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LEXICAL PHRASES IN THE INTRODUCTIONS OF ENGLISH RESEARCH ARTICLES

(YÜKSEK LİSANS TEZİ)

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Nurcan İleri'ye ait Lexical Phrases in the Introductions of English Research Articles (İngilizce Araştırma Makalelerinin Giriş Bölümlerindeki Sözcük Öbekleri) adlı çalışma, jürimiz tarafından Yabancı Diller Eğitimi Anabilim Dalı, İngiliz Dili Eğitimi Bilim Dalında Yüksek Lisans tezi olarak kabul edilmiştir.

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Nurcan İLERİ

(MA Thesis)

ABSTRACT

This study investigates lexical phrases that realise certain 'global' discourse functions in research article introductions in the area of applied linguistics. The study aims to devise a reference list for novice research article writers especially those who are non-native speakers of English. The data consist of 20 research article introductions from four journals in the field of applied linguistics. Two analyses were performed on the data: function analysis and lexical phrase analysis. In the function analysis, Swales' (1990) Create A Research Space, (CARS) model was used to find the discourse functions of sentences in which the lexical phrases were embedded. 'Moves' and 'steps' in the model are equal to the global discourse functions in the introductions in the data. They also named the lexical phrase functions in the data. In the lexical phrase analysis, lexical phrases within the sentences for the given functions were identified. The results showed that three-fourths of the introductions consisted of lexical phrases signifying that research article introductions are very formulaic. The study also presented a comprehensive list of lexical phrases in the research article introductions in the data which can be used as reference material especially for non-native writers when writing English research article introductions.

Key words: Formulaic language; Multi-word units; Lexical phrases

İNGİLİZCE ARAŞTIRMA MAKALELERİNİN GİRİŞ BÖLÜMLERİNDEKİ SÖZCÜK ÖBEKLERİ

Nurcan İLERİ

(Yüksek Lisans Tezi)

ÖZET

Bu çalışma uygulamalı dilbilim alanındaki araştırma makalelerinin giriş bölümlerindeki belirli genel söylem fonksiyonlarını gerçekleştiren sözcük öbeklerini araştırmaktadır. Çalışma özellikle anadili İngilizce olmayan deneyimsiz araştırma makalesi yazarları için bir referans listesi oluşturmayı amaçlamaktadır. Data uygulamalı dilbilim alanındaki dört dergiden seçilen 20 araştırma makalesinin giriş bölümlerinden oluşmaktadır. Data üzerinde iki analiz uygulanmıştır: fonksiyon analizi ve sözcük öbeği analizi. Fonksiyon analizinde içlerinde sözcük öbeklerinin yer aldığı cümlelerin söylem fonksiyonlarını bulmak için Swales' in (1990) "Bir Araştırma Alanı Yarat" (CARS) modeli kullanılmıştır. Modeldeki 'hareket'ler (moves) ve 'adım'lar (steps) datadaki giriş bölümlerindeki genel söylem fonksiyonlarına denktir. Bunlar datadaki sözcük öbeği fonksiyonlarını da isimlendirmiştir. Sözcük öbeği analizinde, belirlenen fonksiyonlar için cümlelerin içindeki sözcük öbekleri tespit edilmiştir. Sonuçlar giriş bölümlerinin dörtte üçünün sözcük öbeklerinden oluştuğunu göstermektedir. Bu da araştırma makalelerinin giriş bölümlerinin oldukça formülleşmiş olduğunu gösterir. Çalışma ayrıca özellikle anadili İngilizce olmayan yazarlar için araştırma makalelerinin giriş bölümlerini yazmada bir referans malzemesi olarak kullanmak üzere datadaki araştırma makalelerinin giriş bölümlerindeki sözcük öbeklerinin kapsamlı bir listesini sunmaktadır.

Anahtar Kelimeler: Formülleşmiş dil; Çok sözcüklü birimler; Sözcük öbekleri

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ABBREVATIONS

Abbrevation	Full Form
AL	Applied Linguistics
CARS	Create a Research Space
ESP	English for Specific Purposes
LL	Language Learning
MLJ	The Modern Language Journal
MWU	Multi-word Unit
n	number
RA	Research Article
SSLA	Studies in Second Language Acquisition

1. CHAPTER: INTRODUCTION

In recent years, multi-word units (MWUs) have been recognised to be an essential component of effective language use. A MWU is "a string of words with a single meaning" (Schmitt 2000: 97). The following are examples of MWUs cited in the literature: "Rubber stamp" (Moon 1997: 45), "give up" (Moon 1997: 45), "kick the bucket" (Moon 1997: 47), "you know" (Moon 1997: 47), "to make a long story short" (Schmitt 2000: 101). MWUs are essential in effective language use for two reasons. First, they help to increase fluency in spoken as well as written discourse as they are stored in the long term memory as chunks, and are ready for use when necessary (Schmitt 2000: 101). Therefore, the speaker or the writer can quickly access them while speaking or writing. This serves to decrease the processing load of the brain. Thus, mind can be free to focus more on meaning than form, and on creating new utterances. Second, MWUs enhance the understanding of the hearer and the reader. They represent the same meaning both for the speaker / writer and the hearer / reader as they are shared lexical patterns, i.e., conventional language forms, in a language community. As the hearer / reader can easily understand the part of the message of the speaker / writer in which these conventional forms (i.e., MWUs) are used, he / she can direct his / her attention to the part in which nonconventional forms are used. This helps both parties to establish a kind of communication that flows smoothly.

