence of fixed expressions composed of prepositional clusters e.g. round about (including many others) illustrates that coursebook writers have tended to rely on intuition rather than observing authentic language usage.

The following example taken from a grammar coursebook (A University Grammar of English, 1987) illustrates the kind of prescriptive pedagogy more commonly involved in dealing with a preposition such as about as a complementation of a verb or adjective” (Quirk and Greenbaum, 1987: 45 in A University Grammar of English)

*eg:
He told me about his new adventures* (from A University Grammar of English, pg. 45)

When trying to convey the sense of time, it is commonly found that ESL or EFL students are taught to use the preposition “at” to speak about time - “I’ll come at
four o'clock" – rather than “I’ll come round about four o’clock”. However, data from the corpora shows that the use of about and round about are commonly used to convey the meaning of approximation of both time and place references in informal spoken English rather than the use of “at”. The meaning of approximation conveyed is also supported by data from the corpora such as those below:

...it will stand me in good stead when I’m about 40 and ....(SARA line 1)

...and the actual figure would be about 13%... (SARA line 5)

...it took them about five minutes of hemming and hawing...(COBUILD line 12)

...round about the time the baby’s born...(CANCODE line 2)

...Round about nine, nine nine ninety five summat (CANCODE line 27)

(See SARA - Appendix 1C, COBUILD Appendix 1C1 and CANCODE - 1C2 for other examples)

In the case of the preposition round, it is interesting to note that while grammatically marking a relation between two entities, it behaves syntactically as synonymous to the other preposition around. Both can be used interchangeably as prepositions in the examples “I live round here” and “I live around here”. However, in comparison to the cluster round about, there were no instances of data showing the composite round conveying the meaning of approximation. Rather it emerged that it is used rather as a preposition, adverb, phrasal verb, adjective and noun to convey a sense of orientation or a meaning of circularity. The following sentences demonstrate this observation:

preposition:

....we went right round the grounds... (CANCODE line 31)

...followed Lorenzo round the sides of the church...(COBUILD line 32)

...began to make a slip-knot round it...(SARA line 1)
adverb:
...and then I turned round and saw the telly...(CANCODE line 34)
...gently work it round in larger circles...(COBUILD line 14)
...coax his niece round to his point of view...(SARA line 23)

phrasal verb:
...and round off with a piece of Lemon Madeira...(COBUILD line 26)

adjective:
...and pale round black rocks...(COBUILD line 5)
...addressed in my mother's round handwriting...(SARA line 5)

noun:
...three holes of his third round...(COBUILD line 7)
...Second round of elections...(SARA line 40)

The above examples demonstrate that the composite round can take on numerous grammatical functions unlike the cluster round about, which serves a mainly adverbial function. Contrary to intuition, clusters do not serve exactly the same grammatical function as their components. This observation has implications for language teaching because it establishes the need to consider how students can be made critically aware of such differences in grammatical behaviour between the two. EFL learners of English should not be misled into assuming through logical reasoning that knowledge of the grammatical functions of certain word forms would automatically apply to a cluster that is composed of these word forms, as evidence from the corpora shows otherwise. It is to prevent such misconceptions that I agree with one of Michael Lewis' (1997) suggestions that a way of teaching language could be following a slot-and-filler framework, similar to the word pattern framework that I discussed previously in Section 1.3. This framework would be better equipped to
allow a more holistic development of a learner's lexico-grammatical knowledge through a critical awareness of how grammar and vocabulary are inextricably bound in many ways and are not two linear and parallel aspects of language learning.

2.1.2 Differences in meaning usage between *round about* and its components

While the previous section demonstrated quite clearly that a prepositional cluster could have a linguistic identity different from its components by virtue of its less varied grammatical functions, this claim about the cluster having its own linguistic identity has not been supported in coursebooks. A popular grammar coursebook like *Collins Cobuild Grammar of English* (1995) has also stated that "many words can be used as prepositions and as adverbs with no difference in meaning...". This statement is misleading because it seems to exclude the existence of phrasal or multi-word units which are composed solely of grammatical words and are commonly found in written and spoken English. Thus the statement presumes that a random selection of two prepositions combined together in a fixed cluster like *round about* would have "no difference in meaning" as the individual constituents (*round, about*) of the cluster. However, the next few sections will seek to demonstrate, using the example *round about*, that the components *round* and *about* convey somewhat different meanings from the cluster *round about*.

*Cluster: round about*

**Sense 1: Approximation**

...to manage a husband and six children in three rooms on *round about* a pound a week...
(SARA line 21)

...where she starts crying *round about* the end of the queue for tickets...(SARA line 27)

...No, I said *round about* six o one (SARA line 40)
...it’s round about, it’s round about the same... (SARA line 45)
...the early 1950’s, round about then... (COBUILD line 13)
...the suburbs of places round about Jerusalem... (COBUILD line 24)
...comes round about half four...(CANCODE line 11)
...half an hour or round about...(CANCODE line 23)
...its usually round about mid January...(CANCODE line 31)

In comparison, round showed commonly meanings associated with circularity and orientation whilst about showed a meaning related to subject matter. It is thus inaccurate to assume that round about as a fixed cluster has only one meaning related to its components and no other, as this has been shown not to be the case from previous examples of round and about taken individually. In fact from analysis of the data, it was found that round about had five other different meanings besides “approximation”. These other meanings were “indirect”, “road junction” (when round-about is hyphenated)“surround to protect”, “in the vicinity”, and “concerning”.

Sense 2: “indirect”

The meaning of round about in this case to mean “indirect” was found in the following data:
...the melody flowed up and down and round about in a long cadence... (COBUILD line 17)
...She led Gwer up by a round about way, then waited... (COBUILD line 19)
...You could have spoken in a very round about way... (COBUILD line 28)
...Kind of a round about cousin... (COBUILD line 27)
...You elements that clip us round about, Witness that here Iago doth (COBUILD line 34)
...They said it in a round about way for two and a half hours... (SARA line 43)
...this sort of longer round about ways...(CANCODE line 18)
From the data, it is clear that the meaning of indirectness is conveyed by a particular action on the part of an agent as seen by the frequent use of pronouns “She”, “You”, “They” and the action that causes this indirectness is shown to be a prolonged one as seen by the verbs like “led”, “spoken”, “clip”, “said”. Thus the semantic preference for words referring to people and prolonged action leads to a prosody of circuitousness which interestingly enough is similar to the figurative meaning of *round* as circular.

**Sense 3: Traffic Road junction round central island**

By figurative and literal extension of the previous meaning of “indirect”, it is clear how the meaning *round-about* (hyphenated so as to function as a noun) as “traffic road junction round central island” was derived.

...just after the *round-about* intersection with the B3274... (COBUILD line 5)

The reference to the words “intersection” and highway number “B3274” indicates its common use in motoring.

**Sense 4: Surround to protect**

The meaning of “surround to protect” is demonstrated from the following lines:

...and *round about* him, his band of assorted... (COBUILD line 4)

...a good mud wall to be cast up *round about* the factory... (COBUILD line 30)

...built of cedar and fortified *round about* with sharp trees...(COBUILD line 32)

...but God is *round about* me, and shall I be afraid... (SARA line 2)

...and the glory of God shone *round about* them .... (SARA line 3)

...I’ll put a girdle *round about* the earth... (SARA line 6)

In the above examples, it is observed that the prosody of guarding or protection is derived mainly from verb phrases and that there is a semantic preference
of these verb phrases for verbs showing dynamic activity e.g. "cast up round about the factory", "fortified round about with sharp trees", "shone round about them", "put a girdle round about the earth".

It is interesting to note that it is possible to substitute the word "encircle" in all these examples in place of "round about" without loss of meaning, thus showing that the cluster *round about* can be considered an idiomatic usage (See Cowie, 1981). But if we were to substitute either "round" or "about" in place of the cluster, for example: "and round/about him", "cast up round/about the factory", "fortified round/about with sharp trees", "shone round/about them", "put a girdle round/about the earth", we would find that there is a slight difference to the shade of the meaning. By this, I mean that the connotational strength of "protect" and "guard" which makes up the overall prosody of the meaning is lost because we would then be left with its denotative meaning of "around" as "on every side of".

**Sense 5: in the vicinity**

The disambiguation of this particular meaning was observed after analysing the following sentences:

...it's based on villages and towns *round about*, like Barancija... (COBUILD line 8)

...we visit the little villages *round about*... (COBUILD line 15)

...for the town and all the farmers *round about*... (COBUILD line 22)

...many a ginger-haired bairn in the villages *round about* who've lost their..(SARA line 9)

...the people *round about* hissed and told her to sit down... (SARA line 20)

...I glanced *round about* myself, on the lookout for clues... (SARA line 24)

...places to stay *round about* where they were...(CANCODE line 25)

The examples above show that the meaning "in the vicinity" was derived after observing that the cluster was used as an adverbial of place. This meaning was further
conveyed by its semantic preference for noun phrases especially composed of words like "villages and towns", "people", "farmers" which are words that mark out an area in the vicinity. The semantic preference for words such as those mentioned above thus connotes a prosody of possible human activity.

**Sense 6: Concerning**

I found a few examples (given below) which seemed to show that one of the meanings conveyed by the fixed cluster *round about* could be "concerning", as there seemed to be reference to a subject being discussed which both speaker and hearer had preknowledge of. However, since I could only find 3 examples out of a total of 130 examples, this particular meaning cannot be completely confirmed.

**egs:**

...Well *round about* that point, we’ve got to be very careful about interpreting the model as reality... (SARA line 22)

...They’re *round about* to no good... (SARA line 41)

...I’ll tell you *round about* these children...(CANCODE line 36)

2.1.3 An aside: The discoursal function of *round about*

Analysis of the data also revealed an interesting discoursal function of the cluster *round about* - vagueness or ambiguity on the part of a speaker or writer (see Channell, 1994). Analysis showed that facts, be it the actual time, place, location or direction where events or actions had taken place, tended to remain obscure and indeterminate on the part of the speaker or writer. This observation was clearly discerned from the following examples:

...Who remembers the public-service training films they used to show on TV, *round about news time*... (SARA line 4)
...the ones that start just above the knees and peter out somewhere *round about the coccyx*... (SARA line 8)

...The Watch Committee then, this was what, *round about nineteen thirty* perhaps, then agreed that we should have a police car... (SARA line 35)

...as I was saying usually between sort of *round about the middle of the day* there’s people knocking on the door... (SARA line 49)

...I lost interest *round about week two*... (COBUILD line 3)

...between the two stations *round about 500 times a second*... (COBUILD line 11)

...the charismatic renewal system *round about 1973* was the most notable... (COBUILD line 29)

...the birth of Christ was *round about September*... (CANCODE line 34)

...usually *round about mid January*... (CANCODE line 31)

From the above examples and other examples from the three corpora, it is evident that approximations and estimations are inclined to be used where there is reference to past, present and future events or activities. This observation was illustrated on analysis of the semantic prosody of the lexical environment surrounding *round about*, where it was found that there were many phrases containing verbs, adverbs and adjectives related to time such as "remembers", "since the war", "this history in Arabic", "the 1956s", "six o’clock next morning", "during the early spring", etc.
2.1.4 Table summary of differences between *round about* and its *components*

The table in the next page shows diagrammatically the difference between the cluster *round about* and its components *round* and *about*. It can be seen that the cluster does not correspond similarly to its components in the aspects of grammar and in meaning usage since the grammatical function as well as the distribution of meaning associated with the components and cluster are different. This observation corresponds to Sinclair’s unit of meaning as “a single, independent meaningful choice of words normally showing independent variation” and “can be associated with a distinct formal patterning” and (See Sinclair, 1991a:6 and 1996: 75) which implies that the cluster *round about* would qualify as a single lexical unit with its own lexicogrammatical environment.

<table>
<thead>
<tr>
<th>grammatical function</th>
<th>round about (cluster)</th>
<th>Round(composite 1)</th>
<th>about (composite 2)</th>
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<tbody>
<tr>
<td>preposition</td>
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<td>✓</td>
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<tr>
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<tr>
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<tr>
<td>adjective</td>
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<tr>
<td>phrasal verb</td>
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<th>meaning usages</th>
<th></th>
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</tr>
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<tbody>
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<td></td>
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</tr>
<tr>
<td>course of action</td>
<td>✓</td>
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<tr>
<td>subject matter</td>
<td></td>
<td>✓</td>
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<td>✓</td>
<td>✓</td>
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<td>✓</td>
<td>✓</td>
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<tr>
<td>indirect path</td>
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<td>✓</td>
</tr>
<tr>
<td>traffic junction</td>
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<td></td>
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<tr>
<td>concerning (subject matter)</td>
<td>✓</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>marker of informality</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

2.1.5 Paradigmatic and syntagmatic differences between *round about* and its *components*

Since it has been demonstrated in the previous sections that the cluster *round about* differs from its components *round* and *about* in terms of grammatical function and usage, this would imply thus that paradigmatically and syntagmatically, the cluster and its components would prospect for their own
entries from a pool of potential lexical words; content or functional. The arrow diagrams below are meant to demonstrate how each meaning associated with the cluster *round about* on the syntagmatic axis (which shows the combination of words-grammatically) would prospect different lexical choices from the paradigmatic axis whilst grammatically also opening up certain classes of words, different from those of its components *round* and *about*.

A) The cluster: *round about*

1) **Approximation**

- time/place

   e.g.s. places *round about Jerusalem*
   come *round about half four*

2) **Surround**

- dynamic verb object (person/place)

   e.g.s. cast up *round about the factory*
   God is *round about me*

3) **vicinity**

- place/people

   e.g.s. the little village *round about here*
   people *round about her hissed*

4) **traffic-junction**

- adverb/adjective

   e.g. the huge *round-about intersection*
5) concerning

people/issue

round about +

e.g.s. well, round about that point...

I'll tell you round about these children

6) indirectness

manner/way/relative

(in)+ a round about +

e.g.s. spoke in a round about way/manner

is kind of a round about cousin

B) The composite round:

1) circularity

object (noun)

a/the + round +

e.g.s. the ‘round’ dance

2) course of action

event/performance

a/the + (adj) + round of +

e.g. a tough round of negotiations

C) The composite: about

1) subject matter

event/performance/emotion

(noun)

+ about + (pronoun/determiner) +

e.g. to talk about their grief

From the diagrams, it is clear that in no way are the lexical choices on the paradigmatic axis of the cluster round about and its components round and about similar for each derived meaning of the cluster and those of its individual components. Furthermore, the types of word classes that the lexical choices prospect by virtue of their lexis is different in each case. Thus, by observing the interrelation of...
lexis and grammar, it can be shown once again that the cluster and each of its components should be considered individual units of meaning.

2.2 Analysis 2: Prep + and + Prep: in and out, ins and outs

The previous sections have been concerned with showing that the prepositional cluster round about which demonstrates the word pattern Prep + Prep, can be considered a lexical unit of meaning by virtue of its idiomatic meaning and grammatical functions. Analysis in the next few sections will also seek to strengthen this claim further by applying similar principles of corpus linguistics, this time using the examples in and out, ins and outs which demonstrate the word pattern: Prep + and + Prep. The analysis is found on the next page.
2.2.1 Comparing the grammatical behaviour of the clusters *in and out* and *ins and outs* with their components

Once again, from analysis of the clusters *in and out* as well as *ins and outs*, that like *round about*, it was demonstrated that the grammatical distribution of the components differed from the cluster. For example, the component *in* had many grammatical functions: as a preposition, adverb (see examples below) or an inextricable part of some fixed expressions, whilst the cluster *in and out* and its extension *ins and outs* were more specific in their grammatical function, acting only as adverb and noun respectively.

**Component in: (preposition)**

...was forced to parade, bouquet *in* hand, from behind...(SARA line 1)

...A survey *in* 1970 found that of all mentally handicapped people *in* hospitals...(SARA line 6)

...some of the people whose lives are described *in* the Old and New Testaments...(SARA line 31)

...And *in* a tower tersely called God knows...(COBUILD line 3)

...diamond which became an eye *in* his peacock throne... (COBUILD line 15)

..trace a general theme *in* two or more science fiction novels... (COBUILD line 39)

...It’s *in* a letter. I can’t remember...(CANCODE line 11)

...It actually happen *in* America...(CANCODE line 18)

**in: (adverbial)**

...I thought Billy would have been *in* by now...(SARA line 50)

...the contras which they were bringing *in* through the Canal free Trade Zone...(COBUILD line 37)
...Walsh might have wriggled that one \textit{in} towards the end...(COBUILD line 38)

take you outside and beat your face \textit{in}...(CANCODE line 19)

Jean took pictures of erm fitted \textit{in} and you know...(CANCODE line 20)

\textit{in}: (adjective)

...Animal Prints are \textit{in}. Get it on... (COBUILD line 1)

Denim Blue Jeans are \textit{in} for the Second Consecutive Year Worldly... (COBUILD line 13)

\textit{in}: (as part of many fixed phrases)

...and \textit{in conjunction with} the Ministry of Defence...(SARA line 35)

...and \textit{in particular} to St. Bartholomew's church...(SARA line 37)

...\textit{In fact}, he and Raeder were jointly...(COBUILD line 11)

...At the end of the rally \textit{in favour of} white bread...(COBUILD line 12)

...\textit{in his opinion}, on the basis of loyalty...(COBUILD line 14)

...That may account \textit{in part}, for the poor showing...(COBUILD line 18)

...had grabbed a rose \textit{in passing} and taken it...(COBUILD line 19)

...a little more drama \textit{in store}...(COBUILD line 23)

\textit{In the absence of} sales, the gradual...(COBUILD line 30)

From the above examples, it is clear that \textit{in} is an integral part of many fixed expressions, all of which serve a myriad of syntactic functions and markers of discourse. However, the main point to note is that these expressions are frequently used by native speakers in written and spoken English but not easily taught in school unless as discrete items.

While the above examples clearly show that the component \textit{in} has a multitude of grammatical functions (preposition, adverb and as part of a fixed expression), the
next few examples will further demonstrate that the component *out* displays the same kind of varied grammatical distribution behaviour. In the examples, *out* was also found to function as an adverb, adjective or as part of some fixed expressions.

**out (adverbial):**

...Desperately, Wilson *burst out*, I hope I have not *spoken out* of turn ma'am. (SARA line 3)

...To feed this demand the squid boats *go out* all year... (SARA line 8)

...I *pushed* it right *out*... (SARA line 50)

...long skirts went *out* last year.... (COBUILD line 2)

...as simple as *filling out* a form... (COBUILD line 3)

...earring *poking out* below... (COBUILD line 9)

...virus which has *spread out* of control... (COBUILD line 15)

...eagerly *pointing* it *out* to one another... (COBUILD line 35)

...she couldn't *suss* that *out*... (CANCODE line 1)

...it's very well *laid out* as well... (CANCODE line 7)

...go to the bank first to *find out* if... (CANCODE line 11)

...it *turns out* that she's a very nice woman... (CANCODE line 30)

...I'll *get some out*... (CANCODE line 12)

**out (adjective)**

...over-written and pretty descriptions are *out*.... (COBUILD line 1)

...Norway is *out* for too-sexy Cindy Crawford... (COBUILD line 10)

**out: as part of some fixed expressions:**

...a virus which has spread *out of control*... (COBUILD line 15)

...Someday, *out of the blue*, you know... (COBUILD line 22)
While the above examples show the varied grammatical distribution of the two components, the examples below demonstrate that in comparison, the clusters *in and out* as well as *ins and outs* are less varied in their distribution. The two clusters functions mainly as an adverb and noun respectively.

**Cluster *in and out* (adverb):**

...He had been *in and out* of the England team for ten years... (SARA line 2)

...fascinating sight of trains pulling *in and out* of the platforms... (SARA line 8)

...on the wrong side of the road, weaving *in and out* of oncoming traffic... (SARA line 39)

...cascading guitar riffs trilling *in and out*... (COBUILD line 2)

...star was in fact pulsating *in and out* every four days... (COBUILD line 8)

...infantrymen darting *in and out* of foxholes... (COBUILD line 30)

...So you went straight *in and out* again... (CANCODE line 3)

...the actual process of getting *in and out* takes ages... (CANCODE line 34)

...we could hear Simon moving *in and out* of his room... (CANCODE line 35)

**Cluster *ins and outs* (noun):**

...the user must be patient when learning the *ins and outs* of an expansion card... (SARA line 1)

...she ever knew the *ins and outs* of the matter... (SARA line 15)

...Qualified instructors will teach novices the *ins and outs* of the sport... (SARA line 39)

...take too long to tell you the *ins and outs*... (COBUILD line 2)

...this class will show you all the *ins and outs* to writing formulas... (COBUILD line 29)

...as well as the *ins and outs* of other mental health... (COBUILD line 32)

...I don’t know the real *ins and outs* of what is going on... (CANCODE line 1)

...know quite a bit about the *ins and outs* of sex... (CANCODE line 3)
...I don’t know the *ins and outs* so to speak...(CANCODE line 4)

Observation from concordance lines shows that most common collocates that co-occur with the cluster *in and out* are “of”, “been” as well as many dynamic verbs (e.g. going, coming, moving, drifting, etc.) so that colligationally, the cluster would be found in the grammatical pattern: *been + dynamic verb + in and out + of*. The high frequency of this grammatical pattern found in most of the data thus explains the “fixity” of the grammatical function and distribution of the cluster *in and out*, as an adverb. Similarly, in the case of the cluster *ins and outs*, the most common collocates were found to be “the” and “of” leading to the grammatical pattern: *the + ins and outs + of*, thus explaining why the cluster *ins and outs* behaves mainly as a noun.

2.2.2 Differences in meaning usage between the two clusters and their components

Whilst the previous section clearly demonstrated that the grammatical function of each of the cluster could not be derived simply by observing the grammatical distribution of its components, consequently, the following sections will illustrate that each cluster has a linguistic identity different from that of its components, not only in grammatical distribution but in meaning usage.

2.2.3 Meaning usage of the component *in*:

From analysis, it was found that the component *in* basically expresses the meaning sense of “inclusion within”. This sense of “inclusion within” is extended to variables of time, space, circumstance, field and state/emotion. The examples below show these different meaning senses:
a) Sense 1: inclusion within time

...Canon H.L. Mansel, who gave the Bampton Lectures in 1858...(SARA line 2)

...Moreover, in the following decades, pressure on the land...(SARA line 24)

...it’s the third time in a year Johnson has escaped...(SARA line 47)

...against Paolino Uzcudun in December 1935...(COBUILD line 8)

...became strategy and finance director in September 1994...(COBUILD line 20)

...I’ll get the seconds in a minute...(CANCODE line 3)

...Was that in eighteen fifty ?...(CANCODE line 9)

...about the machines was in eighteen thirty eight...(CANCODE line 10)

(See SARA and COBUILD in Appendices 2A and 2A1 respectively)

From the above examples it is clear that in is a preposition in an adverbial phrase which has time references as seen from the high semantic preference for the names of months and cardinals.

b) Sense 2: inclusion within space

The examples given below show that once again in is a preposition in an adverbial phrase, thus expressing an inclusion within space as seen by the semantic preference of proper nouns of places, e.g. America, London, Wales and phrases showing location e.g. “the school”, “the peloton”, “the Old and New Testaments, “a tower”, etc.

...there was not enough competition in the school...(SARA line 4)

...with lots of nervousness and shoving in the peloton... (SARA line 8)

...people whose lives are described in the Old and New Testaments...(SARA line 10)

...And in a tower tersely called God knows...(COBUILD line 3)
...the movement of resistance in Afghanistan against ...(COBUILD line 5)

diamond which became an eye in his peacock throne...(COBUILD line 15)

place like that having been in London...(CANCECDE line 16)

It actually happened in America...(CANCECDE line 18)

Ain't it a potato climate made in Wales...(CANCECDE line 36)

c) Sense 3: inclusion within a circumstance

countless people who had helped to salvage the festival, and in particular, to St. Bartholomew's church...(SARA line 37)

was still in detention at the time...(COBUILD line 9)

is the cause of their trouble and in some way they are going to be punished ...(COBUILD line 22)

powerful symbolism in Mr Bush's decision to go...(COBUILD line 17)

that may account in part, for the poor showing...(COBUILD line 18)

get so irritated in certain situations...(CANCECDE line 27)

In this case, the meaning of in is used in combination with other words expressing particular conditions (e.g. particular, part, certain, Mr Bush's decision) that apply in an ordinary circumstance or event. The semantic prosody of the examples indicate exception to the norm.

d) Sense 4: expressing inclusion within a particular sphere or field

These halocarbons, such as tri-chloroethylene are used as degreasants and in dry-cleaning...(SARA line 5)

retreating from the idea of including the Khmer Rouges in government...(SARA line 15)
This meaning of inclusion within a particular sphere or field is expressed by nouns related to a certain semantic field e.g. “dry-cleaning” and “government” which are probably associated with the fields of business and politics.

e) Sense 5: expressing a particular manner

...has powerful emotional undertones, varying in kind and in intensity...(SARA line 11)

...deal with it in a sensible fashion...(COBUILD line 2)

...which can encode in a succinct and inspiring way...(COBUILD line 4)

...the host nation has been in ecstasy since beating Australia...(COBUILD line 10)

The above adverbial phrases express the manner in which something is done or happens, thus conveying a prosody of involvement.

f) Sense 6: Fashionable (Informal Use)

This meaning sense is conveyed usually through the use of proper nouns - namely those of popular places and people – and the use of attributive adjectives. Furthermore, the use of the present tense all contribute in conveying a positive semantic prosody of fashion and style at the present moment. The examples below illustrate this particular sense:

...Animal prints are in. Get it on. (COBUILD...line 1)

...Denim Blue Jeans are in for the second consecutive year world wide...(COBUILD...line 13)

Colligationally, this meaning can be written syntactically as:

Object/Person + be (present) + in (intransitive)
2.2.4 Meaning usage of the component $out$:

Analysis of the data shows that the meanings of the component $out$, unlike the other component $in$, do not express one basic meaning but had many different meaning senses - thirteen in all. Furthermore, what was interesting to note, was that $out$ also forms an integral part of many fixed expressions just like $in$.

a) Sense 1: movement to the exterior:

The sentences below show that for this meaning of $out$ - movement to the exterior, $out$ is mainly used in combination with many dynamic verbs (go, come, take, haul, etc.) to form prepositional phrases and phrasal verbs e.g. burst out, work out, wipe out, draw out, etc.

...I thought you would go $out$ tonight...(SARA line 49)

...Each injured child was taken $out$, accompanied by a teacher...(COBUILD line 5)

...turquoise earrings poking $out$ below jauntily cocked fur hats...(COBUILD line 9)

...the attacker hauled the three-year-old $out$ of a buggy...(COBUILD line 19)

...100 mini drivers were setting $out$ on a charity run...(COBUILD line 28)

..when you look $out$ all you see is sort of wire netting...(CANCODE line 2)

...Get $out$ and about you know...(CANCODE line 3)

...And the bloke would take us $out$ in the middle of the night...(CANCODE line 21)

...The buds haven’t come $out$ on the trees...(CANCODE line 23)

(See SARA, COBUILD and CANCODE in Appendices 2B, 2B1 and 2B2 respectively for other examples)

From the examples above, it is also clear that the semantic preference for the dynamic verbs of motion in the sentences create a prosody of activity which indicates the presence of an agent moving or causing a movement towards the exterior. This
prosody of activity can be conveyed colligationally from the grammatical formula:

dynamic verb + out

Sense 1a: exclusion/dismissal

...Four round shadows had blocked out all the light from the window... (SARA line 39)

...I pushed it right out... (SARA line 50)

...his bulletin was faded out after he slurred his words... (COBUILD line 6)

...and throw out all this pilot talk... (COBUILD line 7)

...lead all the way and put out Hayles by only marginally more... (COBUILD line 12)

...the one who walked out on me after two and a half years... (COBUILD line 26)

This meaning sense of exclusion or dismissal is a figurative extension of sense 1- movement to the exterior. There is still the same semantic preference for verbs of activity ("blocked", "pushed", "throw", "put" and "walked") as in the first meaning. Furthermore, the prepositional phrase or phrasal verb containing out can be used in both the transitive and intransitive construction, without loss to the meaning. Colligationally though, the meaning sense of exclusion or dismissal does not differ from the first sense "movement to the exterior" as the meaning is conveyed through a similar syntactic construction:

dynamic verb + out (metaphorical)

I have subcategorised this the meaning sense of "exclusion" or "dismissal" as a subcategory of Sense 1 (movement to the exterior) because the former meaning is used in a metaphorical sense as the literal meaning of movement to the exterior becomes extended to mean dismissal or exclusion. The extension of literal meanings to metaphorical ones will be discussed in greater detail in Section 3.8.
b) Sense 2: investigate and examine

For this meaning of *out* - discover and examine - the prosody of suspicion is conveyed only if *out* is used in combination with phrasal or prepositional verbs e.g. “find out”, “suss out”, “root out”, “worked out”, etc. However, the verbs used such as “find” and “suss” must be those revealing the agent in the process of discovery, detection or serious examination because of suspicion or curiosity. The difference between the first sense of *out* - movement to the exterior - and this second sense - discovery - is that there is no co-occurrence of a preposition following *out*. The colligational pattern - *find/root/suss/work* + *out* + *object noun/complement* - will illustrate this observation:

...despatched to try to root *out* any facts that might justify a further paragraph... (SARA line 31)

...a useful way for beginners to *find out* just how much they know... (SARA line 33)

...Find *out* about social events... (COBUILD line 4)

...sorting *out* payments and receiving data... (COBUILD line 30)

...more than any have thought *out* problems... (COBUILD line 31)

...she couldn’t suss that *out*... (CANCODE line 1)

...go to the bank to find *out* if the English authorities have... (CANCODE line 11)

...I’ve worked it *out*. It’s so little... (CANCODE line 14)

...I turned *out* having to pay... (CANCODE line 15)

...But it turns *out* that she’s a very nice woman... (CANCODE line 30)

c) Sense 3: not in use

...unfashionable may have *passed out* of public life... (COBUILD line 17)
...that's all dying out isn't it deck chairs...(CANCODE line 17)

...But it's really out...(CANCODE line 26)

...it's sort of fading out. People aren't using them...(CANCODE line 28)

The meaning sense of out - "not in use" - is easy to determine by observing that the dynamic verbs ("fading", "passed" and "dying") all connote the prosody of gradual disappearance. The interesting thing to note is that for this meaning sense, it is possible to observe that out can also occur at the end position of a sentence. The colligational pattern for this meaning would be: pronoun/noun + be + out

d) Sense 4: attribute or part of

...will cause grit to fall out of the pile...(SARA line 24)

...Britain is fourteenth out of fifteen...(SARA line 37)

...a computational lexicon out of it...(CANCODE line 20)

...a little pot of something out of it...(CANCODE line 21)

...Doing quite well out of this weekend...(CANCODE line 22)

The meaning expressed here - attribute or part of a collection/organisation - is revealed by the strong collocational presence of the preposition "of". Colligationally, this meaning would have the grammatical formula:

noun/adverb(part/attribute) + out of + noun/pronoun(whole)

On analysis it was also interesting to find that the strong collocational presence of "of" with "out" as in "out of" produced many other meaning senses in English besides "attribute or part of". Some fixed expressions which were observed to convey other meanings (most of which are metaphorical) using "out of" as constituent elements are "out of control", "out of touch", "out of the question", "out of the blue", "out of hand", "out of order", "out of sight", "out of work", etc. Since there are too
many fixed expressions of the type shown above, it is not possible to work out the
meaning senses of all of them. However, I will illustrate one particular meaning sense
of “out of” as an example which is found in e).

e) Sense 5: motivation

…The hare, either out of forgetfulness or malice, distorted the message…(SARA line 9)

…In the Academica he attacks the simulation of virtue which is assumed not out of
duty but in pursuit of pleasure…(SARA line 19)

…He read the letter not out of curiosity but to spare St. Ives further
embarrassment…(SARA line 26)

…the job is done not out of interest but as a way of earning money…(SARA line 29)

…She knelt longer… not out of devotion but to give him time to get away…(SARA
line 32)

…Thatcher does not attend merely out of family duty…(COBUILD line 21)

…remarked Henry, more out of obligation to the absence of authority… (COBUILD
line 23)

…she persists that she is saying so out of duty…(COBUILD line 24)

The examples above illustrate that “out of” has a semantic preference for
nouns such as “duty”, “obligation”, “curiosity”, “devotion”, “forgetfulness”, “interest”
which all seem to convey the prosody of intrinsic motivation. Colligationally, the
meaning sense of “motivation” can be written as:

out of + noun (showing motivation)
f) Sense 6: distribution

...This does not necessarily mean paying out a lot of money for several...(SARA line 10)

...Send out more horses, slurr the country round...(SARA line 15)

...Both of those are being sent out with this issues of Supporter News...(SARA line 21)

...dealing with a virus which has spread out of control...(COBUILD line 15)

...and handing them out to relatives...(COBUILD line 36)

As seen in the above sentences, it is clear that out shows a semantic preference for the verbs “send”, “hand” “spread” to form phrasal verbs. The prosody of distribution is hence conveyed through the presence of these phrasal verbs. Colligationally, this meaning can be expressed syntactically as: \textit{hand/send/spread} + out _

g) Sense 7: No longer fashionable

This meaning sense is conveyed through the semantic preference for adverbial emphasisers like “far too-sexy” or from the past tense, all of which seem to give a negative semantic prosody of an event or object of unfashionableness at present. The examples below illustrate this meaning:

...over-written and pretty descriptions are out....(COBUILD line 1)

...long skirts went out last year.... (COBUILD line 2)

...Norway is out for far too-sexy Cindy Crawford....(COBUILD line 10)

Colligationally, this meaning can be written syntactically as:

\textit{Noun (Person/Object) + be (present/past) + out (intransitive)}.

h) Other meaning usages:

Apart from the basic meanings out “out” seen above, there are also other meanings for “out” found from personal observation of their informal usage in newspapers, magazines and conversations. The meanings of “out” - “extinguished”,
“not functioning”, “not in power”, and “defeated” – are illustrated in the examples below:

...the fire’s gone out...

...the elevator’s out again...

...The Republicans are out...

...He was knocked out in the second round...

There are also a multitude of other meanings for “out” in phrasal verbs (see Hunston et al, 1997 for a detailed list). Some of the meanings of these phrasal verbs “to date or court someone” (going out), “destroy” (wipe out), “miss out” (lose out), “unrestrained” (out of control), “not in power” (voted out), “went out like a light” (fell asleep), “knocked out” (defeated), “extinguish” (put out)) are found in the corpora and are given below:

...Don’t hold your breath, Miguel, because I’m not going out with you... (SARA line 42)

...the cuts will wipe out what they have to live on... (SARA line 44)

...yeah, I missed out on that... (CANCODE line 25)

Since the focus of the research is not on phrasal verbs, I have not carried out a generalisation of the semantic preferences and prosodies for each meaning.

2.2.5. Meaning usage of the cluster in and out and ins and outs

This section will show that the cluster in and out and its extension ins and outs have one meaning each, neither of which is similar in usage to that of the components in or out. This difference in idiomatic usage further strengthens the case that the cluster should have its own linguistic identity, different from that of its components. Before listing the meaning senses of the cluster, it should be noted that in all cases, in
*and out* behaves grammatically as an adverb while *ins and outs* behaves only as a noun (see section 2.2.1)

a) Meaning usage for cluster *in and out*: repeated action

This first meaning of *in and out* at most can be considered an extension of the components *in* and *out*, roughly derived from their basic meanings - “inside” and “outside”. However the similarity in meaning ends there because the sentences below will demonstrate that this grammatical cluster is used in a more figurative sense, foregrounding the repetitiveness of the act and thus removing the focus from the location “inside and outside”:

...he had been *in and out* of the England team for ten years... (SARA line 2)

...officials walked *in and out* regularly to give advice... (SARA line 6)

...the next year Sally fell *in and out* of love a half dozen times... (SARA line 11)

...the children tumbled *in and out* to raid the fridge... (SARA line 12)

...Other committee members were *in and out* of the new Law Centre, holding meetings... (SARA line 13)

...the siren whooping, weaving *in and out* of the tankers... (SARA line 28)

...I wove four of Joyce's characters into one... scene, ducking *in and out* of each character... (SARA line 35)

...Chambers breathed *in and out*... (SARA line 40)

...Morrison... fought... moving in and out of range to throw punches... (SARA line 45)

...cascading guitar riffs trilling *in and out*... (COBUILD line 2)

...in fact pulsating *in and out* every four days... (COBUILD line 8)

...no hocus pocus. *In and out*. Four or five sessions at most... (COBUILD line 9)

...as it dived *in and out* of a weedbed... (COBUILD line 19)
...they were *in and out* of museums...(COBUILD line 22)

...the flow of your money *in and out* of the country...(COBUILD line 33)

...Breathe *in and out* slowly...(COBUILD line 39)

...so you went straight *in and out* again...(CANCODE line 3)

...since I’ve been *in and out* like a yo-yo...(CANCODE line 15)

...she was *in and out* of hospital...(CANCODE line 19)

...do a fist *in and out* like that...(CANCODE line 23)

...she’d been *in and out* to answer the phone...(CANCODE line 26)

...whose unemployed and is *in and out* of prison...(CANCODE line 36)

...can’t remember my *in and out* time going *in and out* of er surgery...(CANCODE line 37)

...when you’re whizzing *in and out* of cars at the same...(CANCODE line 40)

(See Appendices 2C, 2C1 and 2C2 for other examples)

It is clear from the above examples that the cluster *in and out* has a high semantic preference for dynamic verbs of motion such as "walked", "ducking", "slipping", "trooping", "breathe", "weaving", etc., personal pronouns and auxiliary verbs, all of which contribute to an overall prosody of personal involvement and engagement of the agent in a repeated action. Furthermore, the COBUILD collocational frequencies using t-score calculations lists the preposition "of" very highly (15.269), very highly followed by the verb "been" (4.43) and many dynamic verbs including those mentioned above, indicating a possible and likely colligational structure for this meaning sense:

\[(been) + \text{dynamic verb/auxiliary verb} + \text{in and out} + (of)\] or

It is interesting to note also that the meaning sense would not change if the optional element "of" was omitted from the formula above and replaced with a full-stop
b) Meaning usage for cluster ins and outs: intricacies, complexities and details

The sentences below demonstrate the idiomatic usage of *ins and outs* - "intricacies, complexities and details" - which is different from that of the components:

...patient when learning the *ins and outs* of an expansion card...(SARA line 1)

...I don’t think she ever knew the *ins and outs* of the matter...(SARA line 15)

...*Ins and outs* of the White House...(SARA line 18)

...All the *ins and outs* are logged in a large collection of files...(SARA lines 24)

...explaining to the USL ‘s Japanese shareholders the *ins and outs* of the deal...(SARA line 26)

...Gordimer knows the *ins and outs* of South Africa...(SARA line 35)

...she’s asked you but then again I don’t know the *ins and outs* of the practice...(SARA line 50)

...great deal on Grace about the *ins and outs* of the charter business...(COBUILD line 4)

...Anna Blundy on the *ins and outs* of contemporary living...(COBUILD line 11)

...romance and the *ins and outs* of partnership...(COBUILD line 19)

...when it comes to the *ins and outs* of piecing together...(COBUILD line 25)

...show you all the *ins and outs* of using video...(COBUILD line 30)

...as well as the *ins and outs* of other mental health...(COBUILD line 32)

...I don’t know the real *ins and outs* what is going on...(CANCODE line 1)

...he does know quite a bit about the *ins and outs* of mm yeah mm sex. (CANCODE line 3)

...I don’t know the *ins and outs* so to speak...(CANCODE line 4)

(See Appendices 3A, 3A1 and 3A2 for other examples)
It is clear from the above examples and the COBUILD collocational frequency list that there is a high co-occurrence of the definite article "the" before the cluster and the preposition "of" following it. There is also a semantic preference for dynamic verbs which are related to knowledge and ability e.g. "know", "explain", "show", "learning", etc. of a particular system, event, performance - "mental health", "partnership", "video", "charter business", etc. as seen by the proliferation these object nouns. These semantic preferences contribute to an overall prosody of knowledge on the part of the agent. Taking into consideration the semantic preferences, collocations and prosody of the cluster, its meaning sense - "intricacies, complexities and details" can be written in the colligational structure:

\[
\text{verb of cognition + the + ins and outs + of + noun (system/performance/event)}
\]

2.2.6 A comment about the clusters - \textit{in and out} and \textit{ins and outs}

Whilst analysis in the previous sections focused on showing that both clusters had their own linguistic identity which was different from that of the components "in" and "out", it can be observed that the addition of the plurality marker "s" to \textit{in and out} might lead us to believe that the cluster \textit{ins and outs} itself could derive from \textit{in and out}. However, the previous analysis can help dispel this belief. Firstly, the grammatical function of \textit{in and out} mainly as an adverb is different from \textit{ins and outs} which functions solely as a noun. Furthermore, the idiomatic usage of both are different as shown in section 2.2.5 (repeated action for \textit{in and out}, intricacies, complexities and details for \textit{ins and outs}), each quite distinct from the other.
2.2.7. Summary of differences between *in and out*, *ins and outs* and their components

The following table shows at a glance the difference between the cluster and its components in terms of grammatical functions and usage. From the table, it is clear that there is little or no correspondence between both clusters (*in and out* and *ins and outs*) and their components in terms of grammatical distribution and idiomatic meaning. This demonstrates Sinclair’s observation of the unit of meaning as “a single, independent meaningful choice of words showing independent variation” which “can be associated with a distinct formal patterning” (See Sinclair 1991:6 and 1997: lecture). From this statement, it is valid to claim thus that the cluster *in and out* as well as *ins and outs* qualify as a single lexical unit, with its own lexical identity, different from that of its components.

<table>
<thead>
<tr>
<th>grammatical function</th>
<th>component “in”</th>
<th>component “out”</th>
<th>cluster 1 “in and out”</th>
<th>cluster 2 “ins and outs”</th>
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</thead>
<tbody>
<tr>
<td>Adverb</td>
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<td>✓</td>
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<td>Preposition</td>
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<td>as part of many fixed expressions</td>
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<td>intricacies, complexities and details</td>
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<td>inclusion within time</td>
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<td>inclusion within space</td>
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<td>inclusion within a circumstance</td>
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<td>inclusion within a particular sphere or field</td>
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<td>expressing a particular state or emotion</td>
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<td>Fashionable</td>
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<td>not in fashion</td>
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<td>discover and examine</td>
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<td>not in use</td>
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<td>attribute or part of a collection/ organisation</td>
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<td>Distribution</td>
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2.2.8 Paradigmatic and Syntagmatic Differences between *in and out*, *ins and outs* and their components

Whilst the table above shows at a glance how the cluster and its components differ from one another in grammatical distribution and idiomatic meaning, this next section will show how these two factors interact with one another, ultimately determining the range and restrictions in meaning for the cluster and its components. Both would prospect for their own entries from a pool of potential lexical words; content or functional as a result of the interaction between grammar and lexis. The diagrams below explain this process fully by demonstrating how each associated meaning (cluster or component) on the syntagmatic axis (grammatical combination of words) would prospect different lexical choices from the paradigmatic axis, whilst grammatically also opening up certain classes of words.

A) Cluster 1: *in and out*

repeated action

dynamic verb/ be

+ *in and out*

e.g.s. walked *in and out* regularly
been in *and out* of the team

B) Cluster 2: *ins and outs*

intricacies, complexities and details

verb of cognition

noun

(system/performance/event)

+ the + *ins and outs* + of +

e.g. know the *ins and outs* of South Africa

C) Component 1: *in*

1) inclusion within time

noun (months/cardinals)

*in + (the/a) +*

e.g.s. *in* 1990...

*in a minute*

2) inclusion within space

noun (name of place)

*in + (the/a) +*

e.g. *in* the school

*in Afghanistan*
3) inclusion within circumstance

adj./adv.
(part/many/certain/particular)

4) inclusion within a particular sphere of field

n. [business/politics]

in +

in +
e.g.s. and in particular, St. Bartholomew's church
may account in part, for the poor showing
e.g. in dry-cleaning
in government

5) expressing a particular manner

adv. (feeling/attribute)
in + (a/an/the) +
e.g. in a sensible fashion
in ecstasy
e.g. Animal prints are in.

6) fashionable

obj./pl./per.
+ be + in (intransitive)
e.g. walked out on me after two years

D) Component 2: out

1) movement to the exterior

dyn. verb

+ out
e.g. hauled out the buggy
set out on a charity run

e.g. threw out this talk
walked out on me after two years

2) investigate and examine

dyn. verbs
(find/carry/suss/work) n./complement

3) not in use

pr. n. (faded/dying/passed)
+ verb(be) +

4) not in use

n. (inert)
+ out

e.g. root out any facts

e.g. he may have passed out of public life
5) attribute or part of a collection

6) distribution

dynamic verb
(send/hand/spread/pay)

7) motivate

8) Extended meanings of “out”

It is clear that the lexical choices governing each meaning of the cluster(s) and the components are different in the diagrams. The types of word classes that the lexical choices prospect by virtue of their lexis are also different in each case. By observing thus the interrelation of lexis and grammar, it is evident that the cluster should be considered as an individual unit of meaning, with a linguistic identity different from its components.
2.3 Conclusion

It can be concluded from the analysis of the three prepositional clusters *round about, in and out, ins and outs* that they can be called *linguistic units of meaning*, with their own particular linguistic identity shaped by virtue of their grammatical function and meaning usage with other words. The illustration of evidence and discussion of the findings in favour of this observation hence validate the sub-hypothesis presented at the beginning of this chapter. The next chapter will continue the investigation into further lexico-grammatical properties of prepositional clusters with reference to syntactic patterning and semantic relationships between components.
3.0 Introduction and sub-hypothesis 2

This chapter will detail the third stage of my research, where I proceed to investigate further the lexico-grammatical properties of prepositional clusters. The analysis and focus of the findings will regard the syntactic patterning and semantic relationships between components of a prepositional cluster. In order to give the investigation some structure and guidance at this stage, I have postulated three related sub-hypotheses, which are given below:

Stage 3:

Sub-hypothesis 2a: There exist focusing constituent(s) in the syntactic patterning responsible for signalling the formation of a cluster in prepositional patterns composed of one and two prepositional constituents. Thus, there exists a constituent element(s) which form(s) strong collocates with other words, so as to be instrumental in creating a cluster.

Sub-hypothesis 2b: There exists a criterion for selection of prospective constituent choices in the formation of a prepositional cluster. This criterion is based on two conditions - a conceptual metaphorical relationship and a common abstract lexical domain.
While the analysis in Chapter 2 focused on prepositional clusters consisting of a compound and a binomial, each having two prepositional composites - Prep + Prep, Prep + and + Prep - in this chapter, I intend to expand the scope of the investigation to also include prepositional clusters that have one prepositional constituent. The justification behind choosing clusters with one prepositional constituent will be given in Section 3.4. The prepositional clusters containing only one prepositional constituent that I have chosen, would come from the following syntactic formulae: Adj/Adv + Prep (e.g.s. better/worse/badly/better/well + off), Prep + Adj/Adv (e.g.s. at + least/most/all/last), Noun + Prep (e.g.s. reason/cause/excuse + for) and Prep + Noun (e.g.s. by + coincidence/accident/mistake/chance). I have not included any verb + particle combinations, because they have been covered quite extensively in Collins Cobuild Grammar Pattern 1: Verbs (1996).

3.1 The Investigative approaches

To give the investigation more depth, I will be applying a cognitive semantic approach to complement the collocationist one that I have used so far. This is due to the fact that whilst its primary aim is to show evidence of attested usage and collocational behaviour, corpus linguistic principles do not deal with the process of interpreting metaphorical usage adequately, especially in the case of prepositional clusters. As discussed in sections 1.3, 1.4 and 1.6, most prepositions are deictic in nature with many possessing strong spatial concepts like in, out, up, down, etc, which have well-known extended meanings such as “inclusion within”, “exclusion”, “high social status”, “misery”, respectively, all based on well-known metaphorical concepts associated with individual spatial meanings. The strong link between spatial and
metaphorical association that exists in prepositions makes it advantageous as an approach which can be applied to the disambiguation of meaning in prepositional clusters. This approach will thus apply a modular analysis.

For this study, I also felt that the principles behind cognitive semantics were more suited for investigating the metaphorical relationship between the prepositional constituents of the cluster, because of personal conviction that cognitive principles realistically mirror the human mental processing system which associates lexical items with familiar concepts about the world. These concepts are shaped by our interactions, experiences and perceptions. Traditional lexical studies have tended to focus on categorising concrete categories of lexical items, some of the most influential being those conducted by Rosch (1973, 1975, 1978). Consequently, modern studies have built on them and have attempted to show the relationship between language and perception (see Lakoff, 1987; Lakoff and Johnson, 1980; Johnson, 1987; Sadock, 1993; Rumelhart, 1993; Reddy, 1993; etc). In this particular study also, I would like to apply the same principles used in the above studies, to show how the mental processing ability of a language user is relied on, to interpret meanings of fixed expressions (semantic, syntactic, phonological, etc), particularly those of prepositional clusters, by virtue of the language user's interaction with the world.

In order to apply the cognitive semantic approach that I have suggested, I will once again, use corpus data to verify my claims. The data will be taken from the BNC, COBUILD and CANCODE corpora. However, before I begin the actual analysis, I would like to give a review of some work that explicate the principles of cognitive semantics as well as others which have made use of these principles in the investigation of metaphoricity and prepositions.
3.2. Approaches to cognitive semantics: Language and the Mind

One of the most influential studies on the inter relationship between language and the mind was conducted by Lakoff and Johnson in 1980. Both linguists contended that lying behind a speaker's metaphoric utterance, is the mental construct of the speaker which in itself is metaphoric. Thus metaphorical concepts like that given in the example Argument is War result in the formation of our world view. Lakoff and Johnson emphasised this claim when they explained that:

"The concepts that govern our thought are not just matters of the intellect. They also govern our everyday functioning, down to the most mundane details. Our concepts structure what we perceive, how we get around in the world, and how we relate to other people. Our conceptual system thus plays a central role in defining our everyday realities. If we are right in suggesting that our conceptual system is largely metaphorical, then the way we think, what we experience, and what we do everyday is very much a matter of metaphor..." (Lakoff and Johnson, 1980: 3)

The above assertion by Lakoff and Johnson about how our world view is formed as a result of conceptual metaphors which we have internalised is different from the Sapir-Whorf hypothesis hypothesis (see Sapir, 1921 and Whorf, 1956), in the sense that the latter claims that the grammatical categories that define a language are responsible for shaping our world view. Metaphorical concepts have nothing to do with it. On the other hand, Lakoff and Johnson elaborated that metaphorical orientations are not arbitrary but universal, in that they are found in our physical and cultural experiences. Thus they suggested how the up-down spatialisation metaphor
could have resulted from our physical and cultural experiences, by giving a brief
description of each metaphorical concept (see Lakoff and Johnson, 1980: 15).

In 1987, Lakoff set himself the goal of explicating human categorisation and
consequently came up with his own model of radial categorisation. He said that a
radial structuring of categories involved the following (See Lakoff, 1987: 204)
a) A conventional choice of centre
b) Extension principles. These characterise the class of possible links between more
central and less central subcategories. They include metaphoric models,
metonymic models and image-schema relationships, etc.
c) Specific conventional extensions. Though each extension is an instance of the
extension principles, the extensions are not predictable from the centre plus the
principles. Each extension is a matter of convention and must be learned. The fact
that specific extensions are instances of general principles makes them easier to learn.

Lakoff admitted that his radial structuring model was meant to be an attack
against objectivist semantics such as collocationist perspectives, and set out to argue
for an experientalist view in which there is a basis of conceptual categorisation, rather
than an approach which asserts that “there is an objectively true rationality to the
universe that transcends all beings and all experiences”. Lakoff claimed that the
objectivist view would be inadequate to understand the real word and that the
relationship between conceptual categories and real-word categories is not as
objective and rational as the objectivists claim. This is because when we hypothesise a
relationship between conceptual categories and categories of the world, we are dealing
also with human conceptual categories that have properties as a result of “imaginative
processes” - metaphor, metonymy, mental imagery. These imaginative processes do not reflect nature at all.

In 1987, Johnson expanded further on the principle of conceptual categorisation and proceeded to explore the meaning of schema and the various aspects of it. He defined schema as “general knowledge structures, ranging from conceptual networks to scripted activities, to narrative structures and even to theoretical frameworks”. However, Johnson distinguished his use of the term which focuses on “embodied patterns of meaningfully organised experience (such as structures of bodily movements and perceptual interactions), from those that put stress on propositional structures. Thus, an example of a schema is an image schema which is part of a language user’s cognitive processing ability. With this ability, we are able to manipulate basic image schema into abstract structures using one or more of the following series of transformations:

1) Path-point to end-point-focus: Follow, in imagination, the path of a moving object, and focus on the point where it comes to rest, or will come to rest.

2) Multiplex to mass: Imagine a group of several objects. Move away (in your mind) from the group until the cluster of individuals starts to become a single homogenous mass. Now move back down to the point where the mass turns once again into a cluster.

3) Following a trajectory: As we perceive a continuously moving object, we can mentally trace the path it has traversed or the trajectory is about to traverse.

4) Superimposition: Imagine a large sphere and a small cube. Increase the size of the cube until the sphere can fit inside it. Now reduce the size of the cube and put it within the sphere.
Johnson also claimed that because image schemas could be found at the level of generality as well as abstraction, this property enabled them to function as repeated identifying patterns that we encountered in our experiences, perceptions and events in our lives. These identifying patterns could also be used to explain how metaphors also have a "distinct cognitive force" due to the image-schematic dimension of metaphors in general. Johnson quoted Searle (1979) who is in support of the image-schema dimensions that metaphors have. Searle asserts that:

"It just seems to be a fact about our mental capacities that we are able to interpret certain sorts of metaphor without application of any underlying "rules" or "principles" other than the sheer ability to make certain associations. I don't know any better way to describe these abilities than to say that they are non-representational mental capacities." (Searle 1979; 79)

From Searle's statement, we can now understand how metaphors are by nature creative because of the associations made to experiences. All these associations contribute to shaping our understanding not only of the meaning of the metaphor, but also, of the world.

Johnson's theory about image-schemas as a reflection of the mental processing abilities could explain the close inter relation between basic and extended meanings of words. Using image schema principles, a language user can transform the basic image of a moving trajectory and associate the image with familiar concepts and experiences about the world.

While Lakoff (1987), Lakoff and Johnson (1980) and Johnson (1987)'s studies emphasised the link between language and perception thus accounting for the
phenomenon of figurative usage, this theory was a subject of much debate in the last ten years as there were linguists who oppose Lakoff and Johnson’s studies. One of them was Sadock (1993) who claimed that figurative usage was not a result of language universals found in grammar (see Chomsky, 1965) and phonology (see Chomsky and Halle, 1968), nor was it a result of non-linguistic forces such as those related to psychology and culture. Sadock contended that:

“...metaphor and other varieties of nonliteral figures of speech are the locus of semantic change in natural language... the communicative value of an expression that began life as a metaphor or as some other trope is partially conventional and partially not...” (Sadock 1993; 57)

Sadock's stance on metaphorical language being a result of "linguistic figuration" underlined a structuralist-semantic perspective where an expression is considered figurative according to whether it reflects conventions of usage or conventions of language. The four categories Sadock suggested in his work were taken from Morgan (1978) who divides figurative language into a) the totally unconventional, i.e. whatever linguistic means, b) conventional methods but no conventional means, e.g. irony, c) conventional methods and conventional means, e.g. proverbs and d) no conventional methods but conventional means, e.g. true idioms.

Sadock’s opposition against psychological factors, in favour of linguistic figuration which he said is responsible for the formation of figurative language, seems to me rather questionable for the simple reason that he has overlooked many psychological studies about how the mind has internalised many universal metaphorical concepts which are responsible for shaping its world view. Rosch (1973,
1975, 1978), among many other psychologists have shown that the language instinct is inextricably tied to the human mind.

While there were linguists like Sadock who opposed the principle of the relationship between language and perception, there were however other like Rumelhart (1993) and Reddy (1993) who argued strongly for the above principle by demonstrating how the principle was responsible for observable psychological processes like language production and comprehension.

In 1993, Rumelhart asserted in an article that for a young child to comprehend a metaphorical utterance, he or she had to attempt to fit features of the situation at hand with the nearest lexical concept that is familiar. In this way, the transference of the semantic properties related to that lexical concept contributed to his or her understanding of the situation. According to Rumelhart, this process of fitting and transference involved the extensions of concepts from one domain to another. He explained further that:

"if a child has difficulty understanding metaphorical language (as judged by an adult), this is presumably due to the child's difficulty in making connection between his or her conception of the situation underlying the lexical items used and the situation at hand..." (Rumelhart 1993; 73)

In light of his claim, Rumelhart's theory could be used to explain the process of metaphorical comprehension in the language learner where the process of understanding and interpreting is dependent on the selection and verification of conceptual "schemata" and its "linguistic components". He explains in his model of a "top-down" approach that language comprehension is a result of internal hypotheses.
which are constantly imposed upon the observed utterances in the process of constructing meaning. This is different from the “bottom-up” approach in which meaning is constructed from smaller component meanings.

Like Rumelhart, Reddy (1993) supported the link between psychological processing, language production and comprehension. In his article, Reddy argued that human miscommunication was a result of a person not knowing how to transfer his thoughts perfectly via language. Conversely, a good speaker knew how to do this. Reddy suggested that metaphorical expressions allowed us to communicate more effectively, because concepts underlying metaphorical expressions allowed us to focus on one aspect of the concept, while hiding other aspects of the concept that were inconsistent with that metaphor. Naturally, the highlighting and hiding of these concepts were dependent on phrases, sentences, paragraphs used in the communication, which act as logical containers or conveyors of thought. The logical framework that Reddy used to observe language was that of a conduit metaphor. According to this metaphor, language is structured in the following way:

a) IDEAS (OR MEANINGS) ARE OBJECTS - This entails that meanings exist by themselves, irrespective of any context or speaker

b) LINGUISTIC EXPRESSIONS ARE CONTAINERS - This entails that words and sentences have meanings, again independent of contexts and speakers.

c) COMMUNICATION IS SENDING - This entails using any form of communication e.g. written or spoken to send the words and sentences across to the listeners.

By using Reddy’s framework, the assumption would be that “the meaning is right there in the words” and the “listener’s task must be one of extraction” in which
he has to decode the meaning in the words and take it out of them so that it gets into his head. The English language is full of expressions that compel this process in order for communication to take place. A summary of Reddy’s framework can be seen in his categorisation of core expressions in English which reflect the conduit metaphor principles (see Reddy, 1993: 170):

1) language functions like a conduit, transferring thoughts bodily from one person to another

2) in writing and speaking, people insert their thoughts or feelings in the words

3) words accomplish the transfer by containing the thoughts or feelings and conveying them to others

4) in listening or reading, people extract the thoughts and feelings once again from the words.

While Reddy’s conduit metaphor framework is detailed in its attempts to combine the interaction of the human mind and language in language production and comprehension, there is a limitation to it. If metaphorical expressions are constructed such that they focus on one aspect of the concept and hide other aspects, all ideas or thoughts are “there in the library”, however the assertion that anyone can go in and “get them” seems to imply that the ideas or thoughts have been neatly catalogued with a disregard for context-bound situations. We cannot say that for all metaphorical expressions, the meaning is “right there in the words” according to the conduit metaphor because even simple metaphorical expressions such as “I’m in the red” cannot be interpreted properly unless there is a context in which the listener is able to fit the concept underlying “in the red” with the situation at hand. Similarly, sentences like “We need new alternative sources of energy” taken from Lakoff’s (1980) book
can mean different things to different people. In this case, the sentence would mean
different things to the president of an oil company and to the president of a nature
conservation group.

While this section has discussed at great length the underlying principles
behind cognitive semantics, it is appropriate that the discussion now focuses on how
these principles have been applied to some studies of prepositions. It should be noted
that the studies that follow reject the objectivist view of rationality such as
collocationist investigations and argue for a more experientalist analyst for
prepositional usage. In Section 1.5 and in Section 3.2, I have also argued for a similar
approach to the interpretation of metaphorical meaning with regard to prepositional
cluster usage reiterating that prepositions being deictic in nature and possessing strong
spatial concepts which give rise to well known metaphorical concepts. However, I
have also defended the value of collocationist investigations in disambiguating
meaning in the case of prepositions with weak spatial concepts such as by, about,
beyond where prepositional usage would rely greatly on analysis of the context and
lexical environment surrounding this word. Furthermore, it is only through corpus
evidence that proof of attested usage can be demonstrated to support claims from
cognitive semantics about the inter relationship between language and perception.

3.2.1 Cognitive approaches to single prepositions

One influential work conducted in the analysis of prepositions using cognitive
principles was by Dirven (1993). Dirven’s approach was based on Persson’s (1990)
framework of representing metaphor psychologically. Dirven however chose to apply
his model of metaphorical representation by analysing how English prepositions
“divide(d) up physical space” so as to be projected onto “mental space”. In other words, prepositions could form chains of meaning which covered various conceptual domains such as time, state, area, manner or means, circumstance, cause or reason, etc. Consequently similar or differing mental concepts embodied by various prepositions were used as a way of grouping apparently different prepositions according to a cline of relatedness. Dirven also attempted to address the issue of whether different prepositions would give similar or contrasting concepts in mental space e.g. if the various concepts of cause or reason are denoted by various prepositions. Twelve prepositions were chosen at random to test this hypothesis and radial networks of the extensions of each preposition were then drawn to illustrate the difference or similarity in concepts. Two conclusions (See Dirven, 1993: 85) drawn from Dirven’s analysis showed that:

1) a preposition that denotes a vaguer or more general location is more apt to develop metaphorical extensions and

2) a preposition that denotes a more concrete location or a specialised visual location or which has a negative polarity meaning (i.e. a static position at the negative and of a vertical dimension - e.g. “under”) is less apt to develop metaphorical extensions.

One conclusion in the study that is questionable is his claim that prepositions which denote a more concrete location or a specialised visual location, or which have a negative polarity meaning (i.e. a static position at the negative and of a vertical dimension - e.g. “under”), are less apt to develop metaphorical extensions. There are some expressions such as “water under the bridge” and “under way” which are metaphorical in usage to mean “not mentioned or talked about” and “in progress”
respectively. Contrary to Dirven's principle, the degree of metaphoricity actually increases depending on the extent of concreteness, visuality and negative polarity of the preposition. This is because, a transformation from the basic meaning to an extended meaning which is usually metaphorical takes place more easily as a result of the strong deictic trajectory of the preposition transforming itself from an image to a well-defined abstract mental concept (e.g. UP MEANS GOOD, DOWN MEANS BAD)

Whilst Dirven's (1993) study focused on trying to categorise prepositions according to a cline of relatedness, using cognitive principles, Boers' 1996 concentrates on applying these principles study concentrates only on prepositions related to the up-down and front-back dimensions. In his study, Boers tries to relate how prepositions from these two dimensions have peripheral spatial senses relate to central ones and how figurative senses relate to spatial ones. He looks at prepositions from a radial category or network built around central or prototypical senses. Analyses from this study show that there are eight prepositions (under, underneath, beneath, below, down, above, over and up) associated with the UP-DOWN dimension and five prepositions (behind, beyond, after, before, in front of) associated with the FRONT-BACK dimension. Furthermore, findings have shown that although peripheries of categories related to the UP-DOWN and FRONT-BACK dimensions may overlap, the different senses of a preposition can always be traced back to one central schema.

3.3. Applications of cognitive principles to pedagogy

Cognitive principles can be beneficial not only to the interpretation of metaphorical meaning in idiomatic expressions, but allows scope for enlarging the membership of the semantic domain in which these idiomatic expressions fall. By
analysing the collocations found in a particular metaphorical expression, a language user is able to expand or enlarge his vocabulary store. For example, using the authors' example of the metaphorical concept that ARGUMENT IS WAR, common collocations which correlate to the metaphorical concept, such as “indefensible”, “attacked every weak point”, “right on target”, “demolished”, “won”, “shoot”, “strategy”, etc, could be put as members belonging to the semantic category of ARGUMENT. By applying this strategy to prepositional clusters such as up and down, which belongs to the semantic category of MOVEMENT and obeys the concept that “up and down” shows repeated movement, we would be able to include in this category common collocations correlating to this metaphorical concept such as “pacing”, “repeatedly”, “glancing”, etc.

Enlarging the membership of the semantic category to include words which are common collocates of the metaphorical concept would allow learners of English to organise their internal mental lexicon in a more efficient way so that storage and retrieval of lexical items would be more systematic and less of a memory strain for the learner. For example, Wright (1999) has suggested a creative way of learning idiomatic expressions by organising idioms according to metaphor (e.g. “Time is money”, “Business is war”, etc), topic (e.g. “Advice”, “Agreeing and Disagreeing”, etc) and key word (e.g. “Light and Heavy”, “Top and Bottom”, etc). Furthermore, by using Reddy’s (1993) conduit metaphor framework a language learner is also able to extend metaphorical concepts beyond that of ordinary literal usage; into the realm of figurative language to add colour to ordinary language. For example, the concept of “inverted” underlying the simple expression “upside down”, which is formed from prepositions, can be extended to include that of “disorder and chaos”, so that the
semantic domains in which lexical items can be included would be both concrete (e.g. table, chair, etc) as well as abstract items (e.g. thoughts, emotions, etc). Thus, by extending the usage of the literal metaphorical concept underlying “upside down”, so as to heighten its figurative usage, language users are able to project their thoughts and ideas even more colourfully for purposes of rhetoric. Context however, would play an even more important part in the uncovering of meaning behind these figurative uses than in situations of ordinary usage.

Lakoff's (1987) image-schema transformation model, which is part of his radial structuring classification model, can also be applied pedagogically in the classroom to explain the phenomenon how prepositional clusters do not suffer so much from the problem of misinterpretation due to polysemy, as single lexical words do. His image-schema transformation model will illustrate how prepositions, can be imagined in the form of their moving trajectories which eventually develop into an abstract schema as a result of the successful transformation from the basic moving image to an abstract metaphorical concept. The image-schema transformation model will explain the main function of prepositions as being deictic markers and as having a prototype meaning. In comparison with single lexical words, which do not have a moving trajectory image, misinterpretation of the various polysemous meanings frequently occurs as a result of the absence of a successful transformation from the moving image trajectory to an abstract schema. For prepositional clusters instead, ambiguity of the various meanings of the cluster does not easily occur because each meaning is truly an extension of the basic meaning and is derivable from the basic deictic meaning of the cluster. In contrast, though the multiple meanings of lexical words are also extended meanings of the basic meaning of the word (e.g. “see” -
“vision”, other meanings of “see” - “courtship, observe, ensure, etc) the process of derivation from the basic to the extended meaning of the word is more complex compared to that of prepositions. One possible reason could be that an image-schema transformation is not easily traceable since the basic lexical word is not deictic in its prototype meaning. This issue of lexical ambiguity is taken up in Section 3.9. For the moment, however, I would like to suggest that in cases where there are multiple meanings of single lexical words which do not have a basic spatial or temporal prototype meaning, these multiple meanings should acquire the status of new and independent words with their own distinctive usage.

With regard to Rumelhart’s (1993) top-down approach, I would like to suggest that this approach together with a bottom-up one can be beneficially applied simultaneously in the process of meaning construction. This two-prong approach could become beneficial in the construction of teaching activities where language learners notice and hypothesise about the grammatical behaviour and meaning usage of a prepositional cluster from its context. Consequently, internal hypotheses have to be made, thus activating the top-down process. However, since functional words rarely have meanings assigned to them, the language learner is forced to make meaning of the component words first by fitting and extending metaphorical concepts which he or she has learnt, before constructing the overall meaning of the expression. In this case, the bottom-up process is exercised. Thus, it would be relevant to claim that in the comprehension of prepositional clusters, neither the top-down nor the bottom-up approach can be exclusively applied in the absence of the other. Both approaches are equally important in language comprehension and also in activating the language awareness of the language learner. A fuller discussion of the applications
of both the top-down and bottom-up approaches to the design of teaching activities for prepositional clusters is found in Sections 3.10 and 5.6.3.