From among the types of MWUs, the most important one is perhaps lexical phrases. They differ from other types of MWUs [i.e., compounds, phrasal verbs, idioms, and fixed phrases (Moon 1997)] in that they have discourse functions. In discourse, they signal the speaker / writer's intention in a conventional way, which helps the message to be conveyed unambiguously. Therefore, the use of lexical phrases increase the possibility that speaker / writer's intention and hearer / reader's perception will match.

Acquisition of lexical phrases is also very important in a second language for successful communication. These have a more significant role in written discourse than spoken discourse for second language learners. In spoken discourse, if a lexical phrase is unavailable to a learner, he can use other means to convey his intention (e.g., gesture,

facial expressions, and tone of voice). Also, the speaker has a chance to get feedback from the hearer. He can reformulate his intention according to the feedback. It means that he still has other sources for keeping the conversation on the right route even though he cannot use the conventional means (i.e., lexical phrases) of communication. However, in written discourse, the writer is dependent on language to express his intentions. He should state these intentions in an unambiguous way as he will have no chance for repair. Use of conventional means (i.e., lexical phrases) will increase the clarity of the message. Therefore, language learners need to learn the lexical phrases that perform certain functions in written discourse.

The use of lexical phrases seems particularly important in expository writing, which is one type of written discourse that requires clear expression of complex ideas. This need is perhaps in its highest in one of this type of discourse, which is research articles (RAs). RAs necessitate the use of lexical phrases for two reasons. First, lexical phrases like other MWUs help to increase unambiguity and fluency in spoken and written discourse, which suggests that clarity and fluency will also be enhanced in RAs when lexical phrases are used. Second, lexical phrases help the RA author to write his paper according to the conventions of the disciplinary community that he addresses (Hyland 1998: 440). In other words, he has to answer the expectations of the academics of his field concerning rhetoric. Therefore, RA authors can increase the chance to publish in their fields and be accepted by the members of their academic society by using lexical phrases in their research papers (cf. Hyland 1998: 439).

It is observed that second language writers have a difficulty in publishing their research papers in English. Use of lexical phrases to fulfil discourse functions specific to RAs need to be investigated as this might be the reason for this difficulty in publishing. A norm is needed against which to compare the lexical phrase use of second language writers for certain discourse functions in RAs. The use of lexical phrases by native speaker writers needs to be investigated first to establish a baseline against which to compare to what extent second language writers deviate from the norm. In other words, this investigation should focus on determining the lexical phrases that native speakers use to perform certain discourse functions in RAs.

There is little descriptive research on lexical phrases in written discourse. Nattinger and DeCarrico (1992) examined the lexical phrases in three types of written discourse: formal essays, informal letters, and business letters. Hyland (1998) investigated the use of metadiscourse in English RAs in four academic disciplines and demonstrated that there were variations across disciplines in metadiscourse functions. Metadiscourse is defined as "those aspects of the text which explicitly refer to the organisation of the discourse or the writer's stance towards either its content or the reader" (Hyland 1998: 438). The examples of metadiscourse are: *therefore* (logical connective), *finally* (frame marker), *Z states* (evidential), *in other words* (code gloss), *it is possible* (hedge), *definitely* (emphatic), *I agree* (attitude marker), *note that* (relational marker) (Hyland 1998: 442). Although metadiscourse looks very similar to a lexical phrase, it differs from a lexical phrase in that it can consist of only one word. Also, metadiscourse functions are limited to the sentence level while lexical phrases perform functions in text level. In other words, metadiscourse organises the discourse at a local (i.e., sentence) level, and combines single propositions to each other. However, lexical phrases have a global function in organising discourse. They are used to make connections between larger units of information instead of single propositions. Although it is not directly related to lexical phrases, the work by Swales (1990) offers a good starting point for lexical phrase analysis in RAs. Swales studied structural organisation of RA introductions in different disciplines, and proposed the Create a Research Space (CARS) model. The skeletal examples for discourse functions, which he calls "moves" and "steps", correspond to lexical phrases in terms of both form and function.

Although all of these studies suggest implications for lexical phrases, there is no research in literature specifically investigating lexical phrases in RAs. This study aims to develop a complete list of lexical phrases in English RA introductions in the area of applied linguistics. In the analysis of the data, Swales' (1990) CARS model will be used for determining the lexical phrase functions, and the categorisation of lexical phrases proposed by Nattinger and DeCarrico (1992) will be used in identifying types of lexical phrase.

2. CHAPTER: REVIEW OF LITERATURE

This chapter consists of three sections. In section 2.1., background information concerning MWUs will be given. This is considered to be necessary as lexical phrases are one type of MWUs. In section 2.2., lexical phrases will be discussed in detail. Finally, in section 2.3., research on RA introductions will be reviewed as this study is an examination of lexical phrases in introductions of RA genre.

2.1. Multi-word Units

MWUs are formulaic sequences, and it is observable that literature offers many terms to describe formulaicity. Wray (2000; see also Wray & Perkins 2000) presents a list of these terms whose number goes beyond 40 (See Table 2.1. below).

Table 2.1. Terms used to describe formulaicity in the literature

-amalgams	-gestalt	-ready-made expressions
-automatic	-holistic	-ready-made utterances
-chunks	-holophrases	-recurring utterances
-clichés	-idiomatic	-rote
-co-ordinate constructions	-idioms	-routine formulae
-collocations	-irregular	-schemata
-composites	-lexical(ized) phrases	-semi-preconstructed phrases that constitute single choices
-conventionalized forms	-lexicalized sentence stems	-sentence builders
-FEI [fixed expressions including idioms]	-multiword units	-stable and familiar expressions with specialized subsenses
-fixed expressions	-non-compositional	-stereotyped phrases
-formulaic language	-non-computational	-stereotypes
-formulaic speech	-non-productive	-stock utterances
-formulas/formulae	-non-propositional	-synthetic
-fossilized forms	-petrifications	-unanalysed chunks of speech
-frozen metaphors	-praxons	
-frozen phrases	-preassembled speech	
-gambits	-prefabricated routines and patterns	

Although all of these terms are used to refer to formulaicity, it is questionable if all of them are used in the same meaning. For example, terms such as multi-word units, formulaic language, and formulaic speech seem to have a more general sense when compared to others like collocations, idioms, frozen metaphors, or clichés. This

suggests that some of the terms in this list are used as general terms for describing formulaicity, and that others are used to refer to more specific aspects of the phenomenon. In this study, the term "multi-word unit" will be used as a general term to refer to formulaic sequences.

It is essential to clarify what should be understood by the term multi-word unit before presenting criteria for them and overviewing their types. A MWU is one type of lexical unit. The term "lexical unit" was first introduced by Cruse (1986) as an alternative to "word", and was first used by Bogaards (2001) in a second language learning context. The term word has always been a widely discussed issue in second language vocabulary acquisition literature as well as in first language acquisition. Although there have been many arguments and discussions on this term, it has always been a vague notion. However, using the term "lexical unit" instead of "word" seems to clear away the vagueness that the term "word" presents. Cruse (1986: 77) defines a lexical unit as "the union of a lexical form and a single sense". In polysemous words that have more than one meaning, each sense is represented by a different lexical unit. In contrast, MWUs have more than one orthographic word, but are considered to be single lexical units as they have only one meaning. As such, they function as single words in the language. Having this feature, MWUs have a word status in the lexicon. It means that they are considered to belong to lexicon, not to grammar. In their first use, i.e., before they were accepted as MWUs, they perhaps were formed according to the rules of grammar. However, it is clear that grammar rules no longer functions as they became formulaic. It means that the idiom principle (Sinclair 1991) operates for MWUs, not the open-choice principle (Sinclair 1991). In other words, they are not formed again by using grammar rules each time they are used, but are selected from the lexicon like other single words, and used with no change, or with minimal change.

It seems necessary to establish criteria for MWUs to distinguish them from other lexical units. Such criteria have been proposed by Moon (1997). She suggests three criteria for MWUs: institutionalisation, fixedness, and non-compositionality. Institutionalisation refers to the degree of conventionalisation of a MWU in the

language (Moon 1997: 44). It means that it needs to be used in similar form and with the same meaning by the speakers of a language (Schmitt 2000: 97).

A sequence also needs to be fixed to some extent to be called a MWU (Moon 1997: 44). Fixedness is the degree to which changes are allowed. All MWUs have some degree of fixedness, but this changes according to the type of the MWU. Some types such as idioms have a more fixed nature when compared to others (Schmitt 2000: 97). However, there is also variation in the category of idioms with respect to fixedness. For example, *spill the beans* is a highly fixed idiom, i.e., it only lets an inflectional change in its verb. It will lose its unitary meaning when there is any change in its constituent words, e.g., *pour the beans*. However, *kick the bucket* (i.e., to die) is a more flexible idiom in that it enables to form another unit having the same meaning, that is *kick off* (Schmitt 2000: 97).

MWUs may also vary in their degree of non-compositionality. The meaning of a MWU which is non-compositional cannot be comprehended by analysing its component words (Moon 1997: 44). The words in such a MWU lose their literal meanings, and they are treated as a sequence having "a specialised unitary meaning" (Moon 1997: 44). This is a semantic type of non-compositionality. For example, an analysis of the meanings of the words in *spill the beans* will not help to infer its meaning as the words together form a single semantic unit that has a metaphorical meaning. There are also two other types of non-compositionalty: syntactic non-compositionality (Wray 1999: 215), and pragmatic non-compositionality (Moon 1997: 44). Syntactic non-compositionality refers to the ungrammaticality of a MWU (Wray 1999: 215). *As it were*, *by and large*, and *of course* are examples of MWUs that are syntactically non-compositional. It is not possible to work out the meaning of these MWUs by a grammatical analysis as they do not confirm to the grammar rules of English. Pragmatic non-compositionality is related to the "pragmatic specialisation" (Moon 1997: 44) of a MWU. In other words, a MWU that is pragmatically non-compositional functions in a non-linguistic situational context. For example, *Take care!* (Moon 1997: 44) is pragmatically non-compositional as it has a pragmatic use instead of a semantic meaning.

Although it seems that there is not a well-established categorisation of MWUs, some useful categorisations have been proposed by researchers such as Nattinger and DeCarrico (1992), and Moon (1997). Types of MWU suggested are compounds, phrasal verbs, idioms, fixed phrases, clichés, non-canonical phrases, and lexical phrases.

Compounds are one type of MWU that consists of more than one word, and is treated as a single lexical item (Moon 1997: 44). There is not a single conventional spelling for many compound words, but they are written in three different ways: as more than one orthographic word, a single orthographic word, or hyphenated words (Schmitt 2000: 99). For example, the compound *car park* can also be written as *carpark*, or *car-park* (Moon 1997: 45). A compound word can be a noun (e.g., *Prime Minister*), a verb (e.g., *rubber-stamp*), or and adjective (e.g., *long-haired*) (Moon 1997: 45). Compounds are very important in the language in that they are used to create new words from old like *blackmail*, *Walkman*, *drop by*, and *off-day* (McCarthy 1990: 101 cited in Schmitt 2000: 99).

Phrasal verbs are formed by a monosyllabic verb such as *get*, *take*, *put*, *come*, and *go*, and an adverbial or prepositional particle such as *up*, *out*, *off*, *in*, *on*, and *down* (Moon 1997: 45). Some phrasal verbs are easy to understand as their constituent words are used in their literal meanings (e.g., *go back*) while it is not possible to work out the meaning of others by considering the meaning of their components (e.g. *go through* - means to experience something bad, but does not mean to pass through a place) (Schmitt 2000: 99).