3.4 Application of cognitive principles to prepositional clusters

While most studies including those reviewed have used cognitive principles have focused on fixed expressions consisting of lexical words (see Lakoff and Johnson 1980; Lakoff 1987; Johnson 1987; Persson 1990; Sadock 1993; Rumelhart 1993; Reddy 1993; etc) or single prepositions (Brugman 1981, 1988; Rice 1992, 1993; Boers 1993; Dirven 1993; Sandra and Rice 1995), there have been none (to my knowledge) conducted on fixed expressions consisting of grammatical words or on prepositional clusters. While studies on single prepositions have been useful in illustrating how single prepositions embody mental concepts, these studies are not a true reflection of prepositional usage in actual everyday language communication.

Firstly, prepositional usage is not confined to that of the single prepositional word but rather in combination with other lexical words. Secondly, prepositions show a fluctuating information value as a result of their combination with lexical words. Finally, like lexical words which are able to form idiomatic and fixed expressions, prepositions are also able to form clusters of fixed expressions in various syntactic patterns, which are commonly used in everyday communication.

From corpus evidence of prepositional usage actually occurring in patterns, it would thus be more realistic even pedagogically to teach not single prepositional usage, but rather how single prepositions combine in respective patterns to form prepositional clusters. Also it would be beneficial as a way of increasing language awareness amongst learners about how language is patterned to focus on the
relationship between the constituent elements. Prepositional clusters containing one prepositional constituent will be investigated in Sections 3.7.1-3.7.5. Dirven’s (1993) categories of mental space such as time, circumstance, state, cause or reason, etc, are helpful abstract conceptual markers of organising the lexical domain in which there are members which collocate strongly with particular prepositions. For example, the prepositional cluster \textit{Adj/Adv + at} has many fixed combinations which all come from the domains of ability (\textit{good at, bad at, hopeless at}) or emotions (\textit{surprised at, angry at, disappointed at}).

\textbf{3.5}

While the previous sections have provided a short summary of the investigative aims as well as the theoretical background behind this chapter, the actual analysis will now begin in the next page.
3.6 Syntactic Patterning between Constituents of a Prepositional Cluster

The word patterns of prepositional clusters that will be investigated in this section using linguistic principles of corpus analysis and cognitive semantics are **phrasal units consisting of either one or two prepositional constituents**. Although one of the aims I have outlined in Chapters 1 and 2 about this research is to study prepositional clusters composed solely of grammatical words, I have decided to include in this chapter clusters composed of one prepositional constituent and one lexical word also, for two reasons:

- it is still within the general focus of this study, which is to investigate phrasal units of fixed prepositional expressions and not single prepositions. Prepositional clusters which are fixed, such as *by chance, by accident, by coincidence, worse off, better off, at least, at most, at all*, although consisting of one lexical word and one prepositional constituent, can be considered phrasal units because their constituents commonly co-exist.

- its inclusion lends greater depth and scope to the focus of this chapter, in which I will investigate the way in which the interaction between constituent particles might differ in prepositional clusters if these are composed of one or two prepositions.

The prepositional cluster patterns that I will be investigating in this chapter are:

a) Prep + and + Prep

b) Prep + Prep

c) Adj/Adv + Prep

d) Prep + Adj/Adv

e) Prep + Noun

f) Noun + Prep
I am aware of the existence of many examples of prepositional cluster patterns, but for purposes of this research, I have chosen to focus on the cluster patterns above since the concordance search in Section 1.2 has shown that there are many fixed expressions in English which are composed of these patterns. Furthermore, Frequency Table 1 in Section 2.0 has also shown that adjectives, adverbs and nouns are the most frequent collocates of prepositions and are thus most likely to form cluster patterns with prepositions. Verb–Prepositional pattern combinations will not be included in the analysis carried out in this chapter because they have been analysed in great detail by Hunston et al (1996).

In all cases, the analysis is aimed at investigating the following sub-hypothesis:

Sub-hypothesis 2a: There exist focusing constituent(s) in the syntactic patterning responsible for signalling the formation of a cluster in prepositional patterns composed of one and two prepositional constituents. Thus, there exists a constituent element(s) which form(s) strong collocates with other words, so as to be instrumental in creating a cluster.

Thus, the investigative question that would be asked is:

- which is(are) the focusing constituent(s) in the syntactic patterning responsible for signalling the formation of a cluster, i.e. which constituent element(s)in the prepositional clusters prep + and + prep, prep + or + prep, adj/adv + prep, etc, form(s) strong collocates with other words so as to be instrumental in forming a cluster.
3.6.1 Focusing constituent element(s) in Prep₁ + and + Prep₂

For this particular prepositional cluster pattern, I have separated the focusing elements of the cluster into two parts, forming the collocational units (Prep₁ + and) and (and + Prep₂). The justification for using these two particular collocational units is that without including the element “and” in either of the two units, the t-score frequency for the top 100 collocates, would be impossible to calculate if we were to use simply either Prep₁ or Prep₂ as the single focusing unit. This is because prepositions collocate with a large number of words, functional and lexical, and even with a small four word span to the left and right of the node, the number of collocating partners would be infinite and the t-score of the top 100 collocates for each preposition would be impossible to calculate. I have thus added the element “and” to each of the prepositional constituents thus forming two collocational units - (Prep₁ + and) and (and + Prep₂) - so as to restrict the number of collocational partners for each unit and make the t-score frequency possible to be calculated. The t-score frequencies of the top 100 collocates, for some of the prepositional clusters which were divided into the two collocational units, are shown below. The t-scores are based on data taken from the COBUILD corpus and refer to the ease with which each collocational unit prospects for a prepositional partner. For example, a higher t-score for the first unit would imply its relatively stronger collocational attraction for the second preposition, and vice versa. Each collocational unit that is being prospected is italicised and their t-scores are shown. The t-scores given below are based on some examples of prepositional clusters.

(up and) + down, up + (and down) = (32.7, 31.9)

(ups and) + downs, ups + (and downs) = (12.60, 12.49)
(in and) + out, ins + (and outs) = (7.07, 7.00)
(down and) + out, down + (and out) = (7.03, 8.22)
(out and) + about, out + (and about) = (4.3, 8.49)
(above and) + beyond, above + (and beyond) = (5.35, 5.31)
(over and) + above, over + (and above) = (8.62, 8.45)
(on and) + off, on + (and + off) = (19.02, 18.80)
(on and) + on, on + (and + on) = (15.78, 21.0)
(over and) + over, over + (and + over) = (23.89, 24.0)

From the corpus, it was observed that the t-scores for the prospected preposition, using either the collocational units (Prep₁ + and) or (and + Prep₂), were almost similar for most of the cases, except for the prepositional cluster where the t-score for the first collocational unit (out and) + about was almost half that of the second collocational unit out + (and about). For the rest of the cases, however, the close similarity in t-scores between the two collocational units indicates that the strength of collocation of each unit for a particular preposition is the same. This means that either unit, can function as a focusing unit which prospects for a particular preposition to form a prepositional cluster of the syntactic pattern Prep + and + Prep. However, each of the focusing units must include the element "and". Thus we can also conclude that "and" is the focusing element within the focusing unit. This is because it is a catalytic force for each focusing unit, which, when it is immediately preceded by or followed after a preposition, has the linguistic function of automatically prospecting for another preposition.
3.6.2 Focusing constituent element(s) in Prep₁ + Prep₂

For the clusters inside out and upside down, it was possible to get a t-score for the prepositional elements (Prep₁) inside and upside. However, the t-score frequency for the top 100 collocates was impossible to calculate for the prepositional elements (Prep₂) out and down respectively because of the infinite number of collocational partners that out and down have. In comparison to out and down, the prepositional elements inside and upside have a restricted number of collocational partners, out of which out and down respectively, are among the top 100 collocates. From the t-scores of inside out and upside down, we can conclude that the main focusing constituent responsible for the construction of this prepositional cluster pattern was the first prepositional element Prep₁ rather than Prep₂. Prep₁ had a stronger affinity for Prep₂ than the reverse. The t-scores for the prospected prepositions using the examples inside + out and upside + down are given below: The italicised prepositions are those that the t-scores refer to. The symbol • is used to show that the t-score could not be calculated.

(inside + out, inside + out) = (8.62, •)

(upside + down, upside + down) = (18.2, •)

For other examples of prepositional clusters I found which exhibited the Prep₁ + Prep pattern, e.g.s round about, down under and in for, it was impossible to calculate the t-score frequencies of the top 100 collocates, for either Prep₁ or Prep₂. Unlike the words “inside” and “upside” in inside out and upside down, the prepositions round, about, down, under, in and for, when considered as individual collocating units, had an infinite number of collocational partners which made it almost impossible to calculate the top 100 collocates.
Unlike the previous prepositional cluster pattern Prep + and + Prep, where the element "and" was an essential catalytic fixing force in the collocation unit which automatically prospected for other prepositions preceding or following it, it can be concluded from analysis of the t-scores that no such catalytic fixing force exists in the prepositional cluster pattern Prep + Prep. This finding could account for the impossibility of calculating a t-score for either prepositional constituent because there are just too many collocational partners even within the top 100 collocates for each preposition.

An interesting observation I made while trying to find t-scores for individual prospected prepositional units in clusters exhibiting the pattern Prep₁ + Prep₂, was that despite neither prepositional unit being the fixing force, t-scores could be calculated as long as a particular verb became part of the colligational pattern. By using a particular verb that immediately preceded the cluster pattern (verb + Prep₁ + Prep₂), I was able to restrict the number of collocational partners that the first prepositional constituent had. Consequently, I was able to observe the t-score for the top 100 collocates of the first prepositional unit. By observing the concordance lines provided when I keyed in the prepositions round, about, down, under, in and for individually, I was able to isolate some verbs that preceded the cluster and which had strong collocations with it.

While it was possible to isolate particular verbs that immediately preceded the prepositional cluster pattern, it was not possible to find any semantic words that followed immediately after the prepositional cluster that collocated strongly with it. Once again, t-scores for the top 100 collocates could not be calculated due to the infinite number of collocational partners that followed immediately after the cluster.
The t-scores below demonstrate the collocational strength of the first prepositional constituent \( \text{Prep}_1 \) for the second constituent \( \text{Prep}_2 \), which is among the top 100 collocates, when there is a verb preceding \( \text{Prep}_1 \). For every prepositional cluster, I have shown only one example of a verb that immediately precedes \( \text{Prep}_1 \) for purposes of illustration, because there are many other verbs that strongly collocate with the preposition, and it is not within the scope of this discussion to analyse and categorise all these other various verbs. The t-scores refer to the italicised preposition being prospected for. The symbol • once again, is used to show that a t-score could not be calculated.

\[
\text{(come round) + about, (come round) + about} = (1.40, \, •) \\
\text{(stand up) + against, (stand up) + against} = (7.09, \, •) \\
\text{(came in) + for, (came in) + for} = (1.03, \, •) \\
\text{(toured down) + under, (toured down) + under} = (4.10, \, •) \\
\text{(seemed about) + to, (seemed about) + to} = (2.54, \, •)
\]

From the t-scores above, it is possible to postulate that the presence of a particular verb that immediately precedes the first prepositional constituent (\( \text{Prep}_1 \)) and which strongly collocates with this first prepositional constituent is the main focusing constituent element in the prepositional cluster pattern \( \text{Prep}_1 + \text{Prep}_2 \). Like the “and” element in the cluster \( \text{Prep}_1 + \text{and} + \text{Prep}_2 \), this verb acts as the main catalytic fixing force, which together with the first prepositional element (\( \text{Prep}_1 \)), automatically prospect for the second preposition (\( \text{Prep}_2 \)). We could conclude that the presence of this particular (verb + prep) collocational unit is responsible for signalling the formation of the prepositional cluster pattern - \( \text{Prep} + \text{Prep} \).
3.6.3 Focusing constituent elements in prepositional clusters consisting of one prepositional constituent

In the previous sections, it was clear that in prepositional clusters where there were two prepositional constituents (\(\text{Prep}_1 + \text{and} + \text{Prep}_2\), \(\text{Prep}_1 + \text{Prep}_2\)) neither of the prepositional constituents were the focusing one. Instead the collocational strength necessary for the formation of the prepositional clusters depended on the elements "and" (\(\text{Prep} + \text{and} + \text{Prep}\)) and the verb immediately preceding the prepositional cluster (\(\text{Prep} + \text{Prep}\)), as evidence from the t-scores showed.

When it came to analysing t-scores of prepositional clusters containing only one prepositional cluster however, (\(\text{Adj/Adv} + \text{Prep, Prep} + \text{Adj/Adv, Prep} + \text{Noun, Noun} + \text{Prep}\)), it was observed that the focusing constituent(s), responsible for the formation of the preposition cluster by virtue of its strong collocational tendencies once again was not the \(\text{Prep}\) constituent, but rather the \(\text{Adj/Adv}\) or \(\text{Noun}\) constituent. This is because similar to the clusters containing two prepositional constituents, t-score frequency for the top 100 collocates was impossible to calculate because the number of collocational partners for any preposition is infinite. It was however possible to calculate the t-score frequency of the top 100 collocates for the adj/adv or noun constituent in which a preposition was always ranked among the top of the 100 collocate partners shown in the frequency list. This means that the adj/adv or noun was able to prospect for a prepositional partner more easily than a preposition to prospect for an adjective, adverb or noun partner. To demonstrate the above finding, the t-scores for the adj/adv and noun constituents versus that of the prepositional constituent are shown below for purposes of comparison. The examples analysed are typical prepositional clusters that come from the following patterns:. 

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a) Adj/Adv + Prep e.g.s better off, worse off, badly off, well off

b) Prep + Adj/Adv e.g.s at all, at most, at least, at last

c) Noun + Prep e.g.s reason for, need for, demand for

d) Prep + Noun e.g.s by mistake, by accident, by chance

In the illustrations that follow, the t-score is for the word (adjective, adverb, noun or preposition) being prospected, which has been italicised. The symbol • is used to show that a t-score could not be calculated

a) Adj/Adv+ Prep

(better + off, better + off) = (18.64, •)

(worse + off, worse + off) = (1.61, •)

(well + off, well + off) = (2.47, •)

(badly + off, badly + off) = (1.15, •)

b) Prep + Adj/Adv

(at + all, at + all) = (•, 14.80)

(at + most, at + most) = (•, 1.51)

(at + least, at + least) = (•, 4.22)

(at + last, at + last) = (•, 1.65)

(in + general, in + general) = (•, 11.44)

(in + short, in + short) = (•, 16.54)

(in + particular, in + particular) = (•, 41.78)

(The extremely high t-score here reflects the strong collocational strength of “particular” for the preposition “in” compared to the rest of the examples)
c) Noun + Prep

(reason + for, reason + for) = (51.2, •)

(The extremely high t-score here reflects the strong collocational strength of "reason" for the preposition "for" compared to the rest of the examples)

(need + for, need + for) = (26.99, •)

(demand + for, demand + for) = (25.90, •)

d) Prep + Noun

(by + mistake, by + mistake) = (•, 1.8)

(by + accident, by + accident) = (•, 12.8)

(by + chance, by + chance) = (•, 3.46)

(by + coincidence, by + coincidence) = (•, 7.6)

3.7 Conceptual Metaphorical Relationship between constituent elements

If the previous sections focused on the signalling constituent elements of a cluster, here I will continue the investigation further, but this time concentrating on the kind of criteria that exist for selection of constituent elements in the formation of a cluster. The sub-hypothesis for this section is thus given below:

Sub-hypothesis 2b: There exists a criterion for selection of prospective constituent choices in the formation of a prepositional cluster. This criterion is based on two conditions - a conceptual metaphorical relationship and a common abstract lexical domain.
In this study, a conceptual metaphorical relationship refers to a relationship between constituent elements which show opposing or reinforcing metaphorical concepts. A common abstract lexical domain on the other hand refers to the semantic field which constitutes elements that have membership e.g. the domain of emotions, coincidental events, causes/reasons, etc.

For the analysis, I will apply the concept of prototype meaning which has also been used in research by Brugman (1981, 1988), Rice (1992), Boers (1996), Boers and Demecheleer (1998) and Lindstromberg (1996, 1998) on the single prepositions “over”, “up” and “down”. I would like to reiterate the point made earlier in Sections 1.5, 3.2.1 and 3.2.2, that the overall meaning interpretation of prepositional clusters becomes simpler if one relies on comprehension of basic prototypical concepts related to the up-down, front-back, in-out, far-near and left-right dimensions.

I will seek to demonstrate that metaphorical meaning interpretation can be aided as a result of the combination of deictic meaning interpretation and common metaphorical concepts associated with a particular preposition. Put simply, metaphorical meaning interpretation is thus the result of the extension of the prototypical spatial and temporal conceptual meaning of the prepositional constituents into other mental conceptual domains such as state, area, period, manner, means, etc. This claim can be illustrated in the analysis of prepositional clusters comprising two prepositional constituents which follow the word pattern: Prep + and + Prep, Prep + Prep, which can be found in the next section.

I am aware that in cases of clusters where the prepositional constituents do not demonstrate any of the prototypical concepts of the front-back, in-out, left-right, up-down and far-near dimensions, a problem arises in expressions such as by and large.
Interpretation of the overall meaning of *by and large* is difficult because *by* is not prototypically associated with the front-back, in-out, left-right, up-down and far-near dimensions and we are not able to guess the meaning of the expression if we apply simply a prototype approach to all prepositions. In cases like this, meaning interpretation using principles of cognitive semantics is not always of help. Other linguistic principles of meaning interpretation need to be employed, such as those of corpus analysis. A fuller discussion of how EFL learners might benefit from an awareness of some linguistic principles they could apply in interpreting idiomatic and metaphorical meanings will be given in Chapter 5 and 6.

3.8. Opposing and Reinforcing Conceptual Relationship: \( \text{Prep} + \text{and} + \text{Prep}, \text{Prep} + \text{Prep} \)

From analysis of the data, it was discovered that there was an "attaching" force between the prepositional constituents, found in the prepositional clusters exhibiting the syntactic patterns: By "attaching force", I mean a force which reflects the semantic relationship between \( \text{Prep}_1 \) and \( \text{Prep}_2 \) based on a prototypical conceptual relationship. This "attaching force" between the prepositional elements were of two types - opposing and reinforcing - i.e. the metaphorical concepts attached to each constituent either opposed or reinforced one another.

The analysis also highlighted a fact that the prepositions found as constituents in the two syntactic patterns: \( \text{Prep}_1 + \text{and} + \text{Prep}_2, \text{Prep}_1 + \text{Prep}_2 \) are usually prepositions which reflect the up-down, in-out, front-back, left-right and far-near dimensions. The overall meaning of the expression is thus a meaning extension of these spatial and temporal dimensions into metaphorical one which projected into the domain of state, area, period, manner or means, circumstance, cause or reason, etc.
3.8.1 Opposing semantic relationship in $\text{Prep}_1 + \text{and} + \text{Prep}_2$, $\text{Prep}_1 + \text{Prep}_2$

In this section, I will demonstrate the notion of an opposing semantic relationship using the examples *up and down* and *inside out* which reflect the syntactic pattern $\text{Prep}_1 + \text{and} + \text{Prep}_2$ and $\text{Prep}_1 + \text{Prep}_2$ respectively. I will also list some of the common metaphorical concepts attached to each preposition and show how these metaphorical concepts oppose one another, thus creating this opposing semantic relationship between the prepositional constituents $\text{Prep}_1$ and $\text{Prep}_2$. I will use Langacker’s (1991) schema-prototype-extension network to demonstrate this opposing semantic relationship on various examples found below:

A) up and down:

Prototype meanings (Spatial) for *up, down*:

```
UP  .
```

```
DOWN
```

Common metaphorical concepts for *up, down*:

POSITIVE EXPERIENCES
(e. g. good, high status, control, heaven)

```
LIFE
```

NEGATIVE EXPERIENCES
(e. g. bad, low status, lack of control, hell)

```
LIFE
```
Prototype Meaning of constituents + Metaphorical Concepts of constituents =

Meaning of *up and down*:

**Meaning 1:** repeated physical movement in a defined space

*e.g.*,  

His fingers were still around Tug's wrists as he looked the woman *up and down*...  

Cologne was sprayed about and lipsticks swished *up and down*...  

The trains, running *up and down* from London to Stanmore and back...

![Diagram of repeated physical movement](image)

**Meaning 2:** positive and negative human experiences

*e.g.*:  

our marriage has its *ups and downs*, but it is mainly on the up and up...  

the success of which has not been tied to the everyday *ups and downs* in the hurly-burly of school life...  

As a pressman, I've had my *ups and downs* with Tommy...

![Diagram of ups and downs in life](image)

---

1 All data for this chapter has been taken from the BNC, COBUILD and CANCODE corpora
B) inside out:

Prototype meanings (spatial) for inside, out

Common metaphorical meanings for inside, out:

Prototype meanings of constituents + Metaphorical concepts of constituents = Meaning of inside out

Meaning 1: inversion

Egs

...the players turn their shirts inside out...

...the child's socks were dirty so she had turned a pair inside out...

...the ugly girl turned her lips inside out...

...the lovedoll was turned almost inside out...
Meaning 2: detailed knowledge of

...He knows his subject absolutely *inside out*...

...He knew the division *inside out*...

...I know this one *inside out*...

...as he was a ...professional journalist, he already knew the media *inside out*...

Meaning 3: chaos

...they had turned his flat *inside out*...

...had once turned the Iris society *inside out*...

......it gave her the feeling of being turned *inside out* for better examination...
More examples of opposing semantic relationship:

Here are further examples demonstrating an opposing semantic relationship between Prep₁ and Prep₂. However, the list here is not meant to be exhaustive.

a) Prep₁ + Prep₂

...his smile almost turns his face inside out with smugness...

...they had turned his flat inside out and questioned him...

...had once turned the Iris Society inside out with excitement...

...he knows his subject inside out...

...He knew the division inside out...

...They know them inside out...

Sometimes he could be observed wearing some garments inside out...

Inversion is thus a kind of “turning inside out” effect...

...he pulled off his jacket in a hurry and left one sleeve turned inside out...

(Data taken from COBUILD, CANCODE and BNC)

b) Prep₁ + and + Prep₂

...and we went up and down as if we were on springs...

...panting as he scrambled up and down the ladder...

...his emotional ups and downs are part of a manic depressive syndrome...

...Life is full of ups and downs and I know that there are going to be bad times...

...a self-destructive actress who drifted in and out of the story...

...patterns of adult members being in and out of sync with one another...

...we knew the ins and outs of the situation at hand...

...Bill was aware of the ins and outs of the problem...
...I've read a lot of arguments to and fro...

...the old motorbike carried him to and fro...

A point to add is that analysis of data also revealed that adverbs could also form clusters of the type which showed an opposing metaphorical relationship between the constituents. However, these adverbial clusters have to be of the syntactic pattern: Adv$_1$ + to + Adv$_2$ which has a parallel structure to Prep$_1$ + to + Prep$_2$ where the two adverbial constituents (Adv$_1$ and Adv$_2$) also demonstrate an opposing relationship. Another adverbial cluster which demonstrates this opposing relationship is Adv$_1$ + and + Adv$_2$. Some examples of adverbial clusters which show an opposing relationship are given below:

...baseball hats worn back to front...

...Vicky began writing back to front and upside down a year ago...

...I think it's all er back to front er the way the government is...

...born, after her mother’s protracted...labour with her right foot twisted back to front...

...we must have driven several thousand miles back and forth between Al...

...Hauser paced slowly back and forth at the far end...

...Back and forth their bodies went, like a pair of dancers...

...He wrenched the knife back and forth to free it from the planking...

...the stone-work mellows, and here and there vineyards appear...

...delicate bamboo-screens placed here and there...

...pulling at a weed here and there and swishing away flies...

(Data taken from COBUILD, CANCODE and BNC)
3.8.2 Reinforcing semantic relationship in $\text{Prep}_1 + \text{and} + \text{Prep}_2$, $\text{Prep}_1 + \text{Prep}_2$

In this section, the prepositional clusters *over and above* and *round about* which are examples of the syntactic patterns $\text{Prep}_1 + \text{and} + \text{Prep}_2$, $\text{Prep}_1 + \text{Prep}_2$ respectively, will be used to demonstrate a reinforcing semantic relationship. The diagrammatic representations below indicate that the metaphorical concepts and prototype meanings of the prepositional constituents $\text{Prep}_1$ and $\text{Prep}_2$ are almost similar and actually *intensify* and *strengthen* one another and thus, the overall meaning of the expressions.

a) $\text{Prep} + \text{and} + \text{Prep}$: *over and above*;
Prototype meanings of *over, above*:

\[
\text{ABOVE} \\
\text{OVER}
\]

Common metaphorical concepts for *over, above*:

\[
\text{MORE THAN} \\
\text{IN EXCESS OF}
\]

Prototype meanings of constituents + Metaphorical meanings of constituents = Meaning of *over and above*

**Meaning 1**: surpassing, exceeding the norm
e.g.s
...increase average prices by 5% over and above inflation...
...special reasons why this should be the case, over and above those that have been applied...

b) Prep + Prep: round about

Prototype meanings of round, about:

Common Metaphorical concepts of round, about:

VICINITY

...so she’s been round about the South of England...
...ordered his tents to be pitched round about Valencia...
...and the people round about would tug at her and shout...

Prototype meanings of constituents + Metaphorical concepts = Meaning of round about

Meaning 1: Surround

...I’ll put a girdle round about the earth...
...and fortified round about with sharp trees...
...you elements that clip us round about...
Meaning 2: Approximation

![Diagram of a scale with values 20, 15, 10, 5, and W]

e.g.s

...settled into what looked like immobility *round about* 1950...

...between the two stations *round about* 500 times a second...

...I think you’re looking *round about* twenty years...

Meaning 3: Traffic-junction

![Diagram of a roundabout]

e.g.s

...just after the *round about* intersection with the B3274...

Meaning 4: Circuitous

![Diagram of a route from A to B]

e.g.s

...Sorry to bring you on this *round about* route...

...She let Gwer up by a *round about* way...

...could have spoken in a *round about* manner...
Other examples showing a reinforcing conceptual relationship:

A) Prep₁ + and + Prep₂

...Gail, 39, is *up and about* early to travel..

...The elephant should be *up and about* in ten minutes...

...lots of friends who like to get *out and about*...

...it's nice just being *out and about*...

...they are currently *out and about* on their first major tour...

...and Sporting looked *down and out* when irrepressible Gavin Peacock struck twice...

...It's the worse you can imagine, *down and out* in Wigan...

...they had in different measures contributed to society *over and beyond* their work...

...many books are...desirable possessions...*over and beyond* the value of information...

...it rolled *over and over* several times, preening its paws...

...*Over and over* again, the hands danced through the same short sequence of signs...

(Data taken from COBUILD, CANCODE and BNC)

It is interesting to note that adverbials can also show form clusters of the sort Adv + Adv which show a reinforcing metaphorical relationship between the adverbial constituents Adv and Adv. Some examples of this are shown below:

B) Prep + Prep

...I lost interest *round about* a week when I was with them...

...he does very well. And *round about* him, his band of assorted...

...located on the right, just after the *round-about* intersection with the B3274...

...I should have known what I was in for. She was silent for a moment...

...If they try they're *in for* a nasty surprise...

...the Gulf crisis may mean he's *in for* an easier ride...
...the Prince of Wales's trip *Down Under*...

...Koresh's current destination *down under*...

... is tearing rugby league apart *Down Under*...

...And I know exactly what I am *up against*. There are plenty of quick wingers...

...for her steward Antonio comes *up against* a sense of power, hers over him...

...Police are often *up against* a wall in trying to get evidence...

...But this time he will be *up against* the Banana team...

...Come on, come on, the game's *about to* start...

...the pain you are undergoing or are *about to* is extreme...

...Her time at 12.5 miles was *about to go up* on the result board...

(Data taken from BNC, COBUILD and CANCODE)

Adverbial clusters of the sort *Adv + Adv* which are parallel in syntactic patterning to *Prep + Prep* also show this reinforcing metaphorical relationship between the constituents. The examples below show this:

...you can never go so *far out* that you can't get back...

...raffs with beautiful wing-like sails - *far out* onto the open sea...

...from the record labels, you won't stray *far out* of the west...

...But if your old polling station is too *far away*...

...are a bunch of enthusiasts, from as *far away* as Holland...

...Follow a story deep-rooted in *far-away* lands, with colours of sand...

(Data taken from BNC, COBUILD and CANCODE)

The next page will now investigate the semantic relationship between lexical constituents in clusters containing *one* prepositional constituent.
3.9 Semantic relationship between lexical constituents in prepositional clusters containing one prepositional constituent

With regard to the semantic relationship of the constituents of the prepositional cluster containing only one preposition, it was not possible to postulate an opposing or reinforcing relationship between the constituents. This is because there are numerous examples in English which show one particular preposition in combination with many lexical words which are adjectives, adverbs or nouns. For example, the preposition at is found in expressions like good at, bad at, hopeless at, clever at while the preposition about can be found in expressions like angry about, nervous about, furious about, excited about, worried about. Also, two prepositions (sometimes even three) can attract the same words. This is illustrated by the prepositions at and by which can both attract the adjectives “surprised”, “shocked”, “astonished”, “amazed” in expressions like surprised at/by, shocked at/by, astonished at/by. The prepositions about, at and by on the other hand, can all attract the adjectives “excited”, “furious”, “nervous” in expressions like excited about/at/by, furious about/at/by, nervous about/at/by.

The observations made that single prepositions attract large numbers of lexical words and that sometimes more than one preposition attract the same words, can illustrate that single prepositions do not form random combinations with any lexical word. Instead single prepositions show a semantic preference for particular groups of words. By “group” I mean a set of words that share membership in a common conceptual domain(s) and that behave with the same grammatical function when co-occurring with a preposition. Observing the relationship between constituent elements in phrasal units containing one preposition, can thus only be attempted by specifying a few of the common conceptual domain(s) from the set of lexical words that co-occur.
with a preposition as well as the grammatical functions of the cluster as a whole. This approach is advantageous in the sense that the focus on the information value associated with a single preposition in a cluster is now lessened and so too, the related problem of fluctuating information value. This is because the focus is now on the lexical rather than the prepositional constituent of the cluster.

The focus suggested above allows a possible classification for clusters containing one prepositional constituent. This issue as well as the classification of clusters containing two prepositional constituents are discussed in further detail in Chapter 4.

In order to specify the common conceptual domain(s) based on the group(s) of lexical words that a single preposition tends to attract, data from the BNC, COBUILD and CANCODE corpora will be analysed. Furthermore, the overall grammatical function of the cluster will be observed from the data in the investigation. The analysis conducted is not meant to be an exhaustive one but is simply illustrative of some typical patterns and trends exhibited by the set of lexical words that tend to co-occur with a particular preposition.

The prepositional clusters that will be analysed in the next few sections are:

a) \((\text{better/worse/badly/better/well}) + \text{off}\),

b) \(\text{at} + (\text{least/most/all/last})\),

c) \((\text{good/bad/hopeless/clever/useless})/(\text{surprised/shocked/astonished/amazed}) + \text{at}\),

d) \(\text{by} + (\text{coincidence/accident/mistake/chance})/(\text{car/bus/train/foot})\)

e) \((\text{reason/cause/excuse})/(\text{demand/need}) + \text{for}\).

They are typical examples of clusters which illustrate the patterns \text{Adj/Adv} + \text{Prep}, \text{Prep} + \text{Adj}, \text{Prep} + \text{Noun} and \text{Noun} + \text{Preposition} respectively.
3.9.1 (better/worse/badly/well) + off

Evidence from the corpora shows that for this particular prepositional cluster, the common conceptual domain specified is one of state or condition. This finding has been derived as a result of observing that the adjectives and adverbs better, worse, badly, and well are used to compare the well-being and condition of a person or institution like a company, business or even a country before and after a certain event. The adjectives also have an intensifying function as a result of being gradable since they have comparative or superlative forms. There is also a prosody conveyed depending on the gradable adjective or adverb chosen. Thus, better off and well off would convey a prosody of improvement in general well-being whereas worse off, and badly off would convey a prosody of deteriorating conditions which can be seen from the examples below. In all cases, the prepositional clusters function as adverbs.

...if you're not sure you will be better off by taking a job, ask to see...

...Young children are better off with Enid Blyton she says...

...he would be better off letting them do his talking for him...

...will bring them back to where they were...some pensioners will still be worse off...

...That's all very well but I'm worse off than I was before...

...if you're separated, you can be worse off if you do not have a full pension...

...my wife and I are badly off as we have the state pension...

...he's also quite a tricky dresser and not badly off...

...I'm not badly off, you know, I have some money from my mother's side...

...so your brother's just fairly well off?...

(Data taken from COBUILD, BNC and CANCODE)

Thus for the preposition off, its tendency to attract the set of lexical words like "badly", "well", "worse", "better" shows that this particular preposition can co-occur
with the set of adjectives that belong to a conceptual domain illustrating “State or Condition”. A linguistic pattern that can be formulated based on this observation is:

**Adjectives showing State or Condition + off**

3.9.2  *at + (least/most/all/last)*

Analysis of the data revealed that this set of adverbials or determiners (least, most, all, last) which tended to be attracted to the preposition *at* could belong to the domain of “Quantity”. This is because the adverbials illustrate a general usage as maximisers (*at most*), minimisers (*at least*) or amplifiers (*at last, at all*), postmodifying the main verb. In all cases, their overall grammatical function when combined with the preposition *at* is as an adverbial. The linguistic pattern that could summarise this observation is: *at + Adverbials/Determiners showing Quantity*

The data below demonstrates this particular observation where it can be seen that the adverbials or determiners in the clusters illustrate minimising, maximising and amplifying meanings thus emphasising a reference to Quantity:

**Usage 1: Amplifier:**

...won’t do that image any good *at all*...

...why answer it *at all*?

...seating himself said once more, *Not at all*...

...Freedom *at last* he said...

...Now, *at last*, Radio 1 has a Controller who...

...Here, *at last*, was a narrative that made sense...

**Usage 2: Minimiser:**

...we fought like cat and dog the whole time...or *at least* most of the time...

...the bourgeois was... *at least* a member of a superior race...
...At least, most wore trousers...

Usage 3: Maximiser:

...It would be true, at most, of a certain sort of naturalistic cognitive theory...

...Hepzibah was good at most things she did...

...a trip to America, where CDs are, at most, two-thirds of the UK price...