Another type of MWU is *idioms* which are relatively fixed expressions, and whose meanings cannot be interpreted from the meanings of their constituents (Moon 1997: 46). Use of metaphors is a typical characteristic of idioms. The metaphors in some idioms are very easy to work out (e.g., *bite off more than one can chew*, or *a snake in the grass*) while the ones in others are almost uninterpretable (e.g., *kick the bucket*, or *raining cats and dogs*) (Moon 1997: 46-47).

As it can be understood from the name of the term, *fixed phrases* have a frozen sequence while their meanings are usually easily derived (Schmitt 2000: 99). Lexical items such as *at least*, *in fact*, *of course*, and *by far* are examples of fixed phrases (Moon

1997: 47). Moon (1997: 47) also includes in this category greetings and pathics (e.g., *good morning*, *how do you do*, *excuse me*, and *you know*), similes (e.g., *white as a sheet*, and *dry as a bone*), and proverbs (e.g., *it never rains but it pours*, and *enough is enough*).

Clichés are lexical items that are longer than idioms, and whose meanings can be worked out from the meanings of their components (Nattinger & DeCarrico 1992: 33). The examples are *there's no doubt about it*, *a good time was had by all*, and *have a nice day* (Nattinger & DeCarrico 1992: 33).

Lexical phrases that are also one type of MWU differ from other types in that they have discourse functions (Nattinger & DeCarrico 1992: 36). For example, the idioms *kick the bucket*, *spill the beans*, and *it's raining cats and dogs* do not realise any function in discourse. However, *in short*, *have a nice day*, and *by the way* are used to perform certain discourse functions, i.e., summarising, parting, and topic shifting respectively.

2.2. Lexical Phrases

In this section, three sub-topics will be considered: structural criteria for categorising lexical phrases, types of lexical phrases, and functional groups of lexical phrases. However, it is essential to define lexical phrases, and discuss the terms used for them first.

A lexical phrase can be defined as "a string of words used to perform certain discourse functions". Many terms have been used to refer to lexical phrases such as holophrases (Corder 1973), prefabricated routines and patterns (Hakuta 1974), prefabricated routines (Bolinger 1976), formulaic speech (Wong-Fillmore 1976), routine formulae (Coulmas 1979), gambits (Keller 1979), conventionalised language forms (Yorio 1980), memorised sentences and lexicalised stems (Pawley & Syder 1983), lexical chunks (Lewis 1993), formulas (Ellis 1994), and prefabs (Moon 1997). However, it is not clear if all these terms refer to the same thing, and if they do, it is questionable if they really describe lexical phrases, or used as a general term to cover all MWUs. Therefore, the term proposed by Nattinger and DeCarrico (1992), i.e., lexical phrases, will be used in this research.

2.2.1. Structural criteria for categorising lexical phrases

Nattinger and DeCarrico (1992: 38) suggest four criteria for the categorisation of lexical phrases. The first one is related to the "length" and "grammatical status" of the phrase. Lexical phrases range in length, and this determines their grammatical status. Some of them are short, i.e., at word-level such as *by the way*, and *in summary* while others are longer, i.e., at sentence-level such as *have a nice day*, and *my point is that X*.

The second criterion for categorising lexical phrases concerns if the phrase has "a canonical or non-canonical shape", i.e., if it is grammatical or ungrammatical. Lexical phrases also differ in being canonical. For example, lexical phrases like *how are you?*, and *that reminds me of X* are canonical, but those like *as it were*, and *long time no see* have a non-canonical shape.

The third criterion relates to whether the lexical phrase is "variable or fixed". Some types of lexical phrase are very fixed in form (e.g., *beside the point*, and *how do you do?*), but others have differing degrees of variability (e.g., *_as well as _*, and *it's only in X that Y*).

The last criterion concerns whether the lexical phrase is "continuous or discontinuous", i.e., whether "it consists of an unbroken sequence of words or whether it is interrupted by variable lexical fillers" (Nattinger & DeCarrico 1992: 38). Lexical phrases like *a watched pot never boils*, and *so far so good* are continuous sequences. However, phrases like *once upon a time ... and they lived happily ever after*, and *to make a (very) long story (relatively) short* have a discontinuous sequencing.

2.2.2. Types of lexical phrase

Among MWU types, lexical phrases are the one on which there was the least number of investigations. However, a number of form-based taxonomies of lexical phrase have been proposed (e.g., Becker 1975; Bolinger 1976; Coulmas 1979, 1994; Hatch et. al. 1979; Howarth 1998; Lattey 1986; Moon 1992, 1998; Nattinger & DeCarrico 1992; and Yorio 1980). Of these taxonomies, the one proposed by Nattinger and DeCarrico (1992) is the best-known and the most useful. They suggest that lexical

phrases have four types: polywords, institutionalised expressions, phrasal constraints, and sentence builders.

Polywords

Polywords are word-level phrases that are completely frozen and continuous forms. They can be both canonical (e.g., *in a nutshell*, *by the way*, and *beside the point*), and non-canonical (e.g., *as it were*, *by and large*, and *all in all*). It seems necessary to refer to discourse markers at this point because polywords are very similar to discourse markers in shape and function. However, there are some basic differences between them. Lenk (1997: 3) defines discourse markers as "short, typically one- to three-syllable items which are used with a pragmatic meaning that differs from the propositional meaning these same items can have in another conversational context". This suggests that a lexical item must have a pragmatic meaning, and a propositional meaning as well to be accepted as a discourse marker. Typical examples are *you know*, and *I mean*, and these can be used either as discourse markers or as lexical items with their propositional meanings. On the other land, polywords have only discourse functions, but do not have usages as lexical items with propositional meanings. It means that any polyword that is used will always realise a function in discourse.