(Data taken from COBUILD, BNC and CANCODE)

3.9.3 (good/bad/hopeless/clever/useless)/(surprised/shocked/astonished/amazed) + at

While the previous sections might have given the impression that only one common conceptual domain is derived for one particular preposition, it is then appropriate in this section to illustrate that most of the time, this is not so. For the preposition at, it is possible to specify two conceptual domains based on the sets of adjectives (good, bad, hopeless, clever, useless) and (surprised, shocked, astonished, amazed). The first set of adjectives show common membership in the domain "Ability" while the second set show membership in the domain "Emotional Reaction". In all cases though, the overall grammatical function of the clusters are as complements. The linguistic patterns that illustrates this observation can be: Adjectives showing Ability + at and Adjectives showing Emotional Reaction + at
e.g.s. Adjectives showing Ability + at

...I didn't want to be boring, but I'm good at it." Bono said...

...I've never been particularly good at chatting up women...

...he was very bad at committing to women...

...to a deep primal need. I hate being bad at things...

...I'm hopeless at discipline...

...made it. In fact they were as hopeless at sanctity as we are...
...you sing like a donkey and are useless at pinball...

e.g.s. Adjectives showing Emotional Reaction + at

...you may be surprised at how well you can juggle them...

...contracts are so devious, you'd be surprised at the clauses hidden...

...Haig was astonished at Petain's proposal...

...9 December 1903: 'I am astonished at what you say re the loan...

...Mr Major said he was excited at assuming the leadership of the...

...agrees, of course, then gets so excited at the idea it crocks her up...

...You'll be amazed at the improvement in your score...

...on the market. You really will be amazed at the difference..

(Data taken from COBUILD, BNC and CANCODE)

3.9.4 by + (mistake/accident/chance/coincidence)/(bus/foot/car/bike)

In the above examples, it is clear once again that the two groups of nouns which
by is attracted to come from the conceptual domains "Unintentional Act" and "Transport"
as demonstrated by the set (mistake, accident, chance, coincidence) and (bus, foot, car,
bike) respectively. On analysis of the data, it is also observed that the overall
grammatical function for the set of nouns (mistake, chance, coincidence, accident)
when combined with by is adverbial while the set (car, foot, train, bike) when
combined with by functions as a complement post modifying the verb. It was also
observed that sometimes intensifying adverbs (e.g. completely, quite, almost), limiter
adjectives (e.g. first), intensifying adjectives (e.g. just) also co-occurred with the first
set of nouns in pre-modifying positions. It is thus possible to write linguistic patterns
illustrating the observations made:

by + Nouns showing Unintentional Act and by + Nouns showing Transport.
...As a result some publications no longer deal in real information at all, except occasionally *by accident*!...

...Teaching came about almost *by accident* for Robin Child...

...Both might just *by accident* hit on the fraudulent behaviour eliciting the desired response, and subsequently adopt it as a strategy in such situations...

...went for a drive around Oxfordshire, and miles up a cart track, purely *by chance*, he found Beckley...

...I'd abandoned the empty house and walked joyfully into the woods and only *by chance* did I know what had hit me...

...Not until her mid-thirties did she find her taste change, and even then *by chance*...

...But what if he *gets Caspar first by mistake*!...

...she'd been put on that file -- 'just *by mistake'*...

...There was a wild quality in her innocence that startled him; it was as if he had violated and deflowered her quite *by mistake*...

*egs.* *by + Nouns showing Transport*

...it's a long way round *by bus*...

...service to London were driven *by bus* across the border...

...Griffins had arrived at Cap Martin *by car* and were very generous with offers..

...If you're travelling *by car*, avoid activities such as reading...

...He would come *by train*, a five-hour trip...

...porters were shipped somewhere *by train*...

...evacuation meant evacuation *by foot*, down dozens of flights of stairs...

...traverse the land *by foot*, for which they have become known...

(Data taken from COBUILD, BNC and CANCODE)
3.9.5 (reason/cause/excuse/explanation)/(need/demand/requirement/request) + for

The above two sets of nouns that tend to be attracted to the preposition for, are those that belong to the conceptual domains of "Cause" (reason, cause, excuse, explanation) and "Desire" (need, demand, requirement, request). Observation of data also shows that for the second group of nouns, they can be premodified by adjectives like "real", "pent-up", "urgent" which convey a prosody of intensification. In both sets however, the overall grammatical function of the nouns when combined with for are as complements. The linguistic patterns that summarise the above observation are:

Nouns showing Cause + for and Nouns showing Desire + for

These patterns can be found in the examples below:

e.g.s. Nouns showing Cause + for

...Buddha grass, he murmurs, the main reason for staying in this god-awful country...

...Harriet tried to ignore the possible reason for the marriage which had sprung unbidden...

...but a good enough reason for coming is just to sample the friendly local hospitality and exotic food...

...There is no excuse for this littering of our village...

...rather than the bankers, is not an excuse for domestic inactivity...

...If you have cause for complaint about the work done...

...Some cause for self-congratulation, I feel...

e.g.s. Nouns showing Desire + for

...their need for purity, for blood sacrifices...

...interest in Europe has triggered the need for this booklet...

...the Peacock Committee strongly believes in the urgent need for individuals to determine their own needs and wants...
...there was a great demand for his own deselection...

...in the case of demand for hotels, market segments would be tourist visitors....

...in theory, there should be lots of pent-up demand for commercial radio in Britain...

(Data taken from COBUILD, BNC and CANCODE)

3.10 Metaphoricity in prepositional clusters

The analysis in this section aims to show that most basic and extended meanings of prepositional clusters can be substitutable with other phrases or words which express an equivalent meaning. This aim can be reformulated into a sub-hypothesis which will be explored subsequently in the next few sections:

Sub-hypothesis 2c: The degree of metaphoricity of prepositional clusters depends on two criteria - substitutability and transformation. Thus, metaphoricity relies on the degree to which a word or phrase of equivalent meaning is substitutable. Also, it depends on the extent to which the basic spatial meaning of the prepositional cluster can be transformed into an extended meaning which is considered metaphorical, by virtue of common semantic markers between the extended meaning and the basic one.

In my analysis, I will be applying Lakoff's (1987) image-schema transformation and discussing it at great length in the next section. I find Lakoff's model useful not only to explain the dilemma of misinterpretation for single lexical words as a result of polysemy, but also as a cognitive mechanism that mirrors the language comprehension process. In his model, Lakoff explains when an image pictured in the mind is transformed into an abstract schema or concept, its assigned
meaning is transformed into a metaphorical one. As a result, metaphorical usages become figures of speech which can always be substituted by words or phrases to show their literal meaning.

### 3.10.1 Degree of Substitutability in prepositional clusters containing two prepositional constituents

In this section, analysis will reveal that substitutability of the basic and extended senses is possible only in prepositional clusters containing two prepositional constituents (Prep + and + Prep, Prep + Prep) and not for those containing one prepositional constituent. A fuller explanation of this difference will be found in the next section. The examples below illustrate the words or phrases of equivalent meaning which can be substituted for each cluster consisting of two prepositional constituents.

1) Prep + and + Prep

<table>
<thead>
<tr>
<th>Prepositional Cluster</th>
<th>Word/phrase with equivalent meaning</th>
<th>Lexical Domain</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>down and out</strong></td>
<td>finished, defeated</td>
<td>State/Condition</td>
</tr>
<tr>
<td><strong>over and beyond</strong></td>
<td>in excess</td>
<td>Measurement</td>
</tr>
<tr>
<td><strong>above and beyond</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>up and about</strong></td>
<td>healthy and active</td>
<td>Condition/Activity</td>
</tr>
<tr>
<td><strong>out and about</strong></td>
<td>physically active</td>
<td>Movement/Activity</td>
</tr>
<tr>
<td><strong>in and out</strong></td>
<td>repeated movement</td>
<td>Spatial Direction</td>
</tr>
<tr>
<td><strong>ins and outs</strong></td>
<td>complexities, intricacies</td>
<td>Means, Method</td>
</tr>
<tr>
<td><strong>up and down</strong></td>
<td>repeated movement (internal only)</td>
<td>Spatial Direction</td>
</tr>
<tr>
<td><strong>ups and downs</strong></td>
<td>good times and bad times</td>
<td>Events</td>
</tr>
<tr>
<td><strong>out and out</strong></td>
<td>extreme</td>
<td>State/Condition</td>
</tr>
<tr>
<td><strong>out and away</strong></td>
<td>much</td>
<td>Emphasis</td>
</tr>
<tr>
<td><strong>over and over</strong></td>
<td>repeatedly</td>
<td>Manner</td>
</tr>
<tr>
<td><strong>on and on</strong></td>
<td>without stopping</td>
<td>Movement/Activity</td>
</tr>
<tr>
<td><strong>on and off</strong></td>
<td>infrequently</td>
<td>Time Span</td>
</tr>
</tbody>
</table>
2) Prep + Prep

<table>
<thead>
<tr>
<th>Prepositional Cluster</th>
<th>Word/Phrase with equivalent meaning</th>
<th>Lexical Domain</th>
</tr>
</thead>
<tbody>
<tr>
<td>upside down</td>
<td>inverted or chaotic</td>
<td>State/Condition</td>
</tr>
<tr>
<td>inside out</td>
<td>in reverse, intimately</td>
<td>Manner</td>
</tr>
<tr>
<td>round about</td>
<td>approximately</td>
<td>Measurement</td>
</tr>
<tr>
<td>down under</td>
<td>Australia, New Zealand</td>
<td>Location/Countries</td>
</tr>
<tr>
<td>in for</td>
<td>about to be affected by</td>
<td>Future event</td>
</tr>
<tr>
<td>up against</td>
<td>confronted with</td>
<td>Adversity</td>
</tr>
<tr>
<td>about to</td>
<td>ready to</td>
<td>Future event</td>
</tr>
</tbody>
</table>

From the examples given above, it is clear that each prepositional cluster is quite easily substitutable with a word or phrase of equivalent meaning. This is probably because each cluster belongs to only one particular lexical domain or conceptual domain. By applying Lakoff's (1987) model, it is possible to explain how the metaphoricity of a prepositional cluster is derived from its basic spatial meaning. When there are two prepositional constituents, the ease in transformation from basic meaning to extended meaning is expedited by the fact that both constituents have a moving trajectory which quickly transforms its image into an abstract schema or concept. This then changes the prototype meaning assigned to a preposition into a metaphorical one. The overall expression is thus deemed metaphorical in usage, by virtue of common semantic markers between the two meanings. As a result of these common semantic markers, the metaphorical meanings of any prepositional cluster can always be substituted by words or phrases, whose meaning belong to the same lexical domain as the abstract concept. The concept explained here ties in neatly with sub-hypothesis 3b (see section 3.5) in which the prototype meaning assigned to the preposition (most of the time the prototype meaning is deictic) becomes expanded and projected into various domains such as state, area, period, manner or means,
circumstance, cause or reason, etc, as a result of common metaphorical concepts associated with the preposition.

To illustrate the concept, let us take the cluster *ins and outs* as an example and trace how it has acquired its metaphorical usage (intricacies, details, complexities) from its spatial meaning (repeated physical movement). Thus, in order to know something very well, we literally have to know information that is obvious (extension of spatial meaning “outside”) and information that is not obvious (extension of spatial meaning “inside”). It is obvious that *ins and outs* shares the common semantic meaning of “inside and outside” with the basic one *in and out*, thus enabling the first meaning to be derived from the second.

3.10.2 Degree of substitutability in prepositional clusters containing only one prepositional constituent: Frozen structures

While it is possible to find a substitutable word or phrase with an equivalent meaning for prepositional clusters containing two prepositional constituents, this substitution process is usually not possible for prepositional clusters containing only one prepositional constituent. The exceptions to this substitution process are phrasal verbs which have not been considered in this research since they have already been analysed in some detail by Hunston *et al* (1997). In the case of the clusters analysed earlier (Adj/Adv + Prep, Prep + Adj/Adv, Noun + Prep, Prep + Noun) the ease in transformation from the image of a moving trajectory to that of an abstract schema or concept is not possible because of the presence of the adjective, adverb or noun. The lexical words (e.g. “enough”, “mistake”, “better”) which come from these grammatical classes and that combine with prepositions (e.g. *enough of*, *by mistake*, *better off*) do not have a trajectory image. It can thus be suggested that in clusters
containing only one prepositional constituent, the presence of a lexical constituent such as an adjective, adverb or noun, neutralises the deictic effect of the prepositional constituent in the cluster. Consequently, this process of neutralisation prevents an image-schema transformation, resulting in the absence of an extended or metaphorical meaning. The effect is that there are no substitutable words or phrases of equivalent meaning which can be found for these clusters and consequently, their overall meaning is more literal than figurative.

Since the image-schema theory has provided a possible explanation for the absence of substitutable words or phrases of equivalent meaning for prepositional clusters containing only one prepositional constituent, I have only specified some conceptual domains that certain prepositional clusters belong to, based on the set(s) of lexical words that tend to co-occur with a particular preposition. Since it is not possible to specify all the possible conceptual domains for each preposition, the diagrams below illustrate only a few for some typical cluster patterns.

a) Adj + Prep

Adj + at

good at, bad at, clever at, hopeless at -> Ability

Adj + at/by

surprised at, shocked at, astonished at, amazed at -> Emotional Reaction

Adj + of

afraid of, frightened of, scared of, proud of, -> Feelings

tired of, envious of, jealous of,

b) Prep + Adj/Adv

in + Adj/Adv

in particular, in general, in short -> Precision and Vagueness

at + Adj/Adv

at most, at least, at worst, at all -> Quantity
c) Noun + Prep

Noun + for

reason for, cause for, explanation for, excuse for → Cause/Reason
demand for, need for, request for, requirement for → Desire

Noun + of

Abstract Conceptual Domain
answer to, solution to, reply to, invitation to, → Requests and reactions
reaction to

d) Prep + Noun

by + Noun

Abstract Conceptual Domain
by mistake, by accident, by chance, by coincidence → Unintentional Act
by car, by foot, by train, by bike → Transportation

3.11 Metaphoricity and Polysemy

As a final discussion for this chapter, I would like to briefly comment on an issue related to metaphoricity, which is the polysemous behaviour of lexical words. I am highlighting this issue since it has been illustrated in Chapter 2 and the previous sections that prepositional clusters are lexical units of meaning. Although they have various meaning usages just like polysemous words, the clusters do not suffer from the problem of lexical ambiguity unlike single lexical words.

Lexical words which are polysemous are similar to prepositional clusters in that the various meanings associated with the word or cluster belong to various lexical domains giving the impression that each word has a new and distinct usage. All these usages are extended meanings which can however be traceable to the prototypical meaning of the word. To illustrate this point, the lexical word “see” and the prepositional cluster “down and out” are used. For the word “see”, humour arising from lexical ambiguity is found in the following joke taken from the popular TV sitcom “Friends”. In this joke, A and B are talking about A’s female neighbour who lives across his building:
A: So how long have you been seeing this girl?

B: Oh, about three and a half years until she had the curtains put in...

The humour arising from B’s misinterpretation of A’s question is due to the fact that there are two meanings of “see” used in this context, which are “dating” and “vision”. The problem of misinterpretation arose not as a result of context but due to the fact that while “dating” is an extension of the prototype meaning of the word “vision”, the process of derivation from the basic to the extended meaning is more complex compared to that of prepositions. There are also many other meanings of “see” (observe, ensure, to show understanding, etc) which are also extended meanings of the prototype meaning “vision” but once again their process of derivation from the basic to the extended meaning is a complex one.

In prepositional clusters, the combination of the prototypical spatial meaning and the strong metaphorical association surrounding each prepositional constituent (shown in Sections 3.5-3.6.2) aids in meaning interpretation. Thus, the meaning of the cluster “down and out” (defeated or someone suffering from a lack of money) which is an extension of the spatial (below, exterior) and metaphorical associations (low status, excluded) associated with each preposition, is easily derivable. However, this is true only for clusters containing two prepositional constituents. In clusters containing one prepositional constituent, most of the lexical constituents that do combine with a preposition are not usually polysemous and are part of a set of lexical words which have membership in a defined conceptual domain (See Sections 3.7-3.8.2). This restrictive membership is responsible for the frozen structures such clusters have and it is for this reason that lexical ambiguity does not arise for the overall cluster.
With prepositional clusters of two constituents thus, meaning interpretation is always aided by the **image-schema transformation** (see section 3.9 and Lakoff, 1987: 108) theory, which asserts that there has to be some kind of moving spatial trajectory from a concrete object, which forms the basis for extension from a basic spatial meaning. By schema, it is meant to refer to familiar concepts about the world which are associated with basic images that are physically concrete such as moving trajectories, superimposition of one object with another. Johnson (1987) refers to this schema as a cognitive processing ability which is a result of our interactions, experiences in life and knowledge about the world. The schemata can be defined as “general knowledge structures, ranging from conceptual networks to scripted activities to narrative structures and even to theoretical frameworks” (See Johnson, 1987: 19). They then become repeated identifying patterns, which are embodied in our experiences, perceptions and image formations of objects.

Johnson (1987) and Lakoff’s (1987) cognitive approach to meaning is one of the simplest explanations of basic mental processing for meaning interpretation. Their approaches probably also demonstrate how the straightforward image-schema transformation that is possible for spatial prepositions is not applicable to lexical words like “see”. The process of deriving extended meanings for “see” from its prototype one is a more complicated process which is beyond the scope of this research. A diagram summarising the above argument is given below.
a) Prepositional cluster: *down and out*

Prototype Meaning + Metaphorical Concept → Extended Meaning

- **Down** (below) + **Down** (bad, low status, etc) → Down and Out (lack of money) 
  - Image-schema transformation
- **Out** (exterior) + **Out** (exclusion) → Down and Out (lack of money) 
  - Image-schema transformation

b) Lexical word *see*

Prototype meaning → Extended meanings (New and Distinct Usages)

- *see* (vision) → observe, ensure, consider, courtship, etc...
3.12 Conclusion and Summary of findings

I would like to conclude this chapter by summarising all the main findings which have been observed from the investigation of sub-hypotheses 2a, 2b and 2c.

- With regard to the syntactic patterning within prepositional clusters, analysis has shown that there are:

  - **focusing constituent(s)** in the syntactic patterning responsible for signalling the formation of a cluster, i.e. constituent element(s) in the prepositional clusters prep + and + prep, prep + prep, adj/adv + prep, noun + prep etc, which form(s) strong collocates with other words and is(are) instrumental in forming a cluster. In all the examples of prepositional clusters analysed, it was found that **none of the focusing constituents were prepositions**. This showed prepositions have an infinite number of strong collocational partners.

  The findings with regard to prepositional clusters containing **one** and **two** prepositional constituents are summarised below:

  => in prepositional clusters containing **two** prepositional constituents, the focusing element for the pattern Prep + and + Prep can be considered the element "and", which is a **catalytic fixing force**, when in combination with a preposition immediately preceding a preposition or immediately following it. This combination automatically searches for prospective prepositions to collocate with it. This is shown by the findings in Section 3.4.1, where each of the prepositional units (Prep + and) and (and + Prep) prospected for a prepositional collocate as seen by an almost similar t-score. This verified that the constituent and, which was present in both units, was the catalytic force.

  => in prepositional clusters containing **two** prepositional constituents, the focusing element for the pattern Prep₁ + Prep₂ is neither of the prepositional constituents
but the verb that immediately precedes this cluster in combination with the first prepositional element $\text{Prep}_1$. Thus the unit ($\text{Verb} + \text{Prep}_1$) could prospect for a collocate, whereas the unit ($\text{Prep}_2$) could not. Thus the combination of ($\text{Verb} + \text{Prep}_1$) as a unit was a catalytic fixing force responsible for automatically prospecting the second prepositional constituent $\text{Prep}_2$. These findings are confirmed in Section 3.4.2.

⇒ in prepositional clusters containing one prepositional constituent e.g. $\text{Adj/Adv} + \text{Prep}$, $\text{Prep} + \text{Adj/Adv}$, $\text{Noun} + \text{Prep}$, $\text{Prep} + \text{Noun}$, once again it is not the preposition that is the focusing element. Instead the focusing element is the adjective, adverb or noun constituent. These findings are confirmed in Section 3.4.3.

• With regard to the selection of prospective constituent choices in the formation of a prepositional cluster, analysis has also shown that there exists either a conceptual metaphorical relationship or common abstract lexical domain between the constituent elements in the prepositional cluster. The selection depends on the number of prepositional constituents within the cluster. Thus,

⇒ in clusters containing two prepositional constituents, the conceptual metaphorical relationship is either opposing ($\text{in and out}, \text{up and down}$) or reinforcing ($\text{up and about}, \text{down and out}$)

⇒ in clusters containing only one prepositional constituent, we can only specify the abstract conceptual or lexical domain from which there are members that collocate strongly with a particular preposition. For example, the preposition $\text{by}$ which is used in the clusters $\text{by mistake, by chance, by accident}$ and $\text{by coincidence}$, has a tendency to attract the lexical words "$\text{mistake}$", "$\text{chance}$", "$\text{accident}$", and "$\text{coincidence}$". This set of words belongs to the domain of unintentional act.
With regard to the degree of metaphoricity a prepositional cluster can have, analysis has shown that the degree depends on the number of prepositional constituents in the cluster. Thus:

⇒ for prepositional clusters containing two prepositional constituents, metaphorical or extended meanings can be derived from the basic meaning. This is a result of successful image-schema transformations (Lakoff 1987; 108) that have arisen as a result of the cluster being composed only of deictic markers. Consequently, a word or phrase of equivalent meaning can be substituted in place of the prepositional cluster.

Except for phrasal verbs, other prepositional clusters that contain only one prepositional constituent (e.g. Adj/Adv + Prep, Prep + Adj/Adv, Noun + Prep, Prep + Noun), have no metaphorical meanings associated with them. The overall usage of the cluster is predominantly literal in meaning as no image-schema transformation can take place. This is because the cluster is composed of a lexical constituent which has a non-deictic function that neutralises the deictic effect of the prepositional constituent. Consequently, substitutability with a word or phrase of equivalent meaning is not possible since no extended meaning has been formed. For these clusters however, it is possible to specify the abstract conceptual domain that they belong to.

All the findings summarised in this chapter and in Chapter 2 are summarised in a table. The table is composed of two axes: a vertical axis which shows the common syntactic pattern found in prepositional clusters and a horizontal axis which shows the overall metaphorical conceptual domain of the cluster.

By referring to the table it is also possible to briefly describe how the summary table could be used for pedagogical purposes in the teaching and learning
of prepositional clusters. The pedagogical approach to be taken will make use of linguistic principles of corpus analysis and cognitive semantics, which I feel are the most suitable to address the needs of language learners. According to Rubin (1975),

"The good language learner is constantly looking for patterns in the language. He attends to the form in a particular way, constantly analysing, categorising and synthesising. He is constantly trying to find schemes for classifying information..."

(Rubin, 1975: 41)

The lexico-grammatical findings in Chapters 2 and 3 have relied heavily on the skills of "analysing, categorising and synthesising" patterns in language and their forms using linguistic principles of corpus analysis and cognitive semantics. Similarly for teaching and learning purposes, a pedagogical approach that encourages and activates a similar kind of sensitivity and awareness of patterns and form could be useful for language learners. This approach could be beneficial especially in the teaching and learning of common word patterns like prepositional clusters. A fuller discussion of this approach, its justification and the skills it aims to develop, however, will be given in Chapters 5 and 6. For now, a brief description of how the summary table could encourage sensitivity and awareness of patterns in language and the analysis of their form through such an approach will be given. Thus, depending on the level of the class, a teacher could tailor her lessons to reflect either of two teaching aims:

1) to emphasise the collocational tendencies of single prepositions.

- Teaching activities should show how single prepositions can co-occur with other prepositions to form fixed expressions. Also, these expression have a different grammatical function and idiomatic meaning from their constituents. In this case, the starting point for the teacher would be at the vertical axis (syntactic patterns).
From this axis, she is able to select examples of common syntactic patterns found in prepositional clusters, compare the difference and similarity in usage with their constituents and then analyse the meaning of these clusters as they are used in everyday communication. Students can later classify these meanings into conceptual domains as part of the learning.

2) to extend learners' knowledge of a particular conceptual domain.

- Teaching activities should provide examples of fixed prepositional clusters which fall into a particular concept, e.g. space or time, as well as how these clusters can be extended or projected to form metaphorical meanings within that conceptual domain. In this case, the starting point for the teacher would be to focus on the abstract conceptual domains (horizontal axis). He or she can then analyse examples from the various syntactic prepositional patterns which reflect this concept.

  Teaching strategies that will be used in the approach can focus on raising the awareness of students about both the form (syntactic patterns) and meaning (common metaphorical concepts and conceptual domains) of the prepositional cluster being taught. What is important however is that the teacher should provide authentic and challenging data which allow students to analyse the form and meaning usages of these common clusters. However, the issue of providing authentic and challenging data will once again be dealt with in Chapters 5 and 6.
<table>
<thead>
<tr>
<th>Syntactic Patterns</th>
<th>Word/phrase of equivalent meaning</th>
<th>Grammatical Function</th>
<th>Feelings</th>
<th>Direction</th>
<th>Knowledge</th>
<th>State/Condition</th>
<th>Intensifier</th>
<th>Manner</th>
<th>Cause/Reason</th>
<th>Activity/Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>prep + and + prep</td>
<td></td>
<td></td>
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<tr>
<td>in and out</td>
<td>repeated movement</td>
<td>Adv, Adj</td>
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<td>ins and outs</td>
<td>complexities</td>
<td>Noun</td>
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<tr>
<td>up and down</td>
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<td>good times and bad times</td>
<td>Noun</td>
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<tr>
<td>down and out</td>
<td>finished, defeated</td>
<td>Noun, Comp.</td>
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<td>up and about</td>
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<td>Adv, Adj</td>
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<td>extreme</td>
<td>Comp.</td>
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<td>much</td>
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<tr>
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<td></td>
</tr>
<tr>
<td>by mistake</td>
<td>None</td>
<td>Adv.</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>by chance</td>
<td>None</td>
<td>Adv.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>by accident</td>
<td>None</td>
<td>Adv.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>by coincidence</td>
<td>None</td>
<td>Adv.</td>
<td></td>
<td></td>
<td></td>
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Chapter 4: Semantic Representation of Prepositional Cluster Patterns

4.0 Introduction

The aim of this chapter is to categorise the lexico-grammatical features observed about prepositional clusters using the findings from Chapter 2 and 3, in an organised and systematic way. Since it has been observed from analysis that prepositions are lexical units of meaning, with their own unique linguistic identity, they should be categorised in a way which reflects their difference from single prepositions. My aim in this section is twofold:

1) to explain how previous network representations\(^1\) of prepositions have not been able to adequately show the syntactic and semantic properties of prepositional clusters because network representations have the following weaknesses:

a) Network representations tend to be vague because they show a general representation of the various senses of the prepositions. Thus, only basic and extended meanings are represented at a superficial level. They are not able to show distinctions between the abstract metaphorical meanings of prepositions and their basic spatial meaning.

b) Network systems do not give a realistic representation of how prepositions are actually used in everyday language communication. They treat prepositions as if they exist singly, and not as clusters of fixed expressions composed of prepositional constituents only or in combination with other lexical words. One reason for this shortcoming is probably because most of the examples used by

\(^1\) See Section 0.4 for a detailed discussion on various network models of lexis
analysts are invented, based on intuition rather than on observation and analysis of authentic examples.
c) Network systems are not able to show adequately the syntactic and semantic relationship between constituent elements of a prepositional cluster, based on the common syntactic patterns formed (e.g. Prep + and + Prep, Adj/adv + prep, etc) and related metaphorical concepts of constituent elements. Thus, they are not able to show how extended metaphorical meanings have been derived from the basic spatial ones.

2) to propose a superordinate categorisation which seeks to unify and describe as explicitly as possible the syntactic formation, semantic relationship between constituent elements and the overall grammatical function of the cluster.

The semantic representation that I am interested in applying is one that mirrors the human cognitive learning process, which is based on linguistic principles of corpus analysis and cognitive semantics.

Traditionally, the lexicon has been viewed as a mental system consisting of diverse lexical conceptual fields. Inside these lexical fields, there are members which are more central than others and are called prototypes of that particular category, by virtue of their early acquisition and ease of retrieval (See Lehrer, 1974; Rosch, 1973, 1975 and 1978). Other attempts in the field of lexical semantics by prototype theorists have shown that “no specific criteria categories can be posited which apply to all members equivalently” (Rosch, 1978: 42), which consequently becomes very problematic because not all lexical categories are clearly defined. Thus, members belonging to one category might also belong to another category, maybe not as central members or prototypes but as peripheral members. Lakoff (1987) and Langacker (1988, 1990, 1991 and 1993) have expanded on the prototype theory over recent years.
and have included other cognitive mechanisms which are concerned with the process of extended meaning senses, such as the image-schema transformation and the prototype-extension-schema network respectively.

With regard to the study of single prepositions, Brugman (1981), Rauh (1991), Rice (1992, 1993), Boers (1996) and Lindstromberg (1996, 1998) have researched the problem of overlapping membership with attempts to apply prototype-based notions in classifying prepositions. However, as shown previously in Sections 3.8.1-3.8.2, prepositional clusters do not suffer from the problem of overlapping membership, namely because the fixing force of the cluster depends greatly on its syntactic patterning as well as the related metaphorical concepts that bind the constituent elements together. Thus, it is inappropriate to use a network model to demonstrate the basic and extended senses of the cluster because it attempts to unify diverse lexical domains which do not exist in prepositional clusters. Prepositional clusters instead have a cohesive relationship within themselves, which relies heavily on a) the syntactic patterning of the constituent elements and b) the metaphorical concepts which bind these elements together. Thus, membership relies on the above two criteria, eliminating "fuzzy" members which belong to other lexical domains, and even peripheral members. I am suggesting that a superordinate classification is the most appropriate means of illustrating a) the criteria for membership as a prepositional cluster as well as b) the prospective subordinate members of the superordinate structure that qualify. Furthermore, a superordinate structure does not attempt to unify diverse lexical camps. Rather, it creates a hierarchical categorisation which is holistic and complete in itself with a generator at the top of the hierarchy.
The above discussion about the need for a superordinate classification can be summarised in terms of its two main characteristics. Thus, a superordinate classification of prepositional clusters is able to:

1) unify the apparently unrelated prepositional constituents of prepositional clusters by showing the close association between them in terms of syntactic patterning and the related metaphorical concepts that they express.

2) demonstrate that there are no “fuzzy” or peripheral members in the superordinate categorisation, by virtue of the strict criteria for membership that prospective subordinate members must have, thus eliminating the problem of polysemy.

Before I illustrate my approach to categorising prepositional clusters, I would like to highlight some principles which have been influential in my design of the framework. These principles are based on previous works which have investigated the mental lexicon from psychological perspectives and how these perspectives should be reflected in the representation of prepositions.

4.1 Review of work conducted on spatial and metaphorical categorisations in language

One of the first studies which investigated the relationship between human categorisation and Natural Language Processing was by Rosch in 1978. She hypothesised five principles of human categorisation and it is the second principle about perceived world structure which is perhaps relevant to explaining how prototypes can also exist in language structures. According to Rosch, the perceived world structure contains an organised and structured set of correlational attributes and that the ability by humans to perceive these attributes is a result of their interaction with the physical and social environment. One result of these interactions is the
formation of the culture of the community, which influences how the attributes are perceived and defined by members of that community.

Another point which Rosch explains in her paper is that of the effects of prototypicality in the section on “The Logic of Natural Language Use of Category Terms: Hedges, Substitutability into Sentences, Superordination in ASL”. According to Rosch, meanings of words are tied closely to their use in sentences. This means that in superordinate categories, member terms can only be substitutable for superordinate words in sentences, provided they are logical in their usage. Frequency should not be a factor when making the choice. She gives the example of the sentence “Twenty or so birds often perch on the telephone wires outside my window and twitter in the morning”, where it is logically possible to substitute the term “sparrow” for “bird”, but not “turkey”.

While Rosch’s (1978) work emphasised on the notion of prototypicality derived from psychological investigations as a criterion to classification in the mental lexicon, Dirven (1985) preferred to concentrate his study on classification by proposing a structure of the mental lexicon. Dirven posited that the mental lexicon was made up of an interaction between various basic levels of language structure and he applied his theory to the categorisation of metaphors at different levels to illustrate the interactional processes that occurred within the mental lexicon. He also claimed that his categorisation imitated the structure of the lexicon and suggested means for extending the meanings of existing lexical items, with regard to metonym, metaphor and synaesthesia.

One of the findings of his paper was concerned with the various basic levels of language structure and metaphor. Dirven identified four levels of metaphor, all of
which allowed "a new semantic aspect, i.e. a tenor to be expressed", summarised below:

<table>
<thead>
<tr>
<th>Level of metaphor</th>
<th>Vehicle</th>
<th>Tenor</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) sound metaphor</td>
<td>sound - <em>sw</em></td>
<td>swift, fast motion</td>
<td><em>swirl</em></td>
</tr>
<tr>
<td>2) word metaphor</td>
<td>morpheme - <em>heart</em></td>
<td>imp part of synae.</td>
<td><em>heart of the matter</em></td>
</tr>
<tr>
<td>3) sentence metaphor</td>
<td>substitution of anim subject of <em>see</em> by inan. time expression.</td>
<td>something new or different has been attained</td>
<td><em>The fifth day saw</em> them at the summit.</td>
</tr>
<tr>
<td>4) discourse metaphor</td>
<td>stereotypes of pet animals and relationsh between them develop into a story.</td>
<td>the bitter struggle between rival parties in the Russian revol.</td>
<td><em>Animal Farm</em> by G. Orwell</td>
</tr>
</tbody>
</table>

With regard to his second aim of the study, Dirven concluded that aspects of metaphor, metonym and synaesthesia account for two-thirds in meaning extensions of a particular word in the lexicon. He also concluded that metaphorical extensions are not isolated from linguistic rules of a language, but on the contrary, seem to be interwoven with these linguistic rules in a very intricate way.

Dirven's classification of metaphors at the phonological, word, sentence and discourse level is innovative in its aim to analyse how metaphors are organised in the mental lexicon. His classification is used later in Rauh's (1991) model of the mental lexicon, where various mappings between the phonological, syntactic and semantic levels occur to form the four kinds of metaphors (sound, word, sentence and discourse) that Dirven has postulated.