Institutionalised Expressions

Institutionalised expressions are one type of lexical phrase that are sentence length and fixed. Most of them are canonical (e.g., *nice meeting you*, *give me a break*, and *how are you*?) and continuous. There are also some non-canonical examples of institutionalised expressions such as *what, me worry?*, *long time no see*, and *be that as it may*. Institutionalised expressions contain proverbs, aphorisms, and formulas for social interaction (Nattinger & DeCarrico 1992: 39).

Phrasal Contraints

Phrasal constraints are word-level lexical phrases like polywords. They differ from polywords in that they allow variability of differing degrees. Most phrasal constraints are continuous. They can be both canonical (e.g., *as far as I_*, *see you_*, and *_as well as_)*, and non-canonical *(e.g., the_er the_*er, and *for better or (for) worse)*.

Sentence Builders

Sentence builders are sentence level lexical phrases that form frames for whole sentences. They are highly variable, and often discontinuous. These two features are those that distinguish sentence builders from instutionalised expressions. They are mostly canonical (e.g., *I think (that) X, let me start by / with X,* and *that reminds me of X*).

2.2.3. Functional groups of lexical phrases

Nattinger and DeCarrico (1992) distinguish three functional groups of lexical phrases. These are social interactions, necessary topics, and discourse devices. Social interactions group includes lexical phrases that are used to describe social relations (Nattinger & DeCarrico 1992: 60). It has two sub-groups: conversational maintenance, and conversational purpose. Lexical phrases of conversational maintenance are used to perform functions found in conversational interaction (Nattinger & DeCarrico 1992: 60). These functions concern how conversations begin, continue, and end. Examples of lexical phrases of conversational maintenance are *excuse me* (summoning), *nice meeting you* (closing), *see you later* (parting), and *all right?* (checking comprehension). Conversational purpose group includes speech acts (Nattinger & DeCarrico 1992: 62) such as questioning (e.g., *do you X?*), refusing (e.g., *of course not*), and complying (e.g., *I'd be happy to*). The second group of lexical phrases is necessary topics. These are topics that are frequently asked to second language learners, and essential to know for use in daily conversations (Nattinger & DeCarrico 1992: 63). Examples of lexical phrases of necessary topics are *my name is_* (autobiography), *I don't speak _ very well* (language), *how much is_ ?* (shopping), and *how far is_*? (location). The last functional group of lexical phrases is discourse devices that "connect the meaning and structure of the discourse" (Nattinger & DeCarrico 1992: 64). These are functions such as logical connectors (e.g., *as a result (of X)*), fluency devices (e.g., *as a matter of fact*), exemplifiers (e.g., *in other words*), and summarisers (e.g., *to make a long story short*).

2.3. Research on Research Article Introductions

Although there is very limited research on RA introductions, research in this area seems to have developed in two directions. The first group of studies has focused

on discourse organisation of RA introductions (e.g., Swales 1990; Samraj 2002) while the second group has turned their attention to the discourse function of lexical items in the introductions of RAs (e.g., Hyland 1998; Gledhill 2000). Swales (1990) examined the discourse organisations of RA introductions in different academic fields by using a model called the CARS model which was proposed by himself. He found that most of the introductions he examined fitted the model signifying that the CARS model worked well in analysing structural organisation of RA introductions. In another study on RA introductions, Samraj (2002) investigated if there was organisational variations in RA introductions across disciplines, and if Swales' CARS model was applicable to RA introductions from different disciplines. The results of her study demonstrated that there were disciplinary variations in the organisation of RA introductions. The results also suggested that a modification in the CARS model was necessary to account for the structure of RA introductions from different disciplines. Hyland (1998) investigated the use of metadiscourse functions in the RAs of different academic disciplines. He provided evidence that there was a variability across academic fields in metadiscourse use that suggests that metadiscourse use depends on rhetorical context. Gledhill (2000) examined collocations in the introductions of RAs, and found that they were used to perform certain functions in RA introductions.

It is important to indicate that this study has something in common with the studies in the first group as all of them investigate RA introductions. However, the present study differs from them in that it investigates lexical phrase use in RA introductions while others examine discourse organisation of RA introductions. It is essential to note that the functions investigated in the studies in the second group refer to the 'local' level functions in the discourse of RA introductions. In contrast, the present study investigates lexical phrases that realise certain 'global' discourse functions in RA introductions. The investigation was limited to the field of applied linguistics in the light of the findings that indicated interdisciplinary variation. The study aims to devise a reference list for novice RA writers especially those who are non-native speakers of English. In addition, the following research questions are sought answers to.

1. Are lexical phrases pervasive in RA introductions in the area of applied linguistics?
2. Are there any differences across discourse functions?
3. Is there a difference in the distribution of lexical phrase types?

3. CHAPTER: METHODOLOGY

In this chapter, information regarding "data" and "analysis" will be given under separate titles. The "analysis" section includes descriptions of the function analysis and the CARS model (Swales 1990) which is linked to the function analysis, and also the lexical phrase analysis.

3.1. Data

The data for the study include 20 research article introductions from four journals in the area of applied linguistics (See Appendix I for the list of journals and articles used in the data). The data include articles from a single area to control for differences across genres as every genre is claimed to have its own characteristic expressions (see Hyland 1998). Journals were selected from among those that were the most popular in the field. The number of research articles from each journal was kept equal (i.e., five articles from each journal) as the use of lexical phrase might differ among the journals. The data were in computerised form. The introductions in the data were initially in the PDF format. They were converted into the text format for ease of analysis of the data.

Only the articles whose authors were native speakers of English were included in the data. It was decided whether the authors were native speakers of English, or not by looking at the origin of their names. Articles whose authors had Anglo-Saxon names were selected for the study. To confirm if they were really native speakers of English, all the authors except one were inquired about this through e-mail, and all who replied confirmed that they were native speakers of English. The author who was not sent an e-mail was identified to be a native speaker of English from her CV in her web site. Four authors who did not reply to the e-mail message were simply assumed to be native speakers of English by their names. It was important to use articles of native speakers of English in the data since native speakers were considered to have a better productive control of lexical phrases as well as the language at large than non-native speakers. In the selection of articles for the data, articles with single authors were preferred because

the use of lexis might change from one author to the other, and it would not be possible to know who wrote a given part of the article as no information on this is provided.

Also in the article selection, articles that presented empirical studies were included in the data. This was mostly because lexical phrases would reveal a similar pattern in these studies as their designs were also similar. Articles were tried to be selected from the most recent issues, but less recent issues were also checked when there was no article that was suitable with respect to the expected criteria in the most recent issues. As a result, the data contained articles published between 1999 and 2003. The details of the number of articles used in the data according to their years of publication are given below in Table 3.1.

Table 3.1. Number of articles in the data regarding years of publication

	1999	2000	2001	2002	2003
AL	1	1	1	2	
LL			1	2	2
MLJ					5
SSLA				2	3

Note. AL = Applied Linguistics, LL = Language Learning, MLJ = The Modern Language Journal, SSLA = Studies in Second Language Acquisition.

All of the articles that belong to MLJ in the data were found in the issues that were published in 2003. However, earlier volumes, i.e., volumes back to 1999, in AL had to be searched in order to find articles that met the required criteria.

The length of the introductions of the data ranges from 5 sentences to 56 sentences. The AL journal has the longest introductions with a mean number of 24.4 sentences while LL contains the shortest introductions with an average number of 15.4 sentences. Also, MLJ has the second longest introductions with a mean length of 19.4 sentences, and SSLA follows MLJ with an average number of 22.6 sentences. The mean number of sentences in all data was 20.45. Table 3.2. demonstrates the length of introductions in the data.

Table 3.2. Length of introductions in the data

Journal Name	Article Code Number					Mean Length
	1	2	3	4	5	
AL	16	23	29	32	22	24.4
LL	25	5	12	18	17	15.4
MLJ	30	14	7	15	31	19.4
SSLA	8	10	11	28	56	22.6
All Journals						20.45

Note. The numbers in the table represent number of sentences.

3.2. Analysis

In the study, two analyses were performed on the data: function analysis and lexical phrase analysis. The function analysis was done on the data first, and this was followed by the lexical phrase analysis. A function analysis was necessary in order to do the lexical phrase analysis. As lexical phrases are multi-word units which have discourse functions, the discourse functions of the sentences in which the lexical phrases were embedded had to be identified first. Thus, the function analysis was conducted to determine these discourse functions of the lexical phrases in the data.

In the data analysis, firstly the discourse functions of lexical phrases were identified. Lexical phrases were identified later because there was not a ready-to-use list of lexical phrases at hand. In other words, neither the lexical phrases nor their functions were known. If the lexical phrases had been attempted to be identified first, then this would have caused to call those phrases which looked formulaic, but did not realise any discourse function "lexical phrase" as the functions were not known. Some of these might have turned out not to be lexical phrases in the function analysis, and this would have caused a waste of time and effort. However, in the analysis of the data, the function of each sentence was determined first, and after then, lexical phrases could be identified by the help of these functions. The part that realised a function was identified as a "lexical phrase". This method enabled the analysis to be done easily, and prevented unnecessary consumption of time and effort.

3.2.1. Function analysis using the CARS model

In the analysis of lexical phrase functions, Swales' CARS (Create a Research Space) model (1990) was used. In the selection of a model for the analysis, the CARS

model was not the single option. For example, Nattinger and DeCarrico's (1992) method of analysis could have also been used, or another model of analysis could have been created. However, in the first case, the analysis would have been insufficient to determine the functions. This is basically because of the fact that Nattinger and DeCarrico's model is a model that is more appropriate for spoken discourse, so the functions that it suggests have been identified for use in spoken discourse. The model also provides examples of written discourse and its functions, but these discourse types are either letters or student essays. Although some of the functions assigned to sentences in these texts may also serve for the functions in research articles in the data of this study, they appear to be either insufficient or too specific. There are three functions that serve as global organisers in Nattinger and DeCarrico's model. They are opening, body, and closing. However, these functions are too general to account for the global structure of RA introductions. Also, the sub-functions of the three global functions in the model seem to be too specific. The examples are *agree*, *assert*, *contrast*, *classify*, and *generalise*. As the examples demonstrate, these functions are more appropriate to describe local organisation of texts; however, they cannot be used for the description of global functions in RA introductions. Also, research articles have an organisation different from other types of written texts as it is a different genre. The functions in research articles also differ from those in other genres. Therefore, the functions assigned to lexical phrases in other kinds of texts do not apply to the lexical phrases in research articles. The functions for lexical phrases in research articles can only be determined by a model of analysis specially designed for research articles.

Alternatively, a model suitable to research articles could have been developed to analyse the discourse functions of lexical phrases. However, this would have required a large amount of time and energy. Also, a model which was specially designed for analysing the discourse organisation of research articles was already available: namely, the CARS model. This model was also suitable to analyse the discourse functions of lexical phrases in research articles.

Two independent raters, one of whom was the author of this study, analysed the data. The second rater was an applied linguist and was familiar with the CARS model.