Despite Dirven's careful classification of metaphors, a category of metaphors he has missed out is that of the phrasal metaphor, which can be found in prepositional clusters (e.g. *up and about*, *down and out*, etc). Although it could be argued that these metaphorical prepositional clusters can be substitutable by a word, many of them are
not and have to be substituted with a phrase. For example, it is not possible to substitute the prepositional cluster *up and about* with a word except by a phrase such as “conscious and moving around”. Perhaps a phrasal metaphor level could be included because it is not only prepositional clusters that are phrasal but also other commonly used idiomatic phrases like “get a raw deal”, “cold feet”, etc (see Moon, 1998: 92).

With regard to meaning extensions of a particular word in the lexicon, Dirven does not distinguish between usages derived from the basic meaning and usages which have acquired new and distinct meanings, independent from their prototype usage. For example, in prepositional clusters, it is correct to say that all extended meanings are metaphorical because they have been derived from their basic spatial meaning as a result of successful image-schema transformations (see Lakoff, 1987). However, for single lexical words, like the word “cup” which Dirven uses to show that it has more than one meaning besides “container for drinking liquids” but also means “trophy”. I would like to suggest that the multiple meanings of single lexical words such as “cup” are not extended meanings but new lexical words which might have derived their meaning from the prototype meaning “cup” in the sense of “trophy”. In cases of lexical words with polysemous meanings, I have already suggested in Section 3.9 that although the multiple meanings of single lexical words can be eventually traced back to the prototype meaning, they should be given independent status as new lexical words with their own distinct usage.

4.2 Review of some studies conducted on the cognitive categorisation of prepositions

While the previous section has discussed some interesting principles used in the categorisation of the mental lexicon, this section will now review some work
which have applied other psychological perspectives to the categorisation of prepositions. Two studies which have investigated such categorisations are by Rauh (1991) and Sandra and Rice (1995).

Similar to Dirven’s (1985) study of imitating the mental lexicon, Rauh’s (1991) categorisation of prepositions was aimed at illustrating how prepositional forms could also be represented as a model of the mental lexicon, given that a single phonological form was related to more than one and/or semantic representation. The main criteria for a model of the mental lexicon was that it

"...should be a model of all the knowledge a native speaker has about individual linguistic items of his language such as words or constituents of words, as well as about the relations holding between these. The knowledge about "lexical items" includes knowledge about their connection with conceptual units. In this sense, the lexicon forms an interface with respect to the conceptual system..." (Rauh, 1991: 155)

The model that Rauh proposed was characterised as a set of lexical entries, marked and unmarked, which carried information on the syntax, semantics and phonology. According to Rauh, the identity and individuality of the lexical entry depended on how the various levels of representation were mapped onto one another. The lexicon had to provide all the information for the mapping process. In language production and perception, this information had to be accessed in order to produce and understand complex linguistic units, such as idiomatic meanings in fixed expressions. For language perception, the information accessed was at the phonological level which was then mapped onto the syntactic and semantic levels for analysis to be performed. For language production however, mapping started from either the syntactic or semantic levels to other levels of representation.
A more recent work which has investigated prepositional representations is by Sandra and Rice in 1995. Their article offers an interesting evaluative analysis of traditional prepositional network representations. Sandra and Rice (1995)’s findings show that such networks have a number of weaknesses, some of which are summarised below:

1) there is a lack of clear methodological principles for the identification of distinct usage types

2) there is too wide a range of representational variants of network models

3) there is a vagueness of whether the usual types refer to semantic distinctions (different meanings of the words) or referential distinctions (different contextualisations of a single meaning)

They also conducted three experiments which attempted to discover the relationship between the linguistic distinctions in lexical networks and the distinctions in mental representation made by native speakers. They discovered that language users are able to make distinctions between the general spatial and temporal usages of preposition types as well as distinctions at a more specific level such as effects in “landmark dimensionality”. Sandra and Rice concluded their study claiming that network representations which predict that distinctions are made simply at the level of mental representation are not tenable with the cognitive linguistics approach to meaning.

Sandra and Rice’s findings about the lack of clear methodological principles for the identification of distinct usage types in prepositional networks could be explained by the fact that a network model attempts to unify diverse lexical domains. As a result networks do not seek to identify the distinct usage types of prepositions. Network models thus give a general representation of the various usage types of
prepositions at the surface level and do not address the issue of whether the various usages are semantic or referential.

The findings of Rice and Sandra about the general weaknesses of network models highlight important reasons for the need to use a more realistic model which does not reflect simply the superficial basic spatial and temporal similarities and differences between different prepositions. There needs to be a model that shows also distinctive abstract relationship between them, from which metaphorical expressions and extended meanings are created. This issue will be addressed in greater detail in Section 4.5.

4.3 Applications of cognitive classification principles to pedagogy

An advantage of Rosch's (1978) work on categorisation and prototypes to pedagogy is the value of logic that would accompany the process of categorisation. For example, a classification of binomials or compounds such as prepositional clusters could be organised using a criterion based on metaphorical concepts. Thus, members in the classification had to share some sort of correlational attributes. The benefit to students in terms of mental processing is that they could extend this logic based on such a criterion to any other binomial or compound. Taking prepositional clusters as an example of a binomial, a rule which could dictate the formation might depend on:

1) constituents which possessed metaphorical concepts that opposed or reinforced on another. Thus formations such as in and out, ins and outs, far and away, over and beyond, inside out, upside down are allowed, but not * in and up, * out and over, * indown or * inup.
In the application of the above logic, students are being made more aware of how simple metaphorical language involving prepositions is formed, so that they can apply this logic to other particle clusters such as adverbs. Ultimately, another benefit for the student would be a decrease in the lexical strain of having to memorise meanings of simple idiomatic or metaphorical expressions. The issue of using metaphorical concepts as a membership criterion to the categorisation of binomials and compounds, using prepositional clusters as examples of these will be discussed in the next section.

4.4 Superordinate Classification of Prepositional Clusters

In this section, I will be using a superordinate classification to categorise prepositional clusters containing two prepositional constituents as well as those containing one prepositional constituent. A superordinate classification is useful as a systematic way of organising the above because it combines the syntactic patterns of prepositional clusters with the common metaphorical concepts they express, thus binding the subordinate members of the superordinate classification according to specific criteria. A superordinate categorisation reflects the cognitive processing abilities of how a language user is able to integrate his or her own linguistic knowledge with knowledge about the world. This is because by placing any generator or prototype member at the top of the superordinate hierarchy, there is an instant activation which would trigger off various associations in the mind (spatial, metaphorical, abstract) based on world knowledge as well as on linguistic knowledge (e.g. syntactic or semantic) about that particular preposition. Of course the extent and degree of triggering off various associations depends very much upon context. My aim of using a hierarchical model such as a superordinate categorisation, is to
integrate the language user's world knowledge with his or her linguistic knowledge about prepositional clusters. The integration is a reflection of the cognitive processing abilities. The proposal of using a hierarchical model which illustrates the mental processing abilities of the language user as a result of his or her linguistic knowledge (syntactic or semantic) is supported by Langacker (1988, 1990, 1991 and 1993) who says that:

"the linguistic system subsumes units representing the same phenomenon at varying levels of detail and resolution. These form hierarchies in which a schema at a given level is elaborated or instantiated by subschemas...." (Langacker 1991; 2)

Based on Langacker's assertions, an example of a unit which can "represent the same phenomenon at varying levels of detail and resolution" is that of the prepositional cluster. Here, basic spatial and extended meanings of the prepositional clusters can be represented in a hierarchy where there is a schema (prototype meaning) at a given level which is "instantiated by subschemas" such as syntactic patterning and related metaphorical concepts at the subordinate level.

Besides its use as a cognitive model reflecting mental processing abilities, the superordinate categorisation is also preferred as a more realistic representation of prepositional usage over traditional network models for the following reasons:

1) a superordinate categorisation has the advantage over network representations in that it is able to capture surface-level (referential spatial distinctions) as well as deep-level semantic distinctions (abstract conceptual relationships) of various prepositions. These distinctions can be seen at the phonological, syntactic and semantic levels of representations.
2) network models cannot adequately illustrate the referential and semantic distinction between prepositions, because network models are designed to unify diverse lexical domains. They are not designed to show distinctions in usage types, whereas hierarchical models can.

3) network representations lack clear methodological principles for the identification of distinct usage types whereas in a superordinate categorisation of prepositional clusters, criteria such as syntactic patterning and metaphorical concepts form the basis of identification of basic spatial meanings and metaphorical extensions.

With regard to the superordinate classification proposed for the study of prepositional clusters, the model used in this research is found below:

Superordinate:
Type:
Syntactic Pattern:
Prototype/Generator member:
General metaphorical concept of prototype and related concepts:
Members that oppose prototypical attribute:
Members that reinforce prototypical attribute:
Grammatical function(s):

The basic principle guiding the structure of the superordinate structure is that it seeks to combine a basic syntactic pattern of prepositional cluster with common metaphorical concepts or abstract domains associated with the constituent elements. The categorisation uses a top-down approach in which each subsequent level below can only be filled after information at the top level has been completed. Thus when the Superordinate level has been filled with information e.g. “Prepositional clusters”, only then can we proceed to fill the next level - Type. In this level, we fill in the number of prepositional constituents for the cluster - one or two. Based on the number
of prepositional constituents, some common **Syntactic Patterns** for the prepositional clusters can be entered e.g. Prep + and + Prep, Adj/Adv + Prep, Prep + Noun, Noun + Prep, etc. Next, a **Prototype/Generator member** is entered which sets the criteria for screening prospective subordinate members based on related metaphorical concepts and common syntactic patterns formed with the generator member. At the lowest level, the grammatical function for each cluster can be entered after having observed their collocation and colligational patterns from principles of corpus analysis. Some examples of prepositional clusters which can be represented in a superordinate categorisation are given below:

**EXAMPLE 1:**

**Superordinate:** Prepositional Clusters

**Type:** two prepositional constituents;

**Syntactic Pattern:** Prep + and + Prep, Prep + Prep

**Prototype/Generator member:** down

**General metaphorical concept of prototype and related concepts:** DOWN IS BAD, UP IS GOOD, OUT IS EXCLUSION

**Subordinate members that oppose prototypical attribute:** up, upside down, up and down, ups and downs

**Subordinate members that reinforce prototypical attribute:** out, down and out

**Grammatical function:** noun, adverb, complement

**EXAMPLE 2:**

**Superordinate:** Prepositional Clusters

**Type:** two prepositional constituents

**Syntactic Pattern:** Prep + and + Prep, Prep + Prep

**Prototype/Generator Member:** in, inside

**General metaphorical concept of prototype and related concepts:** IN/ INSIDE IS INCLUSION, OUT IS EXCLUSION, FOR IS DIRECTED TO,

**Subordinate members that oppose prototypical attribute:** out, in and out, inside out, ins and outs,

**Subordinate members that reinforce prototypical attribute:** for, in for

**Grammatical function:** adverbial, complement, noun
In the above cases where prepositional clusters containing two prepositions are classified, a point to note is that, although we do specify a prototype member at the top of the superordinate structure, the status is only a "token" one as there are no actual central or peripheral members. This is because any of the members can qualify as the prototype member at the top of the superordinate structure, by virtue of the common metaphorical concept that this prototype member expresses and functions only as a generator. Note that this approach of using a prototype generator member is different from network representations where a central member is used to unify peripheral members. Hence, a prototype member will generate related or opposing metaphorical concepts which will act as criterion for membership at the subordinate level. By using this particular criterion of generating only related or opposing metaphorical concepts at the subordinate level, it is possible to eliminate the problem of ill-formed prepositional clusters that are not found in everyday communication e.g. *in and about, *out and for, etc. Thus, we are able to enforce clear boundaries for membership at the subordinate level. There will be no such thing as a "fuzzy" member which has membership in more than one superordinate structure, so the problem of misinterpretation which occurs frequently in single lexical words as a result of polysemy does not surface in the case of prepositional clusters because members are "monogamous" as they remain within the superordinate structure.

For prepositional clusters containing only one prepositional constituent, this superordinate classification can also be used, except that, instead of generating related or opposing metaphorical concepts for prospective members at the subordinate level, this time the prototype member will generate only one particular abstract conceptual domain e.g. the domain of emotions, spatial relationship, social relationship, etc. This is because, as shown in Section 3.7, in such clusters the lexical word that is attached
to the single preposition tends to neutralise its deictic effect, thus not allowing any transformation to an extended or metaphorical meaning. Frozen structures conveying only literal meaning are formed instead. A slight modification of the categorisation is thus needed to take this observation into account. Membership at the subordinate level is strictly controlled by virtue of members belonging to only one particular abstract conceptual domain and not by related or opposing metaphorical concepts. However, the similarity between the classification of clusters with one and two prepositional constituents is that subordinate members do not have dual or multiple memberships in other domains. The examples below demonstrate this:

**EXAMPLE 1:**

*Superordinate: Prepositional Clusters*

*Type: one prepositional constituent*

*Syntactic Pattern* Adj/Adv + Prep

*Prototype/Generator member (Adj/Adv + of): afraid of*

*Abstract conceptual domain: concerned with emotional reaction or condition*

*Subordinate members of abstract conceptual domain: frightened of, scared of, proud of, jealous of, ashamed of, envious of, suspicious of*

*Grammatical Function: complement*

**EXAMPLE 2:**

*Superordinate: Prepositional Clusters*

*Type: one prepositional constituent*

*Syntactic pattern: Prep + Adj/Adv*

*Prototype/Generator member: in short*

*Abstract conceptual domain: concerned with measurement*

*Subordinate members of abstract conceptual domain: in general, in particular*

*Grammatical function: adverbial*
EXAMPLE 3:
Superordinate: Prepositional Clusters
Type: one prepositional constituent
Syntactic pattern: Noun + Prep
Prototype/Generator member: answer to
Abstract conceptual domain: concerned with answers, reactions and requests
Subordinate members of abstract conceptual domain: response to, reply to, solution to, reaction to, invitation to
Grammatical function: complement

EXAMPLE 4:
Superordinate: Prepositional Clusters
Type: one prepositional constituent
Syntactic pattern: Prep + Noun
Prototype/Generator member: by chance
Abstract conceptual domain: concerned with unpredictable events
Subordinate members of abstract conceptual domain: by mistake, by accident, by coincidence
Grammatical function: adverbial

4.5 Distinguishing between prototype member and basic meaning of a cluster

In the superordinate categorisation of prepositional clusters in the previous section
I used the term “prototype/generator member”. This however is not meant to reflect that
the “prototype member” has any special status but that it serves as what Rosch (1973)
terms, a “cognitive reference” point. In all cases, the prototype member functions as a
generator in which prospective subordinate members can be assessed based on the related
metaphorical concepts that the generator produced. Thus, the status of “prototype” given
to the generator member is only a token one.

I am aware that in the classification of the basic and extended meanings of the
prepositional clusters into the various lexical domains (see sections 3.5-3.6.2) I have also
used the term prototype meaning. However in this case I am referring to the basic or assigned spatial meaning given to a single preposition.

In short, where there is any reference made to the relationship between constituent parts of prepositional clusters in a superordinate categorisation, the term “prototype” or generator will be used. Thus, in a superordinate categorisation of prepositional clusters based on syntactic patterning and metaphorical concepts, any prepositional constituent could be a prototype or generator member. However, where there is any reference made to the semantic relationship between constituent elements of a prepositional cluster and the overall cluster itself, the term “prototype meaning” will be used.

4.6 Conclusion

The superordinate categorisation of prepositional clusters suggested in this chapter does not seek to replace all network representations for single prepositions. What it does offer is a more realistic representation of prepositional usage where prepositions are usually found in cluster combinations, rather than single words. By adding the criteria of metaphorical conceptual relationship, this categorisation is able to show a more interactive relationship between various prepositions and even related ones, by showing the referential and semantic differences between them.
Chapter 5: Conscious Investigation and Investigative-Oriented Learning in English Language Teaching

“It is not the strongest species that survive, nor the most intelligent, but the ones most responsive to change” (Charles Darwin)

5.0 Introduction and Investigative Aims

While previous chapters have concentrated on the lexico-grammatical behaviour and categorisation of prepositional clusters using corpus-based and cognitive semantic approaches, this chapter will make the leap across from linguistic analysis to classroom application. More specifically, in keeping with its applied linguistics focus, the aim in this chapter is to suggest the teaching and learning advantages of using linguistic principles in corpus analysis and cognitive semantics as an approach to activating Conscious Investigation in students. Conscious Investigation is a process which develops an awareness about language use that has been absent in communicative teaching. The discussion in this chapter will thus form Stage 5 of the study and will focus on three aspects:

- to discuss the limitation of Communicative Language Teaching (CLT) in providing relevant language empowerment skills of investigative thinking for language learners, in the present trend towards knowledge-based societies.
- to propose the development of Conscious Investigation – a process which activates a descriptive awareness about common structures and patterns of language use, together with idiomatic usages and choices. This awareness will induce a higher level of descriptive awareness about language than that raised by CLT.
to propose Investigative Oriented Learning (IOL), a methodology which applies the linguistic principles of corpus analysis and cognitive semantics, and is aimed at developing Conscious Investigation.

5.1 Terminology to be used and their Definitions

The terminology that will be used in this chapter is given in this section, together with working definitions. The terms that will be explained are language awareness, conscious investigation, investigative-oriented learning, reception and production. Some of these terms will occur in the latter part of this chapter but their definitions will be given now for ease of reference.

a) Language Awareness was defined in 1985 by the National Congress on Language in Education as “a person’s sensitivity to and conscious awareness of the nature of language and its role in human life.” Put simply, this definition can be rephrased as the descriptive knowledge about aspects of language mainly involving lexis, grammar, functions of language, differences between written and spoken language, history of language as well as knowledge about varieties of English. These aspects of language awareness forms the crux of communicative language teaching which is being practised in current EFL/ESL curricula. Extensive work carried out on language awareness can be found in Aplin (1981), Hawkins (1984), Donmall (1985), Carter (1990), Mittins (1991), Ellis (1992, 1997, 1998), van Lier (1992, 1997) and Wright and Bolitho (1993).
b) **Subsidiary Awareness** is a term used by van Lier (1995) to describe the ability to use language to communicate one’s basic needs so as to “get on with life”. I have used this term in quite the same way as van Lier and in this study, the term is meant to refer to a superficial awareness about some aspects of knowledge. This kind of awareness forms only part of the composition of descriptive language awareness as a whole, and is inferior in its attainment value because of its emphasis on language competence and not performance. Subsidiary Awareness can be used to characterise the traditional structural approach but is surprisingly also found in some popular language coursebooks which profess to use a communicative language approach (see report on coursebook survey in Section 6.2). I take the position that subsidiary awareness is the kind of knowledge that is attained by EFL/ESL learners from the elementary to the pre-intermediate stage.

c) **Conscious Investigation** is another term that I have coined and is an important term which is used frequently in this chapter. Conscious Investigation is a process which activates an awareness about aspects of language as well as language use. Thus, *Conscious Investigation could be defined as a process of developing an awareness about common structures and patterns of language use, based on idiomatic usages, choices and metaphoricity as used in natural authentic communication*. For example, if a student has developed Conscious Investigation, this implies that he or she has developed an awareness of some common recurrent syntactic patterns that occur in everyday communication such as metaphorical expressions composed of prepositional clusters e.g. *ins and outs, ups and downs, on and off*, etc. Also, the student has knowledge of how such metaphorical
expressions are not used literally but allusively and informally, particularly in countries where English is the native language.

d) **Investigative-oriented learning (IOL)** shares some similarity to task-based activities used in communicative language teaching (CLT), in its aim to encourage reflective thinking. IOL tasks however, differ from task-based activities, in that they extend reflective thinking to include experimentation and production, which are skills that can be transferred outside of the classroom. A further difference between IOL tasks and task-based activities is the monothematic nature of IOL tasks. All IOL tasks consist solely of analysing various examples of common language patterns to investigate their usage. The main resources employed are authentic data taken from corpora and various other sources of written and spoken English. As a result of the monothematic nature of the tasks, **IOL confines itself simply to the development of three skills; Noticing, Hypothesising and Experimenting**. These three skills are formed from an interface between formal instruction¹ (Present-Practice- Produce) of a particular grammatical pattern and observation of its usage. While IOL activities focus on completing all three stages of the skills development, task-based activities stop at the Hypothesis stage. A final note about IOL tasks is that they are both process-and-product-oriented, where the value of the task lies in both. This is because the results or answers (the product) given by the learners can demonstrate to what extent they have been able to apply the three skills of IOL (the process). Thus, an evaluation of the product can give an indication of how successful the process has been applied in the tasks.

¹ See Ellis (1992) and Fotos (1993, 1998) for details on empirical studies they have conducted on
e) **Reception and Production** are terms that I will use to refer to *implicit* and *explicit* knowledge about language respectively. By *implicit*, I mean the passive knowledge to comprehend, as a result of grammatical competence and knowledge of vocabulary. By *explicit*, I mean the active ability to perform some sort of communication, written or spoken, as a result of an awareness of socio-cultural situations and discourse types. The focus of Investigative-Oriented Learning (IOL) is unique in the sense that it is an approach which aims to encourage both reception and production. This is because IOL is a product-and-process-oriented approach (see Section 5.6) in which the results are used as an automatic evaluation of the extent to which the process of reception has been activated by the skills of Conscious Investigation. The nature of the skills – Observing, Hypothesising and Experimenting - thus encompass both reception and production skills. It will also be explained later in Section 5.2 that these skills developed from IOL will empower learners to comprehend (reception) and be able to use (production) unfamiliar expressions in English confidently, in native speaker contexts. However, whether or not they still want to use these unfamiliar expressions in their own daily language interactions becomes a matter of personal choice.

5.2. Knowledge-based societies and Language Empowerment

As a starting point of the discussion, I would like to highlight the issue of learner empowerment and the role of language towards its development. This issue is now gaining prominence as a result of a global trend around the world towards knowledge-based societies. In the following extract taken from the speech of consciousness-raising in language through formal instruction.
Professor Koh Tai Ann, Dean of the School of Arts, National Institute of Education in Singapore, the call to be competitively positioned in a knowledge-based society is clear:

"Language is an instrument of thought. It is an instrument of critical thinking. It is an instrument of intellectual analysis. It is an instrument through which you obtain knowledge and articulate a culture. As long as we understand the functions of language, we are adequately fitted for a knowledge-based economy at a certain high level."

(Professor Koh Tai Ann, quoted in the Straits Times, Singapore, July 25, 1999)

From the above extract, it is clear that possessing knowledge about language and its functions is important if one is to belong to a knowledge-based society. By "understanding the functions of language", I comprehend that one needs to have developed language awareness, which is consciousness about aspects of language, such as lexis, grammar, functions of language, differences between written and spoken language, history of language as well as knowledge about varieties of English. However, in this study, I am interested in focusing not on the development of all these aspects of language awareness which are taught in Communicative Language Teaching (CLT) but on a heightened awareness of language use and usage. This singular focus could provide a more holistic development of descriptive awareness about language. In order to develop this descriptive awareness, the skills have to be activated. Thus, in the case of language learners, they should be empowered with the skills of reflection, observation and meaningful communication. I have termed these skills, investigative-oriented skills or skills of
Conscious Investigation which consist of noticing, analysis and experimentation. Such skills enable the language learner to do three things:

a) be consciously aware of the unfamiliar usages of language they have heard or read in native speaker contexts,
b) investigate how these unfamiliar usages are employed in natural authentic communication, and finally,
c) experiment with these usages in spoken or written communication, so that they become familiar.

The skills of Conscious Investigation described above are considered language empowerment skills, because they will enable language learners to develop an awareness about common structures and patterns of language use, based on idiomatic usages, choices and metaphoricity found in natural authentic communication.

In the competitive arena of knowledge based societies, empowered learners who have developed the skills of Conscious Investigation will not be disadvantaged on linguistic grounds, because of unfamiliarity with particular language expressions used in countries where English is the native language. Empowered learners are still competitively positioned to look for jobs and business opportunities globally, if they are equipped with the skills of Conscious Investigation. These skills will help them to be consciously aware of, investigate and experiment how unfamiliar English expressions are used in native speaker contexts. Consequently they would be empowered to make informed choices in language for purposes of business, exchange of ideas, social interaction or social appropriateness.
5.3 Communicative Language Teaching (CLT) and Language Empowerment

While the previous section briefly mentioned the skills required for a more holistic descriptive awareness about language, this section will focus on the extent to which present language teaching and learning approaches do empower language learners with these kinds of skills. More specifically, this section will focus on the extent to which communicative language teaching does empower learners to be aware about common structures and patterns of language use, based on idiomatic usages, choices and metaphoricity is activated. Since I have used and will be using the term language empowerment quite frequently, it is apt that I define it in this section which deals with language pedagogy. By language empowerment, I mean the opportunities given to language learners to develop strategies and skills for learning language as it is used in a native environment, so as to be able to transfer these strategies or skills outside of the language classroom. Although much ELT literature on methodology in the last twenty five years has been devoted to Communicative Language Teaching (CLT) (see Munby, 1978; Brumfit and Johnson (eds.), 1979; Canale and Swain, 1979; Johnson and Morrow (eds.), 1981; Littlewood, 1981; Canale, 1983; Brumfit and Roberts, 1983; Savignon, 1983, 1991; Candlin, 1986; Larsen-Freeman, 1986; Nunan, 1988a, 1988b; Rossner and Bolitho (eds.), 1990; Tarvin and Yahya, 1991; Fortune, 1992; McDonough and Shaw, 1993; Thompson, 1996) the discussions that follow will instead centre on some criticisms about communicative language teaching (CLT) with regard to the issue of language empowerment:

• CLT does not pay explicit attention to grammar teaching and expresses teaching aims in terms of functions. Fluency is emphasised rather than accuracy. As a result
of this emphasis, language learners are not equipped with strategies or skills to interpret unfamiliar language usage patterns that are used in a native environment.

- CLT claims to use authentic language, i.e. language as it is used in a real context. However, in most cases the real contexts are text-book contexts and thus the language used cannot be authentic. In view of this, CLT can be criticised as failing to focus on aspects of language found in native English interaction, i.e. the various types of common idiomatic expressions used in native language interactions and the social situations in which they are contextually appropriate. For example, one type of idiomatic expression that is commonly used in informal situations in native language interactions is the prepositional cluster, e.g. *ups and downs, ins and outs, on and off.* This type of expressions are prevalent in native language use, but are only contextually appropriate in informal spoken English and not in formal written English.

- The grammar and vocabulary that students learn in CLT is developed from the functional or situational context, and the roles of the interlocutors. However, once again, the target language is not based on authentic language communication in a native English environment.

- CLT presents a variety of linguistic forms to realise one function. However, it fails to show the opposite: illustrating how one linguistic form can also possess a variety of functions in discourse. One common example of this, which is found in native language interactions, is the variety of discourse functions (e.g. agreement, convergence, irony, etc) performed by the common English expression *of course* which is not taught to language learners.

- In CLT, the target language is a vehicle of classroom communication and not an
object of study. However, the refusal to make the target language an object of study desensitises language learners as active observers of real language use, prevents investigative thinking about unfamiliar language patterns and experimentation with them.

- The view in CLT that errors are tolerated as a characteristic outcome of developing communicative skills restricts the range of linguistic ability of learners to merely that of natural communication. This kind of view produces language learners who produce inaccurate grammar and inappropriate vocabulary because they are not corrected in the classroom.

From the criticisms given above, it is clear that the general aim of communicative language teaching (CLT) is to enable language learners to develop communicative skills which they can use to get on with their lives, make sense of the world and conduct their daily business. However, it is my belief that the transference of these kinds of communicative skills outside of the classroom, is limited only to language survival in an unfamiliar native language environment and develops “subsidiary awareness” (see van Lier, 1992). In short, CLT does not prepare students to become and remain competitively positioned in any knowledge-based society from a linguistic perspective.

5.4 Communicative Language Teaching and Language Patterns

Although I have described various criticisms of CLT, it is also important at this point to make clear why CLT is not a natural progression to the development of an awareness about language patterns which give rise to
idiomatic and metaphorical language use. It is undeniable that because CLT focuses on fluency in natural communication, the terminal aims of this approach are to develop particular aspects of communicative competence. These aspects are grammatical competence, sociolinguistic competence, discourse competence and strategic competence (see Savignon, 1983). Savignon built on Hymes' (1971) previous work on linguistic competence and expanded it. Thus, in her work she defined grammatical competence as a kind of restricted linguistic competence to do with knowledge about rules of grammar. Sociolinguistic competence is knowledge about the social context; roles of the participants, the topic and functions of language, and it is in the social context that appropriateness in language can be assessed. Discourse competence refers to knowledge about cohesion and coherence at the textual level. Finally, strategic competence is the knowledge of how to make use of language to get one's meaning across by compensating for incomplete knowledge of rules or due to factors like inattention, noise, tiredness, etc.

While the four kinds of competences described are important in their linguistic achievements, however, they are still concerned with negotiating meaning for purposes of natural communication in everyday interactions. It is also natural to assume that one simply needs to build on existing knowledge about aspects of language (e.g. form, meaning, patterns, etc), sociolinguistic and discourse to develop an awareness about language patterns which give rise to idiomatic and metaphorical language. Such an awareness relies heavily on Conscious Investigation where the powers of observation, analysis and experimentation are valued. However, the issue at hand is not about the kinds of knowledge required for Conscious Investigation, but rather the approach used to develop it. Communicative Language Teaching as a
pedagogical approach does not teach language learners to question or investigate how language is patterned to form idiomatic language and how idiomatic language can be analysed for meaning. The limitation of CLT to promote Conscious Investigation in its learners requires, hence, an approach which applies a questioning slant. The approach thus taps on the existing knowledge in language learners about aspects of language and extending this knowledge to include investigative skills such as noticing, hypothesising and experimenting.

In short, the approach will focus on the process of developing these investigative skills by emphasising language use. Simple instances of language use such as common language usage patterns will be employed in this approach, with the aid of authentic data. I would also like to suggest that an essential and useful resource of authentic data would be corpus data for the following reasons:

- teachers can deal with authentic material and not text-book examples.
- they can present as much data as they require and quickly, from commercially available or on-line corpora (e.g. BNC, COBUILD) for use in the classroom. The data collected can be those that show patterns of real language use. The importance of using data from corpora based on authentic language communication cannot be overstated because they are based on real contextualised examples of written and spoken language and not invented examples drawn from the intuitions of coursebook writers.
- data can be sequenced and graded to suit the linguistic level of the learner in the preparation of tasks involving the use of investigative skills.
5.5 Teaching and Language Corpora: The debate

While the previous section mentioned briefly the use of corpora as a resource for teaching because of its value as authentic data, there has been much debate surrounding the use of corpora in language teaching. This section will discuss some points highlighted by proponents and opponents of using corpora in the language classroom.

The issues raised in the debate have focused on the value of the direct use of corpora in language teaching in three ways:

- Open-ended supply of language data
- Promoting discovery-based learning
- Customised language tasks for learners

Leech (1997) and Aston (1997) discuss the first point above emphasising the value of large and accessible supplies of language data which can be exploited to devise corpora as part of materials development in the delivery of computer-delivered learning packages. Besides the use of general-purpose corpora such as the BNC and COBUILD, Leech proposes the use of corpus data in developing LSP (Language for Specific Purposes) corpora as well as other sublanguages such as computer manuals, applied sciences, language engineering, etc. He highlights the value of learning the linguistic characteristics about language varieties through these kinds of specific corpora, especially for people wanting to specialise in various fields. Thus lexical frequencies, collocations and characteristic grammatical structures are beneficial in a better understanding of a particular kind of language variety. Aston (1997: 52) also supports Leech's call for exploiting large supplies of language data this time for use in the classroom. Aston focuses on the value of newspaper corpora for use in “selecting
texts with particular characteristics and smaller contexts for illustrating a particular linguistic phenomenon". The rationale behind Leech and Aston's proposal to employ corpus data for teaching purposes follows from Sinclair's (1991a) claim that learners would be able to reproduce authentic language behaviour from naturally occurring texts. The larger the amount of naturally occurring texts, the better the evidence for a more accurate description of the characteristic features of language. Sinclair reiterated this claim in 1997 when he said:

"In order to uncover the regularities of structure, to identify, if possible, exactly what the realisations are of meaningful choices and to give precise shape to all the linguistic categories of linguistic description, it is necessary to assemble a large number of putative instances of each phenomenon. Given the well-known distribution of word tokens in a language, a large corpus or collection of texts is essential to provide a body of evidence" (Sinclair 1997:28)

The implication of using large amounts of corpora for language teaching is that learners can use the evidence in corpora for introspection. Introspection is seen to be a behaviour desired from learners where learners are viewed as active participants of language from a textual and discoursal perspective.

Leech (1997), Aston (1997) and Sinclair's (1991a, 1997) views that large supplies of corpora would help create the desired language behaviour of learners as active participants in language are challenged by Cook (1998) and Widdowson (2000). Both linguists assert that large amounts of computer data cannot replace the complex mental processes that occur in meaning interpretation, organisation and classification of language in a learner's mind. Cook highlights this point when he says:
"...some corpus linguists (e.g. Sinclair 1991a, Stubbs 1996) overreach themselves. They talk as though the entire study of language can be replaced by the study of their collections, and as though all important insights only from automatic searches of their data and nowhere else. If the traditional concerns of linguistics – language in all its cultural and psychological complexity – could be replaced with a neat computer bank of data, life would be much simpler..." (Cook 1998:57)

In essence, Cook's criticism above highlights the point that corpus analysis, tries to present evidence as fact. However, even with large amounts of corpora, corpus analysis can only give a partial description of language and this view is supported by Widdowson (2000). In an article, Widdowson emphasised a serious limitation of corpus linguistics:

"For one thing, since what is revealed is contrary to intuition, then (corpus linguistics) cannot represent the reality of first person awareness. We get third person facts of what people do but not the facts of what people know, nor what they think they do: (Corpus Linguists) come from the perspective of the observer looking on, not the introspective of the insider" (Widdowson 2000:6)

The criticisms of both Cook and Widdowson highlighted above can be summarised to the limitation of corpus linguistics in being able to give only a partial description of language and ignoring all other aspects of culture and psychology, being only concerned with production and not reception. Inevitably, one implication of such a limitation brings the debate to the point about language prescription. Many opponents against the use of corpora in language teaching raise questions about using native-speaker models (e.g. southern British English or American English) as evidence of
attested language use to be taught to language learners, citing linguistic imperialism or a conspiracy to impose English globally as reasons (see Prodromou 1990, 1996, 1997; Rampton 1990; Phillipson 1992, Cook, 1998). Cook (1998) and Widdowson (2000) highlight also the neglect of corpus linguists to consider appropriacy in contexts and providing choices to learners. They emphasise the need to give learners choices and opportunities to make their own impact in language as long as the expressions they use are appropriate in a particular context. This is more important than uttering memorised lexical phrases which are contextually inappropriate. On the other hand, proponents such as Higgins and Johns (1984), Johns (1988, 1991a, 1991b, 1993, 1997), Tribble (2000), Tribble and Jones (1990), Aston (1997), Carter (1998a), McCarthy (1998) have defended the use of corpora in language teaching since they are evidences of discoursal, socio-cultural and psycholinguistic insights which offer direct applications and even restructuring of syllabuses and materials. In defence to using native-speaker models such as English as evidence of attested language usage, Carter (1998a) is of the view that because most fixed expressions especially in English are culture bound, there is a need to keep "cultural particulars" (Carter 1998a: 50) intact so as to promote an awareness of language in terms of sensitivity and cultural understanding.

The points raised above about language prescription with regard to ideology, disregard for contextual appropriacy and learners' needs as well as corpus evidence being reflections of various linguistic insights into language behaviour is actually a debate about whether a corpus-driven approach which is used for research is suitable for the classroom. There are of course two schools of thought on this. Sinclair (1997) presents some precepts for language teachers based on corpus principles he uses in his research. One precept is to Present real examples only. The rationale behind
presenting only real examples is because in the past coursebook writers have always relied on their intuitions rather than observing authentic language and this point is supported by Carter (1998): "...the language of some coursebooks represents a 'can do' society, in which interaction is generally smooth and problem-free..." (Carter 1998: 47). "Sinclair however acknowledges that his precepts are based on purely descriptive data: "They are not concerned with psychological or pedagogical approaches to language teaching" (Sinclair 1997:30). However, as Widdowson (2000) points out: "...it seems obvious that if (the precepts) do not take pedagogic considerations into account, they cannot reasonably be taken as pedagogical precepts..." (Widdowson 2000:9). Many corpus-driven learning approaches have been designed by Aston 1995, 1997; Higgins and Johns 1984; Johns 1988, 1991a, 1991b, 1993; Tribble and Jones (1990); Tribble 2000, etc. All these materials are clearly indications of the designers’ reflections about the value of a corpus-driven approach to pedagogy in which the focus is to match theory with practice and to "fashion pedagogic reality to fit the descriptive findings" (Aston 1995). Practically all of the corpus materials designed concentrate on an approach in which discovery-based learning is valued and language awareness with regard to sensitivity about language use is activated. However, as discussed previously, Widdowson (2000) is of the view that the corpus-driven approach to teaching suggested by Sinclair and the designers of corpus learning materials are not realistic. Widdowson feels that the corpus-driven approach disregards "real world problems" in language teaching and learning and that "language problems can be solved by linguistic solutions" (Widdowson 2000:5).

While supporting the use of corpora in language teaching and learning, McCarthy (1998) does however highlight a problem of using a corpus-driven approach to teaching:
“It must also be constantly remembered that computers may ‘have knowledge’ of what has been spoken, but cannot use that knowledge. Proficient users of a language may not be so good at reflexive ‘knowing’, but use their knowledge whenever they speak. It is thus only when good observers of language combine their talents with the display and analysis of data by the computer that the optimum gains can be made.” (McCarthy 1998: 23)

McCarthy’s position is supported by Gavioli (1997) who has stressed that it is not enough just to leave the students to interpret the data and expecting them to analyse or introspect language use, regularities of language, etc. Students need to be trained how to interpret and analyse the data presented. (I have taken up this issue in Section 5.6 about the need for Investigative-Oriented Learning).

Opponents of the corpus driven approach to language teaching have also cited that using teaching learners about frequent occurrences that occur in a language are not necessarily the most interesting or more importantly, what learners want to know. Cook (1998) and Widdowson (2000) are of the view that teaching and learning what native speakers experience as language users disregards the needs and wishes of language learners. According to Cook,

“Even if appearing native-like were accepted as a goal of language learning, it would not follow that frequency and desirability are the same......Within the native-speaker community, it is often the infrequent word or expression that is most powerful and most communicatively effective, and therefore most sought after......Among native speakers it is unusual language that is valued. Should non-native speakers be treated differently” (Cook 1998:61):
Cook proposes that since it is not possible to teach everything about language, it is thus the duty of teachers to select the language use which the learners want to know. Widdowson (2000) agrees with Cook’s suggestion and prefers that the classroom becomes a place of created or devised contexts to activate learning so that “what is being taught and learnt becomes the subject and not the language as experienced by native speaker users” (Widdowson 2000: 8).

The issue of devising contexts appropriate for learning to take place is an important one because while corpus analysis purports to present authentic language use, the data is only authentic at the time it was collected. After that, the data becomes a static or fixed product which is decontextualised language. If one were to present such data in the classroom, recontextualisation becomes necessary for the language to be regarded as authentic but then the conditions of recontextualisation are different from those of the original text. Widdowson (2000: 7) challenges the authenticity of such recreated texts and finds it doubtful if such texts can be motivating for learners if they have to make the texts “real” themselves in order to engage in the process of analysis (see Section 6.5.1 for a discussion of a similar problem encountered by foreign learners of English in analysing corpus data using the IOL approach).

A final point which needs to be highlighted in this debate is the issue of different pedagogic methodologies used to teach English. While corpus based teaching promotes the value of learning language in chunks rather than as single words based on Pawley and Syder’s (1983) study about native-like selection and native-like fluency, Prodromou (199), Rampton (1990), Phillipson (1992), Cook (1996) and Widdowson (2000) criticise such a view. They are of the opinion that it is unrealistic to expect non-native speakers of English to develop native-speaker
language behaviour since most of non-native speakers of English, for example, will never have native-speaker interactions anyway. Furthermore, if many culturally diverse traditions in pedagogy are not in the habit of teaching strategies of native speaker acquisition – teaching language in chunks or viewing vocabulary and grammar as separate entities – which are precepts of corpus analysis, such teaching strategies can have a detrimental effect on language learners from such diverse traditions. As Cook (1998) and Widdowson (2000) highlight, there is no harm if language learners continued to view language as composed separately of grammatical structures and vocabulary words or as a series of “slot-filling words” (Cook 1998: 60) if these strategies helped them to express themselves and communicate their needs in English. Cook also pointed out that the strategies of learning deeply ingrained in learners as a result of how they have learnt English in their cultures might be more effective strategies in storing the phrases language learners have learnt in their mental lexicon rather than reorganising their mental lexicon to accommodate “lexical chunks”.

While there are valid criticisms raised in the debate about the use of corpora in language teaching, there are, at the same time, equally sound arguments for its use in the classroom. This chapter will elaborate further on the advantages of a corpus-driven approach in instilling language awareness about patterns in language. However, many of the criticisms there were raised earlier will be brought up again in the next chapter where corpus material are put into practice for language teaching in a small classroom study (see Sections 6.5.1-6.5.2). For the moment, however, I will concentrate on how a corpus-driven approach in teaching can be used to develop investigative skills in observing patterns of language and meaning usages.
5.6 The need for Conscious Investigation and Investigative-Oriented Learning (IOL)

In Section 5.4, my criticisms about the limitations of CLT to promote Conscious Investigation makes it necessary to address this issue in greater depth.

Before embarking on the discussion, I would like to make my position clear from the start that I am not advocating the abolition of CLT in language classrooms. This move would be foolish and detrimental to language teaching and learning for the simple reason that the development of Language Awareness (LA) through CLT, must always precede that of Conscious Investigation. While it is true, that CLT at best, develops fluency and accuracy based on natural communication, and disregards the development of observational and analytical skills, the knowledge of the aspects of language taught in CLT, is however, the first foundation on which Conscious Investigation is built.

What I am advocating in this section is a type of teaching and learning approach called Investigative-Oriented Teaching (IOL), which heightens the development of language awareness skills developed in CLT. Investigative-oriented learning (IOL) shares some similarity to task-based activities used in communicative language teaching (CLT), in its aim to encourage reflective thinking. IOL tasks however, also include experimentation and production skills, which are thinking skills that can be transferred outside of the classroom. The main resources employed are authentic data taken from corpora as well as various sources of written and spoken English. As a result of the monothematic nature of the tasks, IOL confines itself simply to the development of three thinking skills: Noticing and Hypothesising and Experimenting while task-based activities stop at the Hypothesis stage. A final note about IOL tasks is that they are both process-and-product-oriented, where the value of
the task lies in both, because the product would be an automatic evaluation of the process. As mentioned earlier in section 5.1e, this is because the answers (the product) given by the learners would demonstrate to what extent they are able to apply the three skills of IOL (the process). Thus, an evaluation of the product would give an indication of how successful the process has been applied in the tasks.

Despite the similarities and differences between IOL and task-based activities, the IOL approach is unique in the sense that it need only utilise basic knowledge about language, mainly aspects to do with lexis, grammar and simple communicative functions, and develops this knowledge into the investigative/questioning skills required for Conscious Investigation. I have termed this basic knowledge about language as Subsidiary Language Awareness. Although Subsidiary Language Awareness might be considered inferior in its attainment value because of its emphasis on competence and not performance, there are advantages for using it as a basic entry point for IOL:

- the IOL approach becomes suitable for teaching investigative questioning at lower levels of linguistic ability. A series of graded tasks will ensure that language learners from intermediate to advanced levels can benefit from this approach.

Besides the advantage of using of Subsidiary Language Awareness as a basic entry point, there are other advantages of IOL which are listed below:

- IOL has the flexible advantage that it can be integrated into CLT or can exist as an individual approach in itself. Thus, it can be adapted to fit communicative task-based activities or employed in separate lessons dealing with study skills or investigative learning. The flexibility of the IOL lends itself to a better accommodation of learner needs.
- IOL does not disregard the learner's existing knowledge about aspects of language, but rather, builds on this knowledge, and extends it to develop questioning skills for Conscious Investigation.

- IOL provides learners with authentic examples of unfamiliar English usages taken from real language interactions so that comparisons can be made with the learners own language, cultural and world knowledge or experiences. Depending on the level of the learner, awareness of these differences can later be heightened to empower him or her to make informed choices of language use, according to the situation. (For further discussion, see Carter, 1998a; McCarthy, 1998; McCarthy and Carter, 1994, 1995; Tsui, 1994)

The most important language payoff gained by using the IOL approach is the development of Conscious Investigation\(^2\). Conscious Investigation encompasses an awareness about aspects of language as well as language use. Thus, it can be defined as a process of developing an awareness about common structures and patterns of language use, based on idiomatic usages, choices and metaphoricity from natural authentic communication. For example, if a student has developed Conscious Investigation, this implies firstly that he or she has an awareness of some common recurrent syntactic patterns found in everyday communication, such as metaphorical expressions composed of prepositional clusters e.g. ins and outs, ups and downs, on and off, etc. Also, the student has some awareness of how such metaphorical expressions are not used literally but allusively and informally, particularly in countries where English is the native language.

\(^2\) van Lier (1995) uses the term focal awareness to describe an ability to transcend the use of ordinary and mundane language necessary for us to get on with our lives, work and make sense of the world. However, I find this term not able to capture the spirit of conscious investigation that is being proposed in corpus based/cognitive semantic approaches to language learning.
To conclude this section, suffice it to say that Conscious Investigation is an awareness that needs to be developed to provide language learners with a more holistic descriptive knowledge about language. The diagram below summarises the argument and shows two parallel but related continua. One continuum shows the position of Conscious Investigation in relation to Language Awareness. Thus, on the lowest end of this continuum, there is Subsidiary Awareness and on the highest end, there is Descriptive Language Awareness. The second continuum shows the pedagogical approaches related to developing the above kinds of awareness. Here, we have Communicative Language Teaching (CLT) as the first foundation approach, followed by Investigative Oriented Learning (IOL).

In the diagram, Investigative-Oriented Learning (IOL) occupies a position preceding that of CLT, as one of the higher order components leading towards Descriptive Language Awareness.
5.7 Principles of Investigative-Oriented Learning (IOL)

This section will deal with an explanation of some of the principles involved in IOL. These principles will deal with issues of methodology, tasks, linguistic level of students and the role of the teacher. The following subsections will explain each of these issues in further detail.

5.7.1 Methodology

The methodology used in IOL follows a questioning slant. It involves questioning how particular language usage patterns mean and are formed. Thus, the focus of IOL is mainly on aspects of lexis, grammar, patterns, idiomatic usages and metaphoricity based on natural authentic communication. The approach endeavours to develop particular, investigative-oriented skills such as noticing, hypothesising and experimenting.

The methodology used in IOL to develop the investigative-oriented skills referred to is a linguistic one because it employs linguistic principles of corpus linguistics and cognitive semantics. These principles are utilised when investigating how particular language usage patterns mean and are formed. In a sense, the IOL approach, makes the target language an object of study and not a vehicle of communication as in CLT. The linguistic principles of corpus linguistics and cognitive semantics that are applied in IOL, are the following:

- Principles of collocation, colligation, semantic preference and prosody found in Corpus Linguistics to observe how common idiomatic expressions are formed syntactically and to analyse their meaning usages. Examples of tasks illustrating these principles is found in Section 5.6.3a
Familiar or common metaphorical concepts are used to interpret meanings and usages of idiomatic expressions. This is a linguistic principle used in Cognitive Semantics. Examples of tasks illustrating this principle can be found in section 5.6.3b.

Sections 5.6.3a and 5.6.3b will illustrate how linguistic principles of analysis taken from Corpus Linguistics and Cognitive Semantics can be applied to IOL. In these sections I will also show how the application of these linguistic principles can be tailored, sequenced and graded to suit all levels of learners. Before I proceed to these sections however, I would like to discuss in the next section the relevance of using prepositional clusters in IOL tasks.

5.7.2 Teaching Material: Prepositional Clusters and IOL

In this section, I would like to suggest what kinds of language usage patterns can be suitable foci for IOL tasks. It is relevant at this point to emphasise once again that the main aim of IOL is to develop investigative skills. IOL relies on a questioning approach towards lexis, grammar, patterns, idiomatic usages and metaphoricity based on natural authentic communication. The focus of IOL tasks is thus more weighted towards knowledge about descriptive aspects of language. It encourages learners to develop analytical skills for investigating common patterns of language usage in everyday communication.

A common pattern of language usage found in English that I have chosen to use as teaching material in IOL tasks is the prepositional cluster. The theoretical perspective of how and why prepositional clusters can be regarded as demonstrating a particular language usage pattern, by virtue of their lexico-grammatical behaviour has
already been dealt with in Chapters 2 and 3. It remains for me to justify my reasons for choosing prepositional clusters as suitable examples of study in IOL tasks, from pedagogical perspectives.

One of the first reasons derives from my observations as a language teacher about the absence of prepositional clusters in coursebooks as a common language usage pattern. Furthermore, the predominance of prepositional clusters in language (written and spoken) used metaphorically and how EFL/ESL language learners struggled to make sense of their meanings as a result of this absence was another factor that urged me to use them as teaching material for IOL tasks. The common use of prepositional clusters in a native English environment is obvious in the frequency with which they occur. Some spoken and written examples of these clusters are given below; they were taken from the television and local newspapers in the space of one week.

- "Although links between on and off screen violence have yet to be proven, we cannot deny that watching too much fictional brutality can desensitise the viewer to any real-life horrors..."
  (Dr Marian Watts, child psychologist, in an interview with Channel 4 News, about the effects of the increase in television violence on children, 16th August 1999)

- "Nottingham’s down and outs were having a cuppa with Housing Minister Hilary Armstrong last week..."
  (Nottingham and Long Eaton, Topper, local newspaper, 18th August 1999)

- "The doctors are not only working in the hospitals but are also out and about the disaster area, treating victims..."
  (Julian Tapper, reporter for BBC World News, in an interview about the earthquake situation in Istanbul, 19th August 1999)

- "I’ve got a new cell-mate... He’s okay I guess... been in and out of jail a few
times...but he's alright...."

(The TV character "Matt" from EastEnders, BBC 1, 23rd August 1999)

Besides their pervasive use in daily British life prepositional clusters are also used very frequently on the Internet in various types of written texts – electronic mailing lists, on-line advertisements, social messages, etc. With the Internet becoming so much a part of the information age and English being by far the most widely used language on the Internet, users of the Internet have to employ English to communicate with one another. This has resulted in the language of the Internet tending towards the informal where the use of idiomatic English is prevalent. One implication of this is that the use of prepositional clusters in everyday language interactions will not be an idiomatic aspect confined only to British English as other English language users of the Internet virtual community (native and non-native speakers of English) will soon acquaint themselves with their use. The terminal aim of IOL is thus to enable non-native speakers of English to develop an understanding of how idiomatic English expressions like prepositional clusters which are unfamiliar to them, mean and are used in communication. However, this does not necessarily mean that they must make use of these expressions if they want to communicate in English. The main aim is to ensure that they are not put off from participating and sharing information by their unfamiliarity with the English idiomatic expressions used by the Internet virtual community. How they choose to express themselves in English, with or without the use of prepositional clusters is then a matter of personal choice.

Below are some examples of two prepositional clusters (down and out and ups and downs) taken from the web site http://www.alltheweb.com. It was obvious from the massive numbers of texts which these two clusters were found in, that
prepositional clusters are very frequently used in English language interactions on the
Web in a metaphorical function. The examples below show a variety of texts – emails
from electronic mailing lists, social messages, sports news, book reviews, instructions,
financial forecasts, business news, advertisements, internet surveys, etc:

down and out:
9889688 documents found

1. CNET.com - News - Personal Technology - Is troubled Microworkz down and out

   CNET | News | Hardware | Downloads | Trends | Games | Jobs | Auctions | Prices | Tech Help Free Email Search Advanced Tips In NewsAll CNET The Web
   Click here for professional services applications. CNET : News : Personal
   Technology : Story

2. Really down and out

   Really down and out [ Follow Ups ] [ Post Followup ] [ MhoBBS ] [ FAQ ]
   Posted by Mopap on September 19, 1999 at 18:03:29: A little while ago I
   bitched about my cable isp. These days, it's gotten so bad that I get pj'ed at 4
   in the morning. I'm giving the
   http://mhotown.princeton.edu/wwwboard/messages/753.html

3. Re: Really down and out

   Re: Really down and out [ Follow Ups ] [ Post Followup ] [ MhoBBS ] [ FAQ ]
   Posted by Mopap on September 20, 1999 at 23:54:06: In Reply to: Re: Really
down and out posted by Morgoth on September 20, 1999 at 18:16:26:
   Anyone want to buy a wife? Follow Ups
   http://mhotown.princeton.edu/wwwboard/messages/759.html

4. Another Owl Down and Out

   Another Owl Down and Out [ Follow Ups ] [ Post Followup ] [ Rice Owls Sports
   Forum ] Posted by Guvmint Owl on November 16, 1999 at 09:11:45:
   According to the Chronicle today, DB Kinsley Barrett lacerated a kidney In
   Saturday's game. Its surgical removal
   http://www.owlzone.com/bbs/messages/2224.html

5. Wheel play: batter puts down a sacrifice bunt with runners on first and
second, the defense goes for the force out at third

   Wheel play: batter puts down a sacrifice bunt with runners on first and
second, the defense goes for the force out at third Don't even think about it!
   Catcher: Tell the infielders where the throw is going. (Catchers must
   remember that no one is covering
   http://nt2.hadar.ideal.se/dove/dove1/baseball/frames/wheel.html
6. **Down and Out In Thousand Oaks**

Since the Ordinances for the Homeless of Thousand Oaks first came to the table, I have heard so many differing views on the subject. We would like to know your opinion on this issue. SEND YOUR VIEW Here are some opinions that we came across: Well, Thousand
http://als.to/tocity/mvhomeless.htm

7. **Chi-Chi's down and out, Chinese restaurant in**

POSTED: Friday, December 3, 1999 Chi-Chi's down and out, Chinese restaurant In
By PAT KINNEY Courier Business Editor CEDAR FALLS Mexican cuisine will be replaced with Chinese after a change in tenants in a building at Black Hawk Village's Chi-Chi's Mexican.

**ups and downs:**

114296 documents found

1. **The Ups and Downs of the Akron Hill**

THE UPS AND DOWNS OF THE AKRON HILL Derby Tech - September, 1985 by James H. McElhiney Every year there is concern with lane equality. To understand why there is a problem, let's look at the construction of the hill and the effects of sun and shade on its
http://207.242.75.40/derbtech/upsdowns.htm

2. **Gwent TEC - Ups and Downs in the Next Decade**

Ups and Downs in the next decade Forecast Change in number of jobs 1995 - 2005 Home | Develop Your People | Develop Your Business | Starting A Business | Opportunities For Young People | Opportunities For Adults | Education Business Partnerships | Gwent http://www.gwent-tec.co.uk/ups.html

3. **Daniel Stenberg - Hacking ups and downs**

General: Main page Currency Download Files Experience / CV Friends Hacker Horizon Microsoft Open Source Sources Travel Unix Projects: cURL FrexxEd Dancer FPL Hypermail IRC Research libcurl Mail2sms Netracer spam.pl Triacle Trio Hackers Are The Good People
http://www.contactor.se/~dast/hackers.html

4. **SOH book: Richard Schusterman 'The Ups and Downs of Urban Life**

The Ups and Downs of Urban Life by Richard Schusterman© Publication SOH States of Humanity Alex Vermeulen, 1999© Webdesign WITHARTMAN amsterdam Contents Close
http://www.syndicaat.org/soh/book/rs.html
5. **Bücher Edwards - Secrets of Self-Employment: Surviving and Thriving on the Ups and Downs of Being Your Own Boss**


6. **Epinions.com - UPS has its ups and downs**

Join Now | Login | Top | Help Top > Services > Household > Postal Services > UPS > UPS Ground Reviewed Item UPS Ground rated by 30 people. Average Rating: top77 About The Author Epinions ID: jammmalMember Profile Click here if you trust jammmal's opinions http://top77.epinions.com/srvc-review-52CD-804B002-386AE4F6-prod1

7. **Ups and Downs of Love**

Ups and Downs of Love [ Follow Ups ] [ Post Followup ] [ barbaramandrell.com's WWWBoard ] [ FAQ ] Posted by Claudene Christopher on December 20, 1999 at 23:24:32: Please advise If anyone knows where I might find anew or used copy of the tape Ups and Downs http://www.barbaramandrell.com/wwwboard/messages/127.html

8. **Ups and Downs at the Toshiba Tennis Classic-Anne Dolce-Exposure**

UPS AND DOWNS AT THE TOSHIBA TENNIS CLASSIC by Anne Dolce Photo by Janella Rachal The 1998 WTA Toshiba Tennis Classic held in Carlsbad, California was a myriad of ups and downs - for the players, the fans, and the tournament itself. Held at the luxurious http://www.dreamin.com/adupandd.htm

In fact, Widdowson (1979; 142) was among one of the first linguists to make a similar observation about the pervasive use of metaphor in everyday language interactions. He also delivered a warning about the dangers to language users if non-metaphorical language were allowed to exist:
"metaphor surely lies at the heart of everyday communicative behaviour. What seems to be
abnormal is non-metaphorical communication, a strict conformity to rules. Indeed, if
language users were strict conformists, their language would presumably lose its capacity
for adaptation and gradually fossilise." (Widdowson: 1979; 142)

The above examples are indicative of the way in which prepositional clusters can
be considered part of the pervasive use of metaphor. It is thus beneficial, from a macro
perspective that linguists attempt to apply or "operationalise metaphor" (see Cameron and
Low, 1999) not just for theoretical research as Cameron suggests, but in service of
language pedagogy. Prepositional clusters thus could be used in such a service.

Finally, besides their status as a typical type of language usage pattern in
English showing metaphorical meaning, another impetus in my decision to choose
prepositional clusters for IOL tasks was my curiosity to experiment with students'
existing Subsidiary Language Awareness. The awareness I am tapping into deals with
language structures, in particular grammatical forms such as prepositions. I would like
to extend and heighten students' awareness about prepositions, especially to enlarge
their knowledge about the syntactic patterning, collocation properties of prepositions
and how their deictic functions could become metaphorical ones. The enlargement of
this kind of knowledge could be attained through IOL tasks of Noticing, Hypothesising
and Experimenting. Students could thus practice observing how
prepositions may form common idiomatic phrases composed of only prepositions
from corpus data. They could also be shown how these idiomatic phrases are
commonly used in everyday language, written or spoken, and have nuances and
metaphorical allusions that inauthentic material used in coursebooks are not able to
capture. By developing the investigative skills mentioned above, I hope to establish
the prospect that students would be ready to engage, not only as fluent communicators of a language, but also as thinking observers and assessors of language use. They would thus be empowered to make personal decisions based on their knowledge of natural language use together with their social orientations.

5.7.3 IOL tasks and Linguistic Level

In section 5.5, I briefly mentioned that the main advantage of IOL was that it made use of learners’ existing knowledge about language and required only Subsidiary Language Awareness (knowledge about lexis, grammar and simple communicative functions) as a basic entry point. The following subsections will illustrate how teaching tasks designed on the linguistic principles of Corpus Linguistics and Cognitive Semantics and used in IOL can encourage investigative skills of Noticing, Hypothesising and Experimenting for learners of different linguistic abilities.

5.7.3a Applying linguistic principles of Corpus Linguistics to IOL

This section will demonstrate how Corpus Linguistic principles of collocation, colligation, semantic preference and prosody can be applied to IOL in order to develop investigative skills of Noticing, Hypothesising and Experimenting. Below are two sample tasks which have a commentary section explaining how the tasks can be taught to learners of different linguistic levels:

**TASK 1:**

A) **Prep+and+Prep:** e.g. *ups and downs, up and down*

Read the following extracts and **guess the meanings** of *ups and downs* and *up and down*. What is the **grammatical function** of both?
“To be fair, he tried to understand, but he (like most men) wanted a relationship similar to his parents’, where the woman would be there for him in the evenings and prepare his dinner, listen to the ups and downs of his day. When I wasn’t back, or I was bent over a computer piece, he felt unloved and unwanted…”

The Express, Sunday, September 13, 1998

“...We decided to forget about the third canister and made off across the cornfield at speed, the jeep bouncing up and down on the very uneven surface...”

Data from the British National Corpus, Code: A61 250

“...The trains, running up and down from London to Stanmore and back, could only be seen through the foliage as a series of silver flashes, but their singing rattle made a constant background music...”

Data from the British National Corpus, Code: EDN 1786

“...We hate to detain our most welcome guests, especially when they have come from so far. He looked Anna May up and down as if his mind could do with a good Chinese laundring. I have urgent business to attend to...”

Data from British National Corpus, Code: GVL 92

Comment:

This is a simple task which is suitable for beginner to intermediate learners. Students are encouraged to make use of the skills of noticing and hypothesising. They start by observing how the common idiomatic expressions up and down and ups and
downs differ from one another in terms of meaning usages and grammatical functions. In order to do this, they have to observe the kinds of verbs that collocate with each of the idiomatic expressions as well as make use of their knowledge about grammar to observe the grammatical functions of each. Students then make use of their observations and hypothesise about the meaning usages and grammatical functions.

**TASK 2:**

B) Prep+Prep: e.g. *round about*

Some of the meanings of the prepositional cluster *round about* are given below, together with their grammatical constructions which make up the meanings.

**Meaning 1: round about (to show approximation in time and location)**
e.g. *Round about four o’clock in the afternoon, he would sometime forget Morris.*

...we returned by the water side *round about the North-point...*  
(Data from BNC, G12 3046 and COBUILD)

**Representation of Form and Meaning:**

1) Approximation

![Diagram]

Round about  

**Meaning 2: round about (vicinity)**
e.g. *...there are places to stay round about where they were...* (Data from CANCODE)

**Representation of Form and Meaning**

2) vicinity

![Diagram]

Round about

**Meaning 3: round about (surround and protect)**
e.g. *...a good mud wall to be cast up round about the factory...* (Data from COBUILD)
**Representation of Form and Meaning**

3) **Surround**

\[
\begin{array}{c}
\downarrow \\
dynamic \ verb \\
\uparrow \\
object \\
\end{array}
\]

\[+ \ \text{round about} +\]

**Question:**
There is 1 other meaning of *round about*. Try and guess its meaning from the data given and draw a diagrammatic representation of form and meaning, to demonstrate its usage.

...turn left after the *round-about* at the intersection...
...just after the *round-about intersection* with the B3274

(Data from COBUILD and CANCODE)

**Comment:**
This task is more suited for upper-intermediate to advanced learners. The skills involved here are noticing, hypothesising and experimenting. Students first have to observe how the various meanings of *round about* have different collocating verbs and objects. Then they have to make hypotheses, from the given examples, about how each particular meaning of *round about* has a special colligating pattern and specific semantic preferences for particular words to create positive or negative prosodies in their usage. To practise the skills of noticing and hypothesising, students can experiment with these skills in the final question of the task, in which they are required to draw a new form-meaning representation for a particular meaning of *round about*.

**5.7.3b Applying linguistic principles of Cognitive Semantics to IOL**

This section will demonstrate how the principle of interpreting meanings and usages of idiomatic expressions from familiar metaphorical concepts can develop
investigative skills of noticing, hypothesising and experimenting. Below are two examples of such tasks. There is a commentary following each task explaining how they are suitably designed for learners of different linguistic levels.

**TASK 1:**
The following examples show the metaphorical concepts:

a) LOW STATUS AND BAD ARE DOWN
b) DEFEAT IS OUT

e.g.s.
I sit next to a *down and out* who has salvaged his lunch from the bins.

The financial community was also shocked by a recent photograph showing him looking like a *down and out* with flowing locks and a long white beard and wearing dirty jeans and trainers.

Tony Wilkinson dressed up as a *down and out* in London and lived like a tramp for several weeks.

She had worked, during her training years, in enough *down and out* shelters to recognise without any trouble, the sound of a drunk snoring.

Clinton himself was *down and out* 13 months ago.

The West Indies were *down and out* at 140-6.

Des Walker handed the *down and out* Dutch a penalty.

Last season Everton looked *down and out* in November.

(Data taken from BNC and COBUILD)

**Question:** Underline all the words in the examples that hint or suggest these particular meanings.

**Comment:**

This task is suitable for beginner to intermediate learners because they test if their interpretation of metaphorical expressions in an unfamiliar language, can be based on their cultural knowledge, world knowledge and/or experiences of concepts such as low status and defeat. The students test their interpretations or hypotheses based on their observations of the lexical choices or word that hint at or suggest these particular meanings.
TASK 2:
The following examples demonstrate a particular metaphorical concept:
CONSCIOUSNESS IS MOVEMENT
e.g.s. I was up and about again within a week
...he'll be up and about in no time, I can assure you...
I work odd hours which means I'm up and about at funny times of the day.
I don't see why he should lie in bed all day when I'm up and about.
When you come next week, I'll be up and about, as good as ever.
How good to see you up and about again.
(Data taken from BNC and COBUILD)

**Question:** From the examples above, find some other expressions you know, that convey the same metaphorical concept

**Comment:**

This task is suitable for all levels of learners in the sense that the teacher can grade and sequence the task depending on the ability of the learners. The task requires two stages of mental processing:

a) Stage 1: Hypothesising or interpreting the meaning of the expression *up and about* from observations of lexical choices in the given examples about the concept of “being conscious”, based on their own cultural knowledge, world knowledge and experiences.

b) Stage 2: Experimenting with their observations and hypotheses about expressions depicting similar concepts, by suggesting other expressions they might be familiar with.

Beginner to intermediate learners can stop at Stage 1. However, more advanced learners can progress to Stage 2, where they meet the challenge of experimentation. In this stage, they are encouraged to extend their skills of observation and hypothesis by exploring and analysing other alternative expressions which convey the same concept.
5.7.4 The role of the teacher in IOL

The teacher's role in IOL is a dual one. On the one hand, the teacher's role is an authoritative one because she has to formally instruct the students and initiate them into the skills of investigative learning. However, she is also a facilitator, guiding the students in the process of applying the skills of investigative learning. A typical lesson is shown below, where the teachers' role as authority and facilitator is clearly illustrated:

**Pre-learning activity (Teacher as Authority)**

Step 1: Providing students them with data of metaphorical expressions showing common language usage patterns

Step 2: Demonstrating how meaning usages and grammatical functions of these metaphorical expressions are derived from observations about lexical choices and syntactic patterns.

Step 3: Making hypotheses based on the observations

Step 4: Experimenting and testing out the hypotheses by providing further examples and encouraging students to also provide their own examples

**Learning activity (Teacher as Facilitator)**

Step 5: Provide students with new data and guide them through Steps 1-4 again.

**Post-Learning activity (Teacher as both Facilitator and Authority)**

Step 6: Students are asked to practise the usage of the metaphorical expressions learnt, either by using them in a written assignment or providing oral examples. The teacher evaluates the appropriacy and accuracy of the usages by correcting errors or affirming the correct usages.
In fact, in IOL the relationship between teacher and student can also be likened to that of teacher and researcher (see Ellis: 1998) and is summarised below:

1) **Teacher as authority**
   (initiates, instructs, and evaluates)

2) **Student as participant**
   (observes instructions and attempts skills)

3) **Teacher as facilitator**
   (guides)

4) **Student as researcher**
   (reports findings and is evaluated)

---

5.8 IOL tasks and CLT tasks compared

According to Johnson and Morrow (1981) and Nunan (1988a), communicative tasks have the following characteristics: **information gap, choice, feedback**. Based on these criteria, I will now evaluate the similarities and differences between IOL and CLT. However, I will also do so based on other factors as well, namely, evaluation, authentic materials, culture and transfer of learning.

**Information gap** can be defined as the information that one person in the exchange knows but not the other. In IOL, an information gap definitely exists because the students in the class do not know the answers to the task beforehand and can only find out the answers through a process of investigation.