The two raters analysed the data independently, and the initial agreement between the raters was .67. For full agreement, the raters discussed the sentences that they named different from each other and reached a consensus on most of them. In order to make a decision on a few remaining problematic sentences, another researcher who was also an applied linguist and familiar with the CARS model was asked for his opinion on them.

The "moves" and "steps" in the CARS model appeared to be equivalent to the global discourse functions in the introductions in the data. However, moves are more general than steps; therefore, they can be called "macro functions", and steps "micro functions". Consequently, the names of these moves and steps also named the lexical phrase functions. The unit of analysis consisted of a sentence, and each sentence was assigned a micro function. The lexical phrases were identified according to these functions.

In order to make the categorisation of lexical phrase functions and also lexical phrases easier, each sentence in the data was pasted on a single paper. For this, tables with four boxes were created on a computerised environment. Each table was at a size to cover a whole A4 paper, and the boxes in the table were at an equal size. In each box, a sentence in the data was placed, and then these pages of tables were printed out. Later each paper was cut into four pieces. Thus, each sentence was on a single small paper to help to make the categorisation with ease.

Below, the CARS model is described with reference to specific examples in the data.

As explained before, the CARS model is a model proposed by Swales (1990), and that was specially designed for research article genre to analyse the structural organisation of research article introductions. The model consists of moves and steps. A move is more general than a step, and it is used to refer to a rhetorical unit in an introduction. The CARS model identifies three moves in research article introductions as seen in Table 3.3. below: Move 1 is establishing a territory, Move 2 establishing a niche, and Move 3 occupying the niche.

Table 3.3. Swales' Create A Research Space (CARS) model

Move 1: Establishing a territory
Step 1 Claiming centrality and/or
Step 2 Making topic generalisation(s) and/or
Step 3 Reviewing items of previous research
Move 2: Establishing a niche
Step 1A Counter-claiming or
Step 1B Indicating a gap or
Step 1C Question-raising or
Step 1D Continuing a tradition
Move 3: Occupying the niche
Step 1A Outlining purposes or
Step 1B Announcing present research
Step 2 Announcing principal findings
Step 3 Indicating RA structure

In the first move, the author of a research article tries to demonstrate to the discourse community that the research area is still an important area in the research world as well as give background information on the subject (Swales 1990: 142). In the second move, the research article author identifies a research problem. Lastly, in the third move, he gives information related to the present research, and offers the present research as a solution to the problem.

As it was stated above, the CARS model also includes steps. Steps can be described as constituent parts of a move. They realise more specific functions within a given move.

Each of the three moves is obligatory in the CARS model. However, some steps are optional or alternative to one another. In Move 1, using at least one step is seen as obligatory. In other words, Move 1 must include at least one step, but it can contain more than one step, or all three steps. In Move 2, the steps are claimed to be alternatives to each other. It means that a RA introduction should include only one of them. In Move 3, Steps 1A and 1B are proposed as alternatives to one another.

Each step in the CARS model will be explained and exemplified below, but before that, it will be helpful to exemplify how the CARS model works in the analysis of an introduction. Here is a short introduction from the data of this study seen in Table 3.4.

Table 3.4. A sample introduction from the data analysed using the CARS model

Move 1	**1** Recent reviews of the role of input and interaction in second language (L2) acquisition (Gass, Mackey, & Pica, 1998; Long, 1996; Pica, 1994; Wesche, 1994) suggest that interaction can provide the input and output conditions conducive to L2 development. (LL2: 1)	Step 1
Move 2	**2** Although recasts as a type of input have been investigated in L2 negotiation in and out of the classroom (e.g., Doughty, 1993; Lyster, 1998a, 1998b; Lyster & Ranta, 1997; Mackey, 1999; Mackey, Gass, & McDonough, 2000; Mackey & Philp, 1998; Oliver, 1995, 2000; and Ortega & Long, 1997), the usability and use of recasts in second language development is far from clear. (LL2: 2)	Step 1B
Move 3	**3** The present study examines the occurrence and use of recasts in adult native speaker (NS)/nonnative-speaker (NNS) interactions, with a focus on different types of negotiation and different levels of grammaticality. (LL2: 3)	Step 1A
	4 As background for the present study, I first examine the claims made for input and interaction features in L2 acquisition and then review the research on negative evidence in first language (L1) and L2 acquisition. (LL2: 4) **5** Also included in this section is a brief discussion of the effects of negotiation type on NNS responses. (LL2: 5)	Step 3

The above introduction is one which the model well accounts for. It includes all of the three moves in the model, and the moves follow the order in the CARS model. Move 1 includes only the first step. Move 2 includes Step 1B. In the third move, Step 1A is preferred to Step 1B. Move 3 also contains Step 3. However, Step 2 which is an obligatory element in Move 3 is absent in the introduction.

3.2.1.1. Move 1: Establishing a territory

The first move, i.e., establishing a territory includes three steps: claiming centrality, making topic generalisation(s), and reviewing items of previous research. In Move 1, using at least one of these steps is obligatory, but all steps of Move 1 can be used in an introduction. Each step in Move 1 is explained and exemplified below.

Move 1 - Step 1: Claiming centrality

When claiming centrality, the author of a research article tries to persuade the members of the disciplinary community that the research issue is worthy of scientific investigation, i.e., "part of a lively, significant or well-established research area" (Swales 1990: 144). In a research article introduction, centrality can be claimed for different reasons. It may concern "the research literature" (Samraj 2002). Centrality for a piece of research might be claimed on the grounds that it is a frequently researched issue in a given area as in the example below. The justification for the research comes from the fact that the issue has been taken to be important by a number of researchers in the area, which is an indirect justification of the significance of the research.