In CLT, students are given a **choice** of what to say and how to say it. It is in this aspect that IOL differs from communicative tasks. In IOL, the tasks are tightly controlled in the sense that there is really no choice in form or content. Students have to report the results of their findings after a process of analysis, and the report is likely
to be similar from one student to the next, since there is only a fixed and limited
number of answers. However, it must be stressed that the aim of IOL is not
communication, but the development of investigative skills.

A task is considered communicative if a speaker receives feedback from a
listener, based on the information received. Once again, however, IOL confines itself
simply to the development of three skills - Noticing and Hypothesising and
Experimenting - and is not concerned with the development of fluency or accuracy in
communication. For this reason, IOL tasks do not make provision for feedback from a
listener in terms of expressing communicative functions, unless it is for evaluation.
This is due largely to the monothematic nature of IOL tasks, which consist solely of
analysing various examples of common language patterns, in order to investigate their
usage. Hence, IOL tasks have to be completed individually or in small groups with at
most 3 students, so that individual findings can be compared, evaluated, reported and
shared within the group.

In communicative tasks, a teacher evaluates fluency and accuracy in
communication. Errors are tolerated usually as a natural development of
communicative skills. In IOL however, the teacher evaluates the extent to which the
investigative skills have developed. This can only be achieved by evaluating the
product, which is the report of the findings. The product would be then an automatic
evaluation of the process because it will measure the extent of the development of the
investigative skills. In all cases, the accuracy of the students' findings will affirm
whether or not the skills of Noticing, Hypothesising and Experimenting have been
applied and the degree of development. In short, IOL tasks can be considered both
process-and-product-oriented, where the value of the task lies in both.
Where the issue of **authentic materials** is concerned, both CLT and IOL rely on them heavily. CLT tries to provide students with authentic language i.e. language that is used by native speakers in a real context, by providing various language forms (phrases, expressions, grammatical and lexical choices) to realise one communicative function. IOL, on the other hand, does the opposite by providing authentic material of one language form to realise various communicative functions (e.g. convergence, agreeing, irony, sarcasm, etc). In both approaches, however, the use of authentic material is paramount for the development of Language Awareness.

By providing authentic language, learners are equipped with various forms and functions to communicate. Also, they are empowered with the aid of investigative skills, to participate in a **foreign culture**, by investigative questioning or aligning themselves with its socio-cultural conventions.

In terms of **transfer of learning** outside of the classroom, the aims of CLT and IOL are similar. Both try to encourage reflective thinking in the sense that both approaches try to lead students to discover answers for themselves in the classroom in the expectation that they will be able to transfer the skills learnt outside of the classroom. However, once again, the type of skills developed in both approaches are different. In CLT, the skills that are learnt and transferred outside of the classroom are fluency skills for natural communication. On the other hand, in IOL, the transferable skills are those required for investigative questioning.

To conclude this section, suffice it to say that despite the different teaching aims and objectives of CLT and IOL, both approaches do share some similar principles. The table below summarises the discussion highlighting similar and different principles between the two approaches:
### Table: Principles of Communicative Language Teaching (CLT) and Investigative-Oriented Learning (IOL)

<table>
<thead>
<tr>
<th></th>
<th>Communicative Language Teaching (CLT)</th>
<th>Investigative-Oriented Learning (IOL)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Learning Aims</strong></td>
<td>Natural Communication</td>
<td>Investigative Thinking</td>
</tr>
<tr>
<td>Orientation</td>
<td>Process</td>
<td>Product and Process</td>
</tr>
<tr>
<td>Information-gap</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Choice</td>
<td>√</td>
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<tr>
<td>Feedback</td>
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<tr>
<td>Evaluation</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Authentic materials</td>
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<td>√</td>
</tr>
<tr>
<td>Culture</td>
<td>√</td>
<td>√</td>
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<tr>
<td>Transfer of learning</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Role of teacher</td>
<td>Facilitator and Advisor</td>
<td>Authority and Facilitator</td>
</tr>
<tr>
<td>Empowerment in student</td>
<td>√</td>
<td>√</td>
</tr>
</tbody>
</table>

#### 5.9 Conclusion

Following the reasons behind my proposal for an IOL approach to provide better descriptive awareness about language, it is only apt that this proposal be tested out in an actual classroom situation. The report of the classroom study, the hypothesis guiding it and procedures carried out in the investigation are detailed in Chapter 6.
Chapter 6: Researching the IOL approach in an EFL classroom

6.0 Introduction and sub-hypothesis 3

Based on my proposal of IOL in Chapter 5, this chapter will report findings from a small classroom study, which constitutes Stage 6 of this research. The classroom study was conducted on two EFL classrooms in a Further Education College in Nottingham. One of the classes was taught using IOL, and the other a CLT approach. The study lasted for twelve weeks. The subjects were a mixture of full time and part-time EFL students, between the ages of 18 and 30 with approximately 2 years of English Language experience. All of them were of intermediate level and had been learning English in Nottingham for a year. Those who were part-time EFL students were attending English Support classes to improve their level of English so as to aid in their understanding of other courses.

A sub-hypothesis summarising the aims of this stage of the research is:

Sub-hypothesis 3: Investigative-Oriented Learning (IOL) is more suitable an approach than Communicative Language Teaching (CLT) for developing skills of investigative thinking required in Conscious Investigation, such as Noticing, Hypothesising and Experimenting. These skills can be acquired through the teaching and learning of the metaphorical usages and syntactic construction of common idiomatic expressions such as prepositional clusters.
In essence, the report in this chapter will attempt to explore the above sub-hypothesis by comparing the efficacy of both approaches in developing investigative skills whilst the student is learning idiomatic expressions. The idiomatic expressions selected for the IOL tasks are some prepositional clusters which were unfamiliar to the students, but commonly used by native English speakers. To ensure that the students had no knowledge whatsoever of the meaning or usage of these clusters, a preliminary test was given to them first, the details of which are outlined in Section 6.3. Resource data for the classroom tasks were taken from the BNC, COBUILD and CANCODE corpora.

6.1 Investigative questions and procedures

Before reporting the findings of the study, it is appropriate at this point to give a brief description of the procedures that will be used in the investigation. The procedures are guided by the following questions based on the above sub-hypothesis.

- To what extent does Communicative Teaching activate Conscious Investigation? (i.e. what aspects of Language Awareness does Communicative Teaching develop?)
- How successful can it be to apply linguistic principles of corpus analysis and cognitive semantics in IOL to develop skills of Conscious Investigation? (i.e. what are the advantages and disadvantages encountered by the teacher and students when teaching metaphorical expressions such as prepositional clusters using these principles?)
- How do teachers evaluate that Conscious Investigation has taken place successfully? (i.e. to what extent have both reception and production taken place?)

The procedures that will be carried out in order to investigate the above questions are described below:
• To what extent does Communicative Teaching activate Conscious Investigation? (i.e. what components of Language Awareness does Communicative Teaching develop?)

**Procedure:**

A survey of some popular language coursebooks will be carried out, to investigate if there are any signs of language awareness activities and if there are, what kinds.

• How successful is it to apply linguistic principles found in corpus analysis and cognitive semantics in IOL to develop investigative skills? (i.e. what are the problems and successes encountered by the teacher and students when teaching metaphorical expressions like prepositional clusters using IOL?)

**Procedure:**

A preliminary test will be conducted on students to check if they have pre-knowledge of metaphorical expressions composed of prepositional clusters. Some teaching materials will be developed focusing on skills in noticing, hypothesising and experimenting with language patterns, which are necessary in conscious investigation.

The teaching materials will be tested out on students over a period of 3 months (12 lessons). Any problems and successes encountered by the teacher and the students will be recorded, with regard to:

⇒ the application of linguistic principles in IOL tasks - principles in corpus analysis and cognitive semantics or

⇒ teaching approach - presentation of material to students, using raw and uncut data and concordance lines, and level of difficulty of materials for students, etc.
A control group will also be used in the investigation and taught the same examples of metaphorical expressions from prepositional clusters, but this time using a communicative approach, so as to compare teaching approaches and type of material/activities used.

- How do teachers evaluate that Conscious Investigation has been activated? (i.e. to what extent have both reception and production taken place?)

**Procedure:**

Written homework will be given to both groups (experiment and control) and assessed to see if students understand the usages and syntactic formation of the prepositional clusters taught. The written homework is evidence for the teacher to check if reception, comprehension and production of the prepositional clusters taught have all occurred.

Two post-tests will be conducted and the results assessed. The first post-test will formally assess that students have genuinely comprehended the meaning usages of the prepositional clusters taught during the 12 weeks. A second post-test, an exit test, will be given to students using some prepositional clusters that the students are not familiar with, to analyse the syntactic and semantic characteristics of these clusters. The exit test will confirm if the skills of noticing, hypothesising and experimenting have been acquired permanently to be put to use in the analysis of any other type of prepositional cluster pattern that occurs in everyday communication, and transferable as skills to be applied to other types of common word patterns other than prepositional clusters. Evidence of this general ability to apply the skills of noticing, hypothesising and experimenting in task-based language observation is a sign of Conscious Investigation.
From the survey of some language coursebooks that have been used for the past years, there was no evidence of prepositional clusters and their meanings being taught. If prepositions were taught, they were usually taught as single words with their usage based on deictic functions.

From the survey, it was also clear that the coursebook writers assumed that there was only one kind of language awareness: the type which I have called Descriptive Language Awareness. In some well-known language coursebooks, for example, like *Language in Use*, produced by CUP in 1997, there was a focus on the differences between U.S. English and British English, informal and formal varieties of English, teaching the meaning of idiomatic phrases or phrasal verbs in which the focus is obviously descriptive language awareness. The approach used in the unit seemed to be only that of the traditional Present-Practice-Produce approach where modelled examples were given, followed by a gap-filling exercise at the end of the unit. The diagram below lists the coursebooks surveyed and any evidence of prepositional clusters or consciousness raising activities being taught:

<table>
<thead>
<tr>
<th>Title of Coursebook</th>
<th>Type of prepositions presented</th>
<th>Type of language awareness activity presented</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workout (1993) (Upper Intermediate), Longman</td>
<td>None given</td>
<td>Starting a conversation, Stating intentions, Saying the right thing (remembering and helping people to remember, hesitating, making suggestions and giving advice, asking permission to do something, agreeing and disagreeing</td>
</tr>
<tr>
<td>New Headway (1998) (Upper Intermediate), OUP</td>
<td>Single prepositions integrated in vocabulary sections</td>
<td>Expressing exclamations, Expressing interest and surprise, Social expressions, Telephone conversations -beginning and ending a call, English signs, exaggeration and understatements, being polite, moans and groans, time and expressions, linking and commenting</td>
</tr>
<tr>
<td>Type of prepositions presented</td>
<td>Type of language awareness activity presented</td>
<td></td>
</tr>
<tr>
<td>---------------------------------</td>
<td>---------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Accelerate (1998) (Upper Intermediate), Heinemann ELT</td>
<td>Verb and preposition combinations</td>
<td>Conducting an interview, Predicting, Making a radio programme, Role-playing a conversation, Role-playing a court-scene, Exchanging information</td>
</tr>
<tr>
<td>The New Cambridge English Course (1991), CUP</td>
<td>Single prepositions given - time, end position of prepositions</td>
<td>How to greet, introduce, begin conversations with strangers, asking for and things, giving news, advising, agreeing and disagreeing, describing, comparing and contrasting, making enquiries</td>
</tr>
<tr>
<td>Intermediate Matters (1995), Longman</td>
<td>Single prepositions given - time, place, verb and preposition combinations</td>
<td>Intonation, word-building, antonyms and synonyms, deducing meaning</td>
</tr>
<tr>
<td>Collins Cobuild Grammar of English (1995), HarperCollins</td>
<td>Single prepositions given - time, place</td>
<td>Correcting common errors</td>
</tr>
<tr>
<td>Advanced Grammar in Use (1999), CUP</td>
<td>Single prepositions given - time, place</td>
<td>Typical errors and corrections</td>
</tr>
</tbody>
</table>

Comments:

The teaching and learning approach of the language awareness activities surveyed in the coursebooks tended to test a limited amount of reception and comprehension skills, based on a decontextualised sentence. At most, the skills developed in these units were those related to language awareness, mentioned in the introduction of this chapter, where students are presented with various features in the language mainly to do with dialectal variations, informal and formal styles of speaking, and simple semantic features like double meanings. In this respect, such exercises tend to develop awareness about language structures, linguistic universals and at most metalinguistic awareness (see Section 5.6 for components of Language Awareness). There was no evidence of practice in developing skills of Conscious Investigation such as noticing, hypothesising and experimenting which, as put forward earlier, are necessary for a more descriptive knowledge about language use. It is also quite obvious that gap-filling exercises given at the end of the activity will not develop any skills in language production, but maybe reception and comprehension at
most. This is because it is impossible for students to reproduce written or spoken texts simply by imitating the few models or examples given. More authentic examples and practice in producing these models must be given but not from a few gap-filling sentence activities.

At this point of the discussion, I would like to reiterate my position with regard to skills developed in communicative teaching. I am not suggesting that these skills are secondary or less valuable than those developed for Conscious Investigation. All the skills are important for empowering language learners to be active participants in language learning, but the skills have to be taught in progression. Skills developed by communicative teaching for language awareness must precede those developed for Conscious Investigation. The skills required for each stage are particular.

In conclusion, the survey showed three findings:

- there is still an assumption among coursebook writers that there exists only one kind of language awareness which is that developed by communicative teaching. This awareness has to do with lexis, grammar, functions, differences between written and spoken language, history of language and varieties of English.
- coursebook writers do not show any evidence of a systematic development of skills required for progression to a more sophisticated kind of language awareness like Conscious Investigation.
- in many coursebooks, there is still a heavier emphasis on reception and comprehension than on the development of reception, comprehension and production.
6.3 Report of preliminary test given to students on prepositional clusters

A preliminary test composed of 16 gap-filling questions was given to two groups of overseas students - experimental group and control group. Both groups comprised 15 students each, ranging between 18 and 23 years of age. All the students of both the experimental and control groups had already been learning English as a Foreign Language in Nottingham for a year. The students were of intermediate ability in their level of English. A sample of the preliminary test can be found in Appendix 4. The results of the preliminary test, however, are given in the next page:
Results of **preliminary test** for experimental group and control group

<table>
<thead>
<tr>
<th>Preliminary Test</th>
<th>% of answers containing prepositional clusters</th>
<th>% of answers containing single words or expressions showing the same meaning</th>
<th>% of wrong answers or unanswered</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Experimental Group (15)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student 1</td>
<td>12.50</td>
<td>50.00</td>
<td>37.50</td>
</tr>
<tr>
<td>Student 2</td>
<td>18.75</td>
<td>56.25</td>
<td>25.00</td>
</tr>
<tr>
<td>Student 3</td>
<td>12.50</td>
<td>56.25</td>
<td>31.25</td>
</tr>
<tr>
<td>Student 4</td>
<td>18.75</td>
<td>25.00</td>
<td>56.25</td>
</tr>
<tr>
<td>Student 5</td>
<td>6.25</td>
<td>50.00</td>
<td>43.75</td>
</tr>
<tr>
<td>Student 6</td>
<td>18.75</td>
<td>43.75</td>
<td>37.50</td>
</tr>
<tr>
<td>Student 7</td>
<td>6.25</td>
<td>43.75</td>
<td>50.00</td>
</tr>
<tr>
<td>Student 8</td>
<td>12.50</td>
<td>25.00</td>
<td>62.50</td>
</tr>
<tr>
<td>Student 9</td>
<td>18.75</td>
<td>18.75</td>
<td>62.50</td>
</tr>
<tr>
<td>Student 10</td>
<td>6.25</td>
<td>37.50</td>
<td>56.25</td>
</tr>
<tr>
<td>Student 11</td>
<td>6.25</td>
<td>25.00</td>
<td>68.75</td>
</tr>
<tr>
<td>Student 12</td>
<td>12.50</td>
<td>37.50</td>
<td>50.00</td>
</tr>
<tr>
<td>Student 13</td>
<td>25.00</td>
<td>31.25</td>
<td>43.75</td>
</tr>
<tr>
<td>Student 14</td>
<td>31.25</td>
<td>31.25</td>
<td>37.50</td>
</tr>
<tr>
<td>Student 15</td>
<td>31.25</td>
<td>43.75</td>
<td>25.00</td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td><strong>15.83</strong></td>
<td><strong>38.33</strong></td>
<td><strong>45.84</strong></td>
</tr>
<tr>
<td><strong>Control Group (15)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student 1</td>
<td>31.25</td>
<td>43.75</td>
<td>25.00</td>
</tr>
<tr>
<td>Student 2</td>
<td>6.25</td>
<td>50.00</td>
<td>43.75</td>
</tr>
<tr>
<td>Student 3</td>
<td>6.25</td>
<td>43.75</td>
<td>50.00</td>
</tr>
<tr>
<td>Student 4</td>
<td>16.00</td>
<td>16.00</td>
<td>64.00</td>
</tr>
<tr>
<td>Student 5</td>
<td>8.00</td>
<td>25.00</td>
<td>67.00</td>
</tr>
<tr>
<td>Student 6</td>
<td>18.75</td>
<td>25.00</td>
<td>56.25</td>
</tr>
<tr>
<td>Student 7</td>
<td>12.50</td>
<td>25.00</td>
<td>62.50</td>
</tr>
<tr>
<td>Student 8</td>
<td>19.25</td>
<td>43.75</td>
<td>37.00</td>
</tr>
<tr>
<td>Student 9</td>
<td>4.00</td>
<td>25.00</td>
<td>71.00</td>
</tr>
<tr>
<td>Student 10</td>
<td>27.25</td>
<td>25.00</td>
<td>47.75</td>
</tr>
<tr>
<td>Student 11</td>
<td>12.50</td>
<td>37.50</td>
<td>50.00</td>
</tr>
<tr>
<td>Student 12</td>
<td>10.75</td>
<td>25.00</td>
<td>64.25</td>
</tr>
<tr>
<td>Student 13</td>
<td>8.00</td>
<td>31.25</td>
<td>60.75</td>
</tr>
<tr>
<td>Student 14</td>
<td>12.50</td>
<td>37.50</td>
<td>50.00</td>
</tr>
<tr>
<td>Student 15</td>
<td>6.25</td>
<td>18.75</td>
<td>75.00</td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td><strong>13.30</strong></td>
<td><strong>31.48</strong></td>
<td><strong>55.22</strong></td>
</tr>
</tbody>
</table>
Comments:

The results of the preliminary test given to the experimental group and the control group showed two findings:

- that students of both groups had little or no knowledge of metaphorical expressions involving prepositional clusters as shown by the high percentage of wrong answers and unanswered questions (45.84% for the experimental group and 55.22% for the control group).

- given the choice between using either a prepositional cluster or a word/phrase of equivalent meaning, students of both groups preferred to choose the latter (38.33% vs 15.83% for the experimental group and 31.48% vs 13.30% for the control group).

The two findings are important in this preliminary study because they are indicative of the fact that the students are not aware of the existence of prepositional patterns and idiomatic meanings involving prepositional use such as those found in prepositional clusters. Thus, this lack of pre-knowledge of patterns involving prepositional clusters makes it an ideal starting point to embark on the actual study of evaluating the effectiveness of the IOL in analysing patterns of prepositional clusters and their metaphorical use. The long term teaching and learning objective which is to be gained by this study is of course for students to be able to apply these skills of Conscious Investigation in observing other patterns of real language use.

6.4 Sample teaching activities for experimental group and objectives

The teaching activities developed for this study are designed specially to be taught to the experimental group. These activities are of two types:

a) syntactic patterns involving prepositions, such as Prep+and+Prep,
Adj/Adv+Prep, Prep+Adj/Adv, Prep+N, etc, in which emphasis is placed on raising awareness of the collocational and colligational tendencies of single prepositions with other grammatical clusters

b) metaphorical concepts found in prepositional clusters, where emphasis is placed on extending learners' knowledge of a particular conceptual domain and applying this knowledge to the interpretation of meaning and usage of prepositional clusters and other kinds of metaphorical expressions.

From the teaching activities (see Appendix 5 for samples), it will become clear that the objectives of using the activities are two-fold:

- to increase learner consciousness and awareness of simple grammatical patterns involving prepositions used in everyday communication and
- to help learners' interpret everyday metaphorical expressions by conceptualising the meanings of these expressions and relating them to familiar metaphorical concepts and notions

After being exposed to, or noticing a particular grammatical feature, learners are encouraged to hypothesise rules for that feature, e.g. by deriving syntactic rules, collocational and colligational features, determining meaning usage, identifying metaphorical concepts, discourse functions, etc, and finally to experiment with these rules on other examples. The cycle of Notice-Hypothesise-Experiment, is repeated each time a learner comes across a “deviant” grammatical features to which he or she has not been able to apply the rules previously hypothesised. In this way, the learner is actively involved in the learning process and is more aware of how language is meaningfully and effectively utilised. Furthermore, the cycle encourages the development of a production strategy which allows efficient cognitive processing (see
Skehan, 1984, 1998; Tarone, 1981) because there is a systematic “attempt to make use of one’s linguistic system efficiently and clearly, with a minimum of effort” (Tarone, 1981: 289)

All the activities make use of authentic data taken from many written and spoken sources such as from newspapers, advertisements, novels, conversations, television and radio broadcasts and corpus data from the BNC, COBUILD and CANCODE. The advantages of using authentic data from corpora has already been discussed in Section 5.5.

6.5.1 Problems encountered while using IOL

1) Possessing only descriptive knowledge about prepositions

The activities took longer than expected to complete because a lot of pre-teaching was needed before students from the experimental group could actually start analysing the data given in the exercises. For example, in activities 1, 2 and 5 (see Appendix 5), where the focus was on extending learners’ knowledge of a particular metaphorical concept or conceptual domain in the interpretation of the meaning and usage of prepositional clusters. I found that I had to first access their knowledge of prepositions and the meanings and usages associated with them. Accessing the students knowledge of prepositions was not a problem because the students could list quite a few that they had learnt before, from English classes in their own countries. The students were also able to give examples of how certain prepositions were used, e.g. in to denote a direction towards the interior, up to denote a direction upwards, etc. However, it was quite obvious that the students’ knowledge of prepositions were confined to their deictic functions and not metaphorical usage or meanings. As
mentioned previously, this kind of linguistic knowledge of prepositions is superficial and can be termed *descriptive knowledge*. Furthermore, the students had no knowledge of English prepositional clusters. These two observations could probably be explained from the findings of the coursebook survey conducted previously that if prepositions were presented in coursebooks, they were presented to be taught as single words where emphasis was given to their deictic functions with little or no mention of their metaphorical usages and meanings. Also, since the survey conducted showed that there was no evidence of prepositional clusters being taught, this would account for the students' lack of knowledge of them.

In order to address the problem of a lack of or insufficient knowledge about prepositional clusters, I had to present many examples of prepositions in which I hoped to access knowledge of their deictic functions and extend this knowledge to include the metaphorical concepts associated with the prepositions (e.g. UP is associated with good feelings, high status, etc and DOWN is associated with bad things, low status, feeling depressed, etc). Besides that, I also had to present the collocates associated with the prepositions such as “dirty”, “unkempt”, “poor”, “defeated”, etc, and illustrate that they belonged to the conceptual domains of *low status and feeling depressed*, associated with the metaphorical concept DOWN IS BAD.

Only after sufficient pre-teaching and presentation of various examples about metaphorical concepts and related conceptual domains of single prepositions, did I feel that the students were confident and ready to embark on the exercises in which the language awareness component of *conscious investigation* could be activated. To do this, students had to analyse corpus data in which they were to *observe and notice*
the metaphorical meanings of some prepositional clusters (and other clusters formed by other grammatical classes like adverbs and verbs), hypothesise a metaphorical rule for these prepositional clusters, underline words and phrases that hinted or suggested these meanings and later experiment with these rules by using these prepositional clusters in short pieces of written homework according to the title that was given to them. Most of the students managed to do the analyses of the corpus data given to them quite successfully, coming up with the right answers most of the time. It was quite obvious at the end of the lesson that the process of conscious investigation must have been activated in the students because they had to utilise the skills of observation, hypothesising and experimenting in order to provide the right answers.

To conclude this section, two main problems to be highlighted regarding the teaching of metaphorical concepts and related conceptual domains were found using IOL:

- Firstly, a lot of pre-teaching was involved, so much so that the proportion of time spent in developing the skills of Conscious Investigation was less in comparison to the pre-teaching. This was evident at the start of the first lesson. However, this disparity is justifiable because it was necessary first to access the descriptive knowledge of the students about prepositions and then extend this knowledge to include that of metaphorical concepts and related conceptual domains. This was made possible by presenting many authentic examples of prepositional usage in real language communication.

- Secondly, since Conscious Investigation has to be activated and assessed through the involvement of mental processes, an interface between traditional Present-Practice-Produce approach and that of the Notice-Hypothesise-Experiment
approach has to be used constantly in the teaching and learning of prepositional clusters. Hence, the pre-teaching phase would make use of the traditional Present-Practice-Produce approach where the teacher’s role is that of authority, supplying information about prepositional usage in the pre-learning stage. In the main activity where students apply the Notice-Hypothesise-Experiment approach on their own, the teacher’s role has now changed from authority to facilitator.

- Finally, since all of the data were taken from corpora, newspapers and advertisements, a problem faced especially with regard to corpus data, was that the data were still in decontextualised format, since many of them were taken off concordance lines. As a result, two related problems were found:

⇒ the students of the experimental group had the added difficulty of trying to contextualise the given examples for themselves besides analysing the meaning and usage of the prepositional cluster in the examples. To overcome this problem of decontextualisation, it was necessary to provide a probable contextual setting for much of the data. Some of these decontextualised examples are shown below, and can be found in Exercises 3, 4 and 5 (see Appendix 5):

“...We decided to forget about the third canister and made off across the cornfield at speed, the jeep bouncing up and down on the very uneven surface...”
(Data from the British National Corpus, Code: A61 250)

“...We hate to detain our most welcome guests, especially when they have come from so far. He looked Anna May up and down as if his mind could do with a good Chinese laundering. I have urgent business to attend to...”
(Data from British National Corpus, Code: GLV 92)

“...the stone-work mellows, and here and there vineyards appear...”
(Data from COBUILD Bank of English)

“...delicate bamboo-screens placed here and there...”
(Data from COBUILD Bank of English)

“...Krashman ruins his chances beyond all repair in the third verse by...”
(Data from COBUILD Bank of English)
An additional problem faced with regard to raw and uncut data besides that of decontextualisation was the preponderance of metaphorical usage within the data, other than that of the prepositional cluster. This could be explained by the fact that all the data presented in the activities were examples of authentic spoken and written language use in which metaphorical usage is a common feature of everyday language communication. However, for the students, these other metaphorical allusions added a further difficulty in comprehending not only the meaning and usage of the prepositional clusters in the given examples, but also the overall meaning of the sentences. Examples of other metaphorical allusions used together with prepositional clusters in the same examples can be found in Exercise 3:

"...The trains, running up and down from London to Stanmore and back, could only be seen through the foliage as a series of silver flashes, but their singing rattle made a constant background music..."

(Data taken from British National Corpus, Code: EDN 1786)

⇒ The second problem was that of unfamiliarity with cultural references. In many of the data taken from the corpora, there were many cultural references to English life and famous English personalities which the students were not familiar with. When questioned by the students about who and what these cultural references were, I found myself trying to explain a little about them, thus diverting now and then from the actual learning task. Similar to the problem of metaphorical allusions, the cultural references had provided an additional difficulty in overall meaning comprehension of the sentences and brief explanations were meant to counter this
problem and facilitate the actual learning task of analysing the meaning and usage of the prepositional clusters, hypothesising rules for their usage and experimenting with these rules. The following are examples of data (found in Exercises 2 and 8 in Appendix 5) in which students had some difficulty in understanding because of the references made to cricket and football. Also these examples involved all kinds of cultural embedding:

"...The West Indies were down and out at 140-6..."

"...Des Walker handed the down and out Dutch a penalty..."

"...Last season Everton looked down and out in November ..."

"...In the English First Division, you are better off going for players that you know..."

(All data taken from COBUILD Bank of English)

Comments:

Despite the problems of decontextualisation, and a preponderance of metaphorical allusions and cultural references faced by the students as a result of raw and uncut corpus data, the actual learning task in which students had to apply the skills of conscious investigation to the data - observing, hypothesising and experimenting - was not compromised. Students were still on task analysing the data presented while the teacher was always at hand to answer any queries related to the problems mentioned above. However, to overcome any distractions in the lesson that might arise from such problems of decontextualisation, metaphorical and cultural allusions in the data, a solution would be to edit the raw and uncut corpus data to suit the level and type of students being taught before actually presenting them. By editing, I mean removing unfamiliar cultural references, substituting metaphorical
allusions within the data with words or phrases of equivalent meaning and making the data more contextualised by providing simple clues to setting, speaker relationship, etc, however, without losing the essence of the overall meaning or usage of the prepositional cluster being analysed. Although much criticism has been levelled recently at teachers regarding the use of edited data in the classrooms, based on the argument that edited data compromises the authenticity of real language use, I feel that for teaching and learning purposes, this criticism is unfounded since the editing is necessary for the benefit of the students to facilitate comprehension. However, the process of editing must ensure that the general essence of the meaning is not lost or changed.

Another solution that could be used to prevent the problems described above is an innovative one offered by Chris Tribble (see Tribble, 2000: 31-41) who suggests that besides using the BNC sampler or Bank of English (COBUILD), teachers could compile their own source of linguistic data by using texts from CD-ROM Encyclopaedias. Various texts from the encyclopaedias can be edited and stored to form a micro-corpus in which teachers can output their own concordance lines by using commercially available concordancing packages such as *WordSmith Tools*, *MonoConc 1.5* and *MonoConc Pro*, or simple word processing commands. According to Tribble, the advantages of using a micro-corpus are that the concordance data presented from such texts would be of interest to the students, can be tailored to suit their level and are still sufficient in quantity for analysis. Students thus would not be overwhelmed with too much data or unnecessary information (e.g. cultural allusions).
6.5.2 Successful Lessons using IOL

1) Extending descriptive knowledge about prepositions, grammatical functions and world knowledge to include knowledge about form and meaning

Despite the initial lessons proceeding at a slower pace than expected, by week 6 of the 12-week course, students in the experimental group were eventually becoming more used to the skills of conscious investigation: Notice-Hypothesise-Experiment. They did not need as much guidance as previously and were becoming more autonomous and independent learners in the sense that they were relying less on the teacher telling them how to proceed and guiding them through the analysis. Students were now becoming confident enough to offer probable answers to the questions in the activities, based on their observations and hypothesis in the analysis of the corpus data. As a result of the students' growing confidence in their skills of Conscious Investigation, the teacher's role was becoming a facilitating one where she was at hand mainly to answer simple and quick queries of contextualisation, cultural and metaphorical allusions. Exercises 3, 4, 6 and 7 (see Appendix 5) were particularly successful in providing practice in the skills of conscious investigation because the exercises dealt with syntactic patterning in which students had to extend their descriptive knowledge about prepositions, grammar functions and even world knowledge, and apply these various components of descriptive knowledge to analyse the usage and meaning of prepositional clusters. In Exercises 3 and 4 especially, students had to observe some corpus data and hypothesise about the meanings, usages and grammatical functions (e.g. if the cluster is used as a noun, adjective, adverb, complement, etc) of some prepositional clusters. Then, they had to apply their hypothesis to other parts of speech based on similar syntactic patterns (e.g.
Adj/Adv/Verb/Noun + and + Adj/Adv/Verb/Noun. In Exercises 6 and 7, students once again had to observe some corpus data in which this time they were given the meanings and usages of some prepositional clusters but they had to observe how each of these meanings could be diagrammatically represented according to the intersection of the syntagmatic and paradigmatic axes. Students then tested out these diagrammatic representations using other examples from the corpus:

A) upside down: inverted

```
noun (inanimate)

turned/put + upside down
```

B) upside down: in disorder and chaos

```
noun (place/present state of affairs)

+ was turned upside down
```

By observing the intersections, students then had to hypothesise for themselves a rule which showed the other meanings and usages of the same prepositional cluster and then experiment with this rule by representing it diagrammatically again in terms of the intersection of the syntagmatic and paradigmatic axes. Many students were quite actively engaged in this particular task and a majority of them managed to come up with the following diagram based on observing the usage of *round about* as a noun, meaning “circular road junction” from the data supplied in the exercise:

**round about**: circular road junction

```
Adjective/Adverb of direction

go/turn + (prep) + a/the + round about
```
In conclusion, the four exercises described above were the most effective lessons during the 12 week course because in all the exercises the students were able to successfully provide very sound hypotheses and answers to the questions in the teaching activities. This success showed that the students had actually engaged in the process of conscious investigation in order to arrive at their hypotheses and answers. Also, evidence that the students did not only acquire skills in comprehension and reception but also of production was found in their written homework, which will be discussed in a later section of this chapter (see Section 6.7.1).

6.6 Report of communicative teaching approaches to learning prepositional clusters and activating the skills of Conscious Investigation

This report will be sectioned into two parts: a) an analysis of the communicative teaching approach taken from the recording of a lesson taught by another teacher and b) problems and successes encountered in the teaching of prepositional clusters during the 12 week period. The prepositional clusters to be taught to the students were exactly similar to those taught to the students in the experimental group. However, unlike the experimental group, who had worksheets based on the prepositional clusters, the teacher of the control group was only given a list of prepositional clusters divided into 4 sets and the titles of the written assignments to be completed by the students. The purpose of not providing worksheets for the control group was to give free rein to the teacher to decide how she wanted to teach the prepositional clusters, so as not to dictate or restrict the teaching approach that she would have preferred to use. A copy of the list of prepositional clusters, organised in sets together with the written assignment titles for the students can be found in Appendix 6.
6.6.1 Analysis of teaching approaches used for experimental group and control group respectively

The analysis of the approach used by the teachers in both the experimental and the control group will be based on transcripts of part of a one hour lesson. The prepositional clusters that were taught for both lessons were based on Set 4 of Appendix 6. Both teachers had selected from the phrases enough of, open to, hard up, better off, instead of, later on and of course to teach their students. I was the teacher in the experimental group and an experienced teacher, who had been teaching EFL for 10 years using the communicative approach, taught the control group. A copy of the transcripts for the lessons conducted on the experimental group and control group can be found in Appendix 7 and Appendix 8 respectively.

From the transcripts of both teachers, it was quite clear that there was a large amount of teacher-talk used in the teaching of the prepositional clusters. However, only in this respect were the two lessons similar to one another. On closer analysis, there were two main differences in the teaching approaches of both teachers. Firstly, in the experimental group, the teacher was attempting to make use of linguistic principles from cognitive semantics in which she was making use of some universal metaphorical concepts associated with certain words while teaching the meaning usage of the prepositional clusters. In this particular lesson, the application of the metaphorical concepts that "what is behind means what is in the past" in contrast to "what is in front being what is ahead" was evident in the teaching of the combination Preposition + Adverb for the prepositional cluster all behind. This evidence is seen in lines 22-29:
22 T: Okay finally...the third one is...it was all below us...that's wrong...you have to say it was all behind us...all behind basically means all in the past. For example...if something bad has happened to you and then your friend says...no no don't worry about it...forget about it...it's all behind us now. Okay...so behind usually means in the past...in front is always future. So any expression with in front always has something in the future whereas an incident which has the expression all behind has the meaning of in the past. So if anybody wants to bring up old things...old quarrels...problems...you say...forget it...it's all in the past...it's all behind us.

While it is obvious that the teacher in the experimental group was making use of cognitive semantics strategies in the teaching of the prepositional cluster, analysis of the control group lesson showed that throughout the lesson the teacher relied mainly on examples of her own linguistic experience of the meaning usages of the prepositional clusters that she was teaching. In the control group, the reliance on the teacher's own examples based on her linguistic experience is the second difference in the teaching approaches between the two groups. In the experimental group, the emphasis was on awareness of meaning usage and syntactic patterning between the prepositional cluster and other collocates. Thus, not only were the different meaning usages taught, but the students were also made aware of the collocates that co-occurred with the prepositional cluster in forming a particular meaning. However, in the control group, the reliance on the teacher's own examples based on her linguistic experiences meant that she was focusing mainly on meaning usage of the prepositional cluster and not on the grammatical or lexical environment. This is quite obvious when we compare the following two extracts taken from two lessons where the prepositional cluster better off was being taught. The extracts are taken from both the experimental group and the control group respectively:
Extract from experimental group (lines 65-77) (See Appendix 7):

66 T: Very good...better than...that's right better off can sometimes means better than... it's a fixed expression...in English, we don't have to say better than...we can also say better off than but that usually means in terms of money....see the example...the strikers were better off than many other workers. But if you look properly...you can see that besides than...better off can also be followed by a preposition or continuous verb or the word without.... See the examples again... you can say...you will be better off by taking a job...or how was the company better off for my presence...or we'd all be better off selling insurance.... you’re better off living on your own....you’re better off without him...can you see that better off is followed by a preposition or verb plus -ing and the word without ? If you look at the meanings of the sentences closely, you can see they don't always mean financially better than. You can see that better off in the sentences just...just simply means in a...a...better...better position now than before....Okay you try to. make a sentence with better off ...Frank...

Extract from control group (lines 121-130) (See Appendix 8):

121 T: I'll just take one more...and that's better off...and again you’ll hear that with I’m...I’m better off...but because it’s a comparison...a comparative better off...you often use if with the word than...I’m better off than you. And very often this means I’ve got more money than you. I’m better off than you. So let’s think back to the other one...hard up. You say...do you fancy going to the cinema tonight....

126 and your friend goes I’m really sorry I can’t go because I’m really hard up...and then you might say...erm ...perhaps I’m better off than you...meaning perhaps I have more money than you or perhaps I earn more money than you. But it can also mean perhaps in a better situation than you...I’m better off than you...I’m in a better situation than you.

From the two extracts, it is clear that the teacher from the control group had focused only on one specific meaning of better off (i.e. to be in a financially better position than another person) because she was relying on her own linguistic
experience. Thus, she was not able to teach a more general usage of *better off* which is "to be in a better position or way compared to previously, not necessarily financially". Furthermore, from the transcript, it was also clear that the teacher from the control group focused more on meaning sense of the prepositional cluster rather than the grammatical environment surrounding the prepositional cluster. On the other hand, the teacher from the experimental group attempted to focus on both the meaning senses and the lexical environment, paying attention to the grammatical words that followed that particular prepositional cluster. This is illustrated in lines 71-75 from the first extract where the teacher brought the students' attention to the common collocates that followed after "better off" such as "than", "preposition", "without" and "verb plus -ing".

Comments:

From the description of the teaching approaches of the experimental group and the control group, it was clear that the main difference was that the teacher in the control group had to rely on her own linguistic experiences of language use. This is probably because the teacher had the disadvantage of not having any resource or data to help her teach the prepositional clusters to the students. As the survey of coursebooks showed, common prepositional clusters of the type being studied here were not found in many popular EFL coursebooks. Furthermore, the teacher's reliance on her own linguistic experience to teach these prepositional clusters showed that she herself had realised that the single prepositions presented in grammar books simply taught deictic meanings and not any metaphoricity in meaning associated with a particular preposition. Besides, such coursebooks did not focus on syntactic patterning of single prepositions with other prepositions or adjectives/adverbs to form common
metaphorical or idiomatic expressions used in everyday language. On the other hand, the teacher of the experimental group was fortunate enough not to have to rely on her own linguistic experiences but on authentic data taken from the corpus at hand as a resource aid in the teaching of each of the prepositional clusters.

Besides the absence of resource material and data, it was also clear from the teaching approaches of both teachers that in the experimental group, there were efforts on the teacher’s part to try and create an awareness about language use with regard to prepositional cluster usage. This awareness is not one of superficial descriptive language awareness where the students simply make use of their receptive and comprehension skills to understand meaning usage, but an awareness that is activated by conscious investigation, involving the skills of noticing, hypothesising and experimenting. This practice in conscious investigation was found in the experimental group, where the teacher encouraged the students to observe particular grammatical collocates that co-occurred with the prepositional cluster and then make hypotheses regarding the grammatical usage of the cluster.

The following extract taken from the teacher’s lesson shows this practice in conscious investigation, where the student’s response can indicate the attempt at noticing, hypothesising or experimenting after he or she has observed the grammatical function or meaning usage of the prepositional cluster in the given data. The teacher’s positive feedback indicates that the student has gone through this process of conscious investigation and successfully activated the skills mentioned above in order to come up with the correct answers:
Extract taken from experimental group (lines 87-103) (See: Appendix 7):

87 T: ... look at the examples, tell me where you would find later on in a sentence... at the beginning, middle or end of a sentence?
   S: ermmm maybe at the end. (noticing skill activated)

90 T: Good...yes (skills practice partially completed)...see the examples...you can see that later on is used just before the full-stop ...meaning at the end of a sentence right? Okay, look at the examples again, tell me how later on is used grammatically ...that means is it used as an adverb, adjective, noun? What do you think Frank? Look at the examples and tell me.
   S: erin... I think adverb. (noticing + hypothesising skills activated)

96 T: Yes.. see all those examples..I’ll see you later on..they mainly answer the question when right ? Okay...let’s move on to instead of...instead of usually means to substitute...... So Andy, look at how instead of is used in the examples and tell me what you would say if I asked you out to the cinema and you wanted to do something else..

101 S: I’d like to watch tv instead of going to the cinema (noticing + hypothesis + experimenting skills activated)
   T: Good ..well done. (all skills fully and successfully activated)

The skills practice found in the experimental group was noticeably absent in the control group, in which the teacher spent practically all the lesson time giving many examples from her own linguistic experience about the usage of the prepositional clusters. Due to lack of time, she asked the students to practice using the prepositional clusters in pairs, orally in the final few minutes of the lesson.

After analysing the transcript of the teaching approaches of both groups, I suspected that the written homework both groups had to do would differ in two respects. I then decided to assess the homework assignments based on these two criteria:

⇒ appropriate and accurate usage of the prepositional cluster
indication of the types of skills that could have been activated by both teaching
approaches

A fuller description of the assessment of the homework assignments and
subsequent post-tests will be given in the next section which focuses on continuous
and final performance of both groups.

6.7 Assessing continuous and final performance of both groups

As mentioned in the previous section, the evaluation of the continuous and
final performance of both the experimental and control groups was based on two
criteria. The criteria, their objectives and procedures for evaluation are given below:

- assessing the extent to which both reception and production skills have been
developed. This is investigated by testing students' knowledge about the meanings
and usages of familiar and unfamiliar prepositional clusters throughout the study:

1) giving continuous written assignments of the students to check if students have
understood the meanings and usages of the various prepositional clusters taught
and are able to produce them accurately and appropriately in writing. The purpose
of assessing the written assignments is to check that reception and comprehension
skills are not the only skills that have been accessed with regard to knowledge
about the meanings of the clusters. More importantly, the purpose of the written
assignments is to give students practice in extending their knowledge of the
meanings of the prepositional clusters learnt during the 12 week study by
producing these prepositional clusters themselves in written form. Thus, written
assignments give the students the opportunity to activate their production skills.

At this point, I should make it clear that in this study I am using the skills of
production as an evaluation of the degree to which the process of reception has been developed. This is because IOL, as emphasised in Chapter 5 (see section 5.6), is both a product and process oriented approach, emphasising both production and reception skills. I am not promoting the superiority of production over reception skills in this study, but merely using it as a tool to evaluate the extent of reception. The written assignments and post-tests functioned as a reflection of how successful IOL was in improving the performance competence of the students in both groups, i.e. how successful they were at being able to produce a new language item accurately and appropriately. As mentioned earlier also in Chapter 5 (see Section 5.2), once the students had comprehended the meaning usages of unfamiliar English expressions (reception) and knew how to use them accurately and appropriately in written or spoken media (production), whether or not they chose to produce them in their daily interactions with native speakers of English became a matter or personal choice. The aim of IOL was simply to equip the students with both the reception and production skills that would enable them to make this choice outside of the language classroom.

2) giving a post-test (1) conducted at the end of the 12 week study to formally assess that students have genuinely comprehended the meanings and usages of the prepositional clusters taught and are knowledgeable enough to produce them accurately and appropriately. This can be tested by checking if in a gap-filling exercise, students are more likely to choose a prepositional cluster or a word/phrase of equivalent meaning.

• assessing if the skills of Conscious Investigation have been activated and could be transferred to analysing unfamiliar prepositional clusters during the 12-week
period. This is done by giving post-test (2). Students from both groups are given some data in an exercise about a prepositional cluster that has not been taught to them. They then have to find out the meanings and usages of this particular prepositional cluster from the data provided. Correct answers would imply that the process of conscious investigation involving the skills of noticing, hypothesising and experimenting has been successfully activated and transferred.
6.7.1 Report of written assignments involving prepositional clusters

The aim of the written assignments was to give students from both groups adequate practice in using the prepositional clusters taught. In order to record their attempts, the students had to write small pieces of homework assignments where they had to make use of the prepositional clusters in their writing, based on the given topic. These assignments would then be assessed according to whether a student had understood the meaning of the prepositional cluster and used it correctly and appropriately in context.

From the homework assignments, it was clear that on the whole, the written homework of the experimental group was much better than that of the control group in terms of appropriate usage of meaning of the prepositional clusters learnt and correct grammatical usage. For both groups, I had ignored errors of tense, aspect, spelling, etc made by the students, as the main reason for assessing the homework was to ensure that the students were reasonably clear about the meaning usage and grammatical function of the prepositional clusters they were taught.

For the experimental group, it was observed from their homework that the students had understood the meanings of the prepositional clusters taught and were also able to use them appropriately in context and correctly in grammatical function (e.g. as an adjective, adverb, noun or complement). This evidence can be seen from some examples given below. Full versions of the students' work are given in Appendix II:
Examples of correct usage from experimental group

Then I ordered a cup of Mocha which I love very much and a piece of chocolate cake. The coffee was far and away the best I had ever had. (Unedited version from Shirley Lam, Hong Kong)

I can even remember our favourite game: turning cans upside down on the track and waiting for a train to bump them. My mother thought the pieces of cans would hit me. She said her feelings were turned inside out thinking about the danger of this game. (Unedited version from Cai Yu, China)

Andrew who is a neighbour of mine is a very strange man. Sometimes he looks smart, most of the time he looks like a down and out with long red hair and a pair of earrings in his eyebrows. One day I saw him walking up and down outside my house. I invited him in. He talked to me about his happiness and failure. I looked like a friend to him to listen to the ups and downs of his life. He told me that he will change his past life and is now an up and coming young poet. I am glad to see him up and about finally. (Unedited version from Ho Ann, China)

You can easy to see violence on the street and very little boys or girls smoking here and there. This is also far and away the fastest way to induce young people to learn to do bad things. Murder is by far the most serious violence for young people. The number of crime per day in the world is over and beyond what anyone thinks. (Unedited version from Connie Liu, Taiwan)
For the control group, however, it emerged that many of the metaphorical meanings of the prepositional clusters had been used wrongly in context, especially the clusters *straight and narrow, far and away, by and large* and *over and beyond*. However, the students of the control group correctly used prepositional clusters which had very strong deictic meanings such as *here and there, up and down, upside down* and *inside out*. When it came to the more metaphorical prepositional clusters such as *ups and downs, straight and narrow, far and away, by and large* and *round about*, the students' knowledge of the clusters' usages in meaning and grammatical function was lacking and inappropriate as evidenced by their written assignments. In fact many of the assignments showed indications that the students had tried to use the literal or deictic meanings of the prepositional clusters which would explain why there were many incorrect usages especially of the following prepositional clusters:

**Examples of incorrect usage from control group**

*...“I found a teenage boy and have a short chat with him. He is *straight and narrow* and said I don’t have enough money to spend...”* (Unedited version from Angel Mak, Hong Kong)

*...“In 1990, her career was *up and about* reached a new top of success...”* (Unedited version from B. Bandeira, Spain)

*...“They spend a lot of money to buy them. It is *by and large* if they know how much money they have got...”* (Unedited version from Viet Anh Nguyen, Vietnam)
..."Today you just put your money into bank and get a card. You may buy through the card in any market. It’s far and away use is good...." (Unedited version from Jason Li, China)

One of the possible reasons that the students from the control group had used the metaphorical prepositional clusters incorrectly could be due to the fact that they did not have the opportunity to look at ample amounts of data or examples, observe how these prepositional clusters were used metaphorically, hypothesise rules for them and experiment with these rules. As seen in the transcript of the lesson taught by the teacher in the control group, the communicative approach that she had used relied mainly on providing the students with her own made up examples of how the prepositional clusters were used, after which students were set a task where they had to practice using these prepositional clusters orally with one another. Finally the students were given a written homework assignment about prepositional clusters so as to enable them to practise what they had learnt about the meanings of the prepositional clusters.

Based on the communicative approach conducted on the control group, it is clear that the absence of any real authentic data of how the prepositional clusters are used in natural language communication prevented the students from accessing skills of Conscious Investigation. Noticing, Hypothesising and Experimenting are analytical skills necessary in the process of consolidating what the students have learnt.

At the end of the 12-week study, it can be concluded that students from the control group had only descriptive knowledge or a superficial awareness about the meanings and grammatical usages of prepositional clusters, based on the deictic
nature of prepositions. Further knowledge about the metaphorical nature of prepositional clusters was clearly missing, as was shown in examples of their written work. This leads to a second conclusion: communicative teaching did not extend the basic knowledge of the students about prepositions as a result of the lack of authentic data used, and the absence of investigative-oriented skills. Such evidence indicates and validates part of my hypothesis that communicative teaching only activates superficial descriptive language awareness and is not able to extend this awareness into one of Conscious Investigation.

6.7.2 Results of post-test (1) conducted on the experimental and control groups

The format and structure of the first post-test (see Appendix 9) conducted at the end of the 12-week study was similar to the pre-test (see Appendix 4). The students were given a gap-filling exercise once again, in which they had the choice of using either a prepositional cluster or word/phrases of equivalent meaning. The prepositional clusters and words/phrases of equivalent meaning were exactly the same as the ones used in the pre-test. The only difference was that new sentences were used, still selected from corpus data. The results of post-test (1) for both groups are found in the next page.
Results of post-test (1) for experimental group and control group

<table>
<thead>
<tr>
<th>Name of group</th>
<th>% choosing prepositional clusters</th>
<th>% choosing word or phrase of equivalent meaning</th>
<th>% of wrong answers or questions left unanswered</th>
</tr>
</thead>
<tbody>
<tr>
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<tr>
<td>Student 1</td>
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<td>Student 2</td>
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<td>Student 8</td>
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<td><strong>Control Group (15)</strong></td>
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<td><strong>48.33</strong></td>
<td><strong>29.58</strong></td>
<td><strong>22.09</strong></td>
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</tbody>
</table>
The results of post-test 1 for the two groups (59.58% and 48.33% for experimental group and control group respectively) showed that compared to their performance in the pre-test conducted at the beginning of the study (15.83% and 13.3% for experimental group and control group respectively - See section 6.2.2a), the students of both groups achieved a better score this time round. This was clear from the second set of results of post-test 1 which showed that the teaching methods conducted on both groups had clearly taught reception and comprehension of the meanings of the prepositional clusters. This was demonstrated by the fact that both groups confidently selected prepositional clusters rather than words or phrases of equivalent meaning to fill in the gaps, even though they were given the option of choosing either.

Comments:

Although post-test 1 clearly indicated that students from both groups had done well and showed a marked improvement compared to their previous performance in the pre-test, I found the difference in performance between the two groups in post-test 2 more interesting in terms of the possible reasons and future implications for language pedagogy.

When comparing the performance of both groups for post-test 1, it seemed that students of the experimental group had performed slightly better than those of the control group, (59.58% versus 48.33%) and also had fewer wrong answers (16.25% versus 22.09%). Although the difference in performance between the two groups might not have been significantly large at this point, I suspected that the two teaching approaches conducted on the respective groups were in part responsible for this slight difference in performance. My premise at this point after post-test 1, was that the
control group gave more wrong answers than the experimental group because the communicative teaching approach did not give students enough meaningful exposure to prepositional clusters in terms of the amount of authentic data presented. This is supported by evidence from the analysis of the transcript of the lesson taught using the communicative approach (see Section 6.6.1), where the teacher had clearly relied on her own linguistic experience or even intuition of how a particular prepositional cluster such as better off was used in everyday communication. Furthermore, analysis of the transcript also showed that the teacher had concentrated only on meaning usage of the prepositional cluster but neglected to teach the syntactic word pattern (colligational), collocational features and even metaphorical concepts of these clusters. I suspected that this neglect was in part responsible for the slightly higher percentage of errors made by students in the control group, where there was a lack of practice in activating observation skills regarding language use. Thus, where the students had to choose between a word/phrases or prepositional cluster, they could only rely on what they had remembered from their teacher’s presentation of prepositional cluster usage based on her own linguistic experiences. Consequently they were not equipped with any observational skills of Conscious Investigation to confidently select the appropriate prepositional cluster; instead they chose a word or phrase.

While the lack of observational skills could probably explain the higher percentage of errors made by the students of the control group compared to the experimental group, I also suspected that the communicative teaching approach was responsible for teaching secondary reception and comprehension skills. By secondary reception and comprehension skills, I mean that the students were equipped
with only superficial knowledge of the usages of the 16 prepositional clusters selected during the 12-week study, but not with the skills of Conscious Investigation which they could utilise outside the classroom in order to become independent language observers and users.

Despite my suspicions regarding the results of post-test 1, suffice it to say at this point that both communicative teaching and IOL are both effective in teaching reception and comprehension skills as evidenced by the improvement in results of post-test 1 compared to the pre-test. However, in order to investigate my previous suspicions about the failings of communicative teaching with regard to activating skills of Conscious Investigation, post-test 2 was also given to both the experimental and control groups. The aim of post-test 2 was to confirm through formal assessment whether or not students had acquired the more advanced skills of reception, i.e. observing, noticing and hypothesising, besides those of reception and comprehension through communicative teaching and/or IOL. A fuller discussion of the rationale of conducting post-test 2 and the results is given in the next section.

6.7.3 Results of post-test 2 conducted on the experimental and control groups

As mentioned before, the aim of post-test 1 was to investigate to what extent reception and comprehension had been activated with regard to the meanings and usages of the prepositional clusters taught. This had been investigated by testing whether students were more likely to choose a prepositional cluster or a word or phrase of equivalent meaning. The aim of post-test 2 on the other hand was to formally assess if the skills of Conscious Investigation had been successfully activated and transferred during the 12-week period. Correct answers in post-test 2 would have
implied that the process of Conscious Investigation involving the skills of noticing, hypothesising and experimenting had been activated and transferred successfully when students were faced with a new and unfamiliar set of idiomatic expressions. A point about post-test 2 that needs to be re-emphasised in this section is that students had no previous knowledge of the meanings of the prepositional clusters that they were to be tested on. Besides, even if there was a remote possibility that they might have heard or seen these expressions being used before, the assessment was based on their answers which depended on the data given in the test.

A sample copy of post-test 2 is given in Appendix 10. In this test, students had to analyse the data given and observe the meaning usage of the prepositional cluster on and off. The students were also required to observe other data given for the prepositional clusters by accident, by chance and by coincidence and hypothesise rules for each usage as well as the grammatical function of each cluster. The results of post-test 2 are given in the next 2 pages.
The results of post-test 2 for both the experimental and control groups are shown below. The symbol √ means that the student’s own answer is close to or similar to the right answer. When the symbol √ does not appear, this means that the student’s answer was incorrect or that part of the question was left unanswered.

<table>
<thead>
<tr>
<th>Name of group</th>
<th>Exercise 1: Different meanings of on and off</th>
<th>Exercise 2: by accident, by chance, by coincidence</th>
<th>% of correct answers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental Group (15) inside and outside of</td>
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<td>Student 1</td>
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<td>Student 7</td>
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<td>Student 8</td>
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<tr>
<td>Student 15</td>
<td>√</td>
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<td>√</td>
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<tr>
<td>% of students</td>
<td>46.7</td>
<td>66.7</td>
<td>66.7</td>
</tr>
<tr>
<td>Name of group</td>
<td>Exercise 1: Different meanings of on and off</td>
<td>Exercise 2: by accident, by chance, by coincidence. Grammatical function and rule showing each meaning</td>
<td>% of correct answers</td>
</tr>
<tr>
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<tr>
<td>Control Group (15)</td>
<td>Inside and outside of</td>
<td>Grammatical Function</td>
<td>Rule showing each meaning</td>
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<td>Student 1</td>
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<tr>
<td>% of students</td>
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</tbody>
</table>
The table shows that students from the experimental group performed better than those from the control group with an average score of 65.92%, compared to 45.19% respectively. The difference in average scores of both groups showed that the students from the experimental group performed almost one and a half times better than those from the control group. This difference thus indicated two findings:

- that compared to communicative teaching, IOL was more appropriate to the teaching and learning of prepositional clusters in terms of task-based or discovery-based interaction with real language and
- that compared to communicative teaching, students were more likely to acquire skills of Conscious Investigation from IOL which could be transferred outside the language classroom.

6.8 Limitations of the study and future indications

As mentioned in the beginning of this research, an eclectic approach has been adopted which has sought to integrate and to give emphasis on theory, analysis and practical application to ELT. The results discussed in this Chapter were consequently based on a small scale study. Despite this limitation, this classroom study is indicative of certain future trends in ELT or language teaching, based on the following findings:

- communicative teaching developed only aspects of language awareness concerning vocabulary, grammar, functions of language, differences between written and spoken language, history of language and varieties of English. There was no focus on investigative thinking.
- a small survey conducted showed that most coursebooks used in language classroom had heavier emphasis on reception and comprehension skills than on production
• coursebooks that are used at present in language classrooms did not show any evidence of a systematic development of skills required for progression to a better descriptive language awareness.

• learners who were engaged in task-based or discovery-based interactions with real language were more likely to acquire skills of Conscious Investigation through Investigative-Oriented Learning (IOL) rather than Communicative Teaching. IOL developed skills of Noticing, Hypothesising and Experimenting which encouraged both reception and production strategies.

• the use of authentic examples taken from corpora rather than invented examples by teachers in the language classroom gave students more meaningful exposure to natural language communication. This meant that they were able to develop an awareness of the differences in language use in English and their mother tongue, so as to make informed choices based on the context.

• compared to Communicative Teaching, IOL was better able to equip or empower learners with skills of investigative thinking that can be transferred outside of the language classroom into the real world.

Since the results above could be indicative of prospective trends in ELT, future research could be conducted on a longitudinal scale to include other factors, such as:

• monitoring progress over a longer period of time, so as to evaluate how successful students were in applying and transferring the skills of Conscious Investigation outside of the language classroom in their daily interactions with native speakers of English.

• assessing both oral and written production skills to compare the extent to which Conscious Investigation is activated in each through IOL.
• testing students of various linguistic levels to investigate if IOL can be taught to all levels of language learners.
• isolating which IOL activities were suitable for which levels of students
• analysing the discoursal functions of prepositional clusters from the contexts in which they occur.
• distinguishing the types of prepositional clusters that occur in spoken or written language and their communicative functions.

6.9 Conclusion

From the results and reports of the various procedures conducted during the 12 week study, it was quite clear that compared to communicative teaching, IOL was a more effective pedagogical approach in developing the skills of investigative thinking. Such an inclination to question illustrates the skills of Conscious Investigation. Furthermore, this small study has indicated that IOL rather than CLT is more pertinent to a discovery-based interaction with real language use. In this respect, idiomatic expressions such as prepositional clusters can offer one of the best examples of language use within various social contexts, in which the skills of Conscious Investigation can be activated and honed.

While the aim of this chapter was to validate the sub-hypothesis offered at the beginning of this chapter by bringing together the cognitive, corpus-related and pedagogical aspects of my research, other applications for future research as a result of this eclectic approach should now be addressed. These applications will be discussed in the next and final chapter.
7.0. Introduction

This chapter will focus on some future possibilities that the present research might contribute to. It will provide insights into prospective work conducted in the fields of lexicogrammar, comparative studies across cultures, stylistics, discourse analysis and language competence testing.

7.1 Contribution to lexicogrammar - the organisation of idioms according to word-patterns

In my study, I have isolated many prepositional clusters according to simple and common word patterns that they are found in. One application of my study to the field of lexicogrammar could be to use word patterns from other grammatical words to form idioms, based on topic and also common metaphorical associations. For example, a grammatical category like verbs could be used to organise idiomatic meanings according to simple but common word patterns. One word pattern that is commonly taught is that which forms the phrasal verb: Verb + Prep. However, other common verb patterns that can be formulated, which give idiomatic and even metaphorical meanings are: Verb + and + Verb. Some examples of phrases which show this kind pattern are alive and kicking, give and take, wear and tear, wait and see, touch and go, forgive and forget, live and let live, cut and dried, etc. Another type of verb pattern that is commonly found is: Verb + or + Verb. Some examples of idiomatic and metaphorical phrases are given - give or take, sink or swim, laugh or
cry, make or break, take it or leave it, etc. Their metaphorical usages can then be exemplified.

The above word patterns can be done for different categories such as nouns, adjectives/adverbs and prepositions, where first the word pattern is isolated and then the metaphorical meaning is given. Examples of their syntactic usage and collocational preferences can also be given so as to enable appropriate and accurate usage.

In terms of learning, this application can be of benefit to students because it combines vocabulary and grammar learning together. Furthermore it also suggests that most language usage is memorised in phrasal units rather than single words.

7.2 Comparative Studies of Prepositional Cluster Usage across Cultures

In Section 3.5, I described the semantic relationship between prepositional constituents in the cluster by applying prototype theory and conceptual categorisations of the world according to human experience. Whilst selection and analysis of the prepositional clusters in this study have been based on conventional cultural concepts experienced by native speakers of English, comparative studies in language learning and culture could extend this work further. They could seek to establish if speakers from different cultures use similar or different kinds of prepositional clusters as those found in English to express the same kind of human experience. In fact, this aim could even be pursued in the language classroom, to extend investigative thinking in students via some consciousness raising exercises. For example, activities could be designed where EFL students could compare and contrast the literal and figurative usages of prepositional clusters in English and in their own native languages. Also,
students could compare and contrast spoken and written usages of prepositional clusters between English and different languages. While the investigative-oriented tasks designed in this study focused on form and meaning aspects of language (see Section 5.6.2 and Appendix 5), the comparative tasks described above would be suited for advanced learners of English. This is because learners need to have a fairly high ability and experience in the communicative skills of English; especially in reading, writing and speaking. This ability and experience in communication is a prerequisite for comparison studies because students would not be struggling with basic comprehension and reception whilst doing contrastive investigation. Below are three examples of some investigative-oriented activities which are suitable for advanced learners of English:

**Activity 1:**

Read the following examples of how some expressions containing prepositions are used in English - *up and up, up and coming*. Try and work out the meanings of these expressions from the sentences given and write out equivalent expressions in your own language, which convey the same meaning.

- He wandered from room to room without aim, and without knowing whether he was on the top floor or in the basement, 'just up and up and on and on and on'.

- Prices have gone *up and up* for as long as Texas can remember.
• 'Our marriage has its ups and downs, but it is mainly on the up and up', observes Gould.

• But since then Oxford have been on the up and up.

• Academicians and up and coming young stars were offered honoured commissions for which they were well paid.

• Ipsos is probably one of the most up and coming resorts we know of.

• Luciano Pavarotti took a night off from his sell-out performances of Tosca at Covent Garden last month to appear at a Masterclass for four up and coming young singers.

**Activity 2:**

Indicate whether in your own language there are phrasal expressions which use the preposition “up” and, if so, list as many of them as you can. Do you agree with the concept that “anything that is UP is always good”?

**Activity 3:**

The English sentence “I read it in the newspaper” is different from its Italian and Malay equivalents. In Italian, you would say, “l’ho letto sul giornale” which means “I read it on the newspaper” whereas in Malay, you would say “Saya baca dalam suratkhabar” which means “I read it inside the newspaper”. Also, you would say in
Italian "Il gatto è bloccato sull'albero", which means "The cat is stuck on the tree", or in Malay "Kucing di dalam pokok", which means "The cat is stuck inside the tree", whereas in English, you would say "The cat is stuck in the tree".

**Question:** Make a list of two or three prepositions in your language that are used differently compared to English. Are the differences due to the meaning the prepositions have in your language or culture, compared to English?

**General Comment about Activities:** The three activities are designed to raise consciousness about contrastive usage of prepositions, either as phrasal or single units between the students' own languages and English. The language payoff would be a better understanding or reception to the differences of prepositional usage in English and in their own native language.

### 7.3 Contribution to Discourse Analysis

A further implication of my study for future investigation is in the area of discourse analysis. Currently, research is being carried out on classifying lexical items according to speaker relations, discoursal topic, conversational functions\(^1\), etc. The present study could contribute its findings by providing information not only about common figurative usages of fixed expressions such as prepositional clusters, but their communicative functions in spoken language and contexts of use especially in informal situations and how they can be employed for stylistic purposes.

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\(^1\) the CANCODE project carried out between Cambridge University Press and Nottingham University is currently working on the social aspects mentioned.
7.4 Textual Language Competence

Studies on language performance testing have been quite extensive, especially with regard to communicative competence. Earlier studies on communicative competence (see Hymes, 1971, 1973; Munby, 1978; Canale and Swain, 1979; Savignon, 1983 and Canale, 1983) have distinguished between competence and performance. These studies have found that communicative language competence is multi-faceted, consisting of components which give the language user knowledge and ability to use this knowledge in appropriate, contextualised communicative language use (see Candlin, 1986). Bachman’s (1990) tree model of language competence has been used to extend Candlin’s work, in which he identifies two main kinds of competence - organisational and pragmatic - each of which is subdivided into two other components. Thus, sub-components of organisational competence are grammatical and textual competence while those of pragmatic competence are illocutionary and sociolinguistic competence.

While recent studies have focused on some of the aspects of language competence mentioned above, the findings of the present study can begin to contribute to the development in aspects of textual competence. Important works on textual aspects have focused primarily on cohesion, rhetorical organisation and discourse analysis in spoken and written texts (see Sinclair and Coulthard, 1975; Grice, 1975; Halliday and Hasan, 1976; van Dijk, 1977; Brown and Levinson, 1978; McCrimman, 1984, etc). If textual competence can be defined as abilities related to textual aspects, the positive results shown by the introduction of Investigative-Oriented Learning (IOL) in the activation of investigative thinking indicate promising developments in textual competence testing.
The testing aspects in textual competence that I am indicating are the sensitivity to naturalness and the ability to use figurative language to create rhetorical effects in written and spoken texts. I am convinced that IOL can contribute especially to the planning and assessment component of future work on textual competence testing.

In the planning component, the selection of items to be tested, such as grammatical items, lexical items, figurative language, etc, have to be retrieved first. In my study, I retrieved corpus data on fixed expressions consisting of prepositional clusters which had metaphorical usages, and formulated IOL tasks of analysis to develop conscious investigative skills (see Section 6.1). Thus, in general, the textual competence goal which students have to achieve, e.g. sensitivity to naturalness, interpretation of figurative language and their rhetorical effects, can be planned. The planning stage would include the selection of items needed to lead to the realisation of this goal and the skills necessary to activate them using IOL tasks.

With regard to the assessment of textual competence, the evaluation procedures used in IOL (see Sections 6.7-6.7.3) that have been employed in the present study could contribute to future work on textual competence testing. The textual competences that can be assessed by means of IOL are the sensitivity to naturalness and the interpretation of figurative language and its effects. Since these competences are skill-based, rather than knowledge-based, evaluation should aim to assess the extent to which these skills have been acquired or activated. This kind of skill-based evaluation is thus an indirect assessment of the language user’s language competence.
Examples of skill-based assessment tasks in IOL could be in written or spoken form, and the evaluation of sensitivity to naturalness could be based on the appropriate and accurate use of form and structures. Evaluation of how figurative language is used effectively in rhetoric can also be done, through tasks where students engage in written assignments or oral presentations, and where they construct a particular identity/role for themselves based on the topic. Other forms of skill-based assessment tasks are through discourse analysis, where evaluation depends on the textual competence goal to be achieved, such as analysis of how power, ideology and social relations are conveyed in the texts.

7.5 Conclusion

The present study has attempted to provide insights which could be of use within the linguistic-pedagogical trends of today. It does not claim to offer a comprehensive response, but it is hoped that the findings and applications discussed can open up other possibilities for further research.
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