(1) The amount of L2 research involving lexical acquisition has increased substantially over the past 2 decades. (MLJ5: 5)

A RA author can claim centrality in the introduction of a RA by stating that the research issue is seen as important among the researchers in the area (See the example below). This gives him the credit he needs to conduct research on that issue.

(2) The importance of timing patterns in learners' speech has been highlighted in many studies and texts (e.g., Anderson-Hsieh, Johnson, & Koehler, 1992; Anderson-Hsieh, Riney, & Koehler, 1994; Chen, 1982; Dickerson, 1989; Flege, Munro, & MacKay, 1995; Gilbert, 1993; McNerney & Mendelsohn, 1992; Pennington, 1989; Solé, 1997; Tajima, Port, & Dalby, 1997; Wong, 1987). (SSLA5: 7)

Centrality in a RA introduction can also be claimed by proposing the research issue to be an interesting one in the research area. An author of a RA justifies the research he conducts by relating to the fact that there are many researchers who are interested in the issue. The following sentence from the data exemplifies this.

(3) Figurative language has become of increasing interest to applied linguists during recent years. (AL5: 1)

Alternatively, centrality claims can also concern the real world (Samraj 2002). An author of a research article can claim centrality in real world by stating the

frequency of the phenomenon. The following example from the data is an illustration of this.

(4) This has been partly because of a growing awareness that phenomena such as metaphor and figurative idioms are very frequent in everyday situations of language use. (AL5: 2)

Centrality can also be claimed in the real world with reference to the usefulness of the phenomenon for given purposes as the example 5 demonstrates.

(5) In general, CMC appears to be a potentially useful tool for language teaching and learning as well as for research into both second language use and acquisition. (MLJ1: 3)

RA authors might also make centrality claims concerning the importance of the phenomenon in the real world (See example 6 below). They create a space for their research by relating to the significance of the phenomenon.

(6) The study of CSs is important, as it looks at how learners are able to use the L2 in order to convey meaning. (AL3: 2)

Authors sometimes claim centrality by pointing to the fact that the phenomenon is a difficult one in the real world for various reasons (See example 7). The claim, in a sense, demonstrates that the phenomenon is worthy of research by referring to its difficulty.

(7) In addition, figurative language is potentially challenging for second language learners and teachers because it is often more difficult to approach systematically in second language classrooms. (AL5: 3)

Centrality might also be claimed in a RA introduction because the phenomenon has centrality to another phenomenon. This enables the author of a RA to provide an explanation to the discourse community, albeit in an indirect way, why the phenomenon is so important to study. The example from the data of this study below is a centrality claim in which the phenomenon 'interaction' has centrality to another phenomenon, i.e., second language development.

(8) Recent reviews of the role of input and interaction in second language (L2) acquisition (Gass, Mackey, & Pica, 1998; Long, 1996; Pica, 1994; Wesche, 1994) suggest that interaction can provide the input and output conditions conducive to L2 development. (LL2: 1)

Move 1 - Step 2: Making topic generalization(s)

Although there is not a clear-cut definition of topic generalizations, they can be viewed as a preparatory step to Move 2, i.e., establishing a niche. In other words, they lay the ground for establishing the niche. Research article authors make topic generalisations to give information about the research issue and its present state in the research area. Thus, they prepare the necessary conditions in order to express that there are misguiding claims or gaps in past research on the issue, or that research on that issue should be questioned, or that research reveals unsatisfactory results on the issue. Topic generalisations can be made to overview theories, hypotheses, models, issues, or variables. The extract from the data below is an example of a topic generalisation that overviews theories.

(9) Because word-final obstruents tend to have clear release bursts in native Russian articulation, theories of both transfer and word integrity predict that NSs of Russian will speak English with little overlap of consonants at word boundaries. (SSLA5: 49)

In a RA introduction, topic generalisations can also be made to explain general research practices in a research area. This is illustrated in the following example from the data.

(10) On the other hand, SLA researchers studying the effects of the linguistic environment on learners' cognitive processes have conducted both observational and experimental studies of conversational interaction between nonnative speakers (NNSs) and either native speakers (NSs) or other NNSs to explore the ways in which such interaction may contribute to SLA. (SSLA3: 5)

Topic generalisations may concern general findings on a phenomenon that have been reached by researchers on a particular area. Sentence from the data below is a topic generalisation of this type.

(11) Past research on L2 article acquisition, like so many other areas of L2 acquisition, has shown that learners seem to have an innate—and therefore universal—sensitivity to certain semantic, syntactic, and discourse distinctions and that they tend to mark such distinctions even from the early stages of language acquisition (see Young, 1995, p. 142). (SSLA1: 1)

RA authors might use topic generalisations in the introductions of their research papers to give background information on a phenomenon. The example from the data below is a topic generalisation that gives background information on 'computer-mediated communication' (i.e., CMC).

(12) Characteristics of CMC resembling writing include the lack of intonation, the permanent record of the discourse, the lexical density, and the use of punctuation and textual formatting in messages. (MLJ1: 15)

Topic generalisations in a RA introduction might also be used to state the RA author's comments on, or conclusions, and inferences from research. The sentence from the data of the study below is an example of a topic generalisation that is used to express the author's comment on a given approach to the investigation of 'communication strategies'.

(13) A further advantage of this approach to the study of CSs is that it might also help researchers to determine why different types of learners tend to use particular communication strategies. (AL3: 22)

Introductions of RAs might also include topic generalisations that express the author's proposals. The following example is a sentence from the data, and functions as a topic generalisation that presents a proposal by the author, i.e., an investigation of the role of the factors effective in incidental vocabulary acquisition in a second language.

(14) A study of the nature of the role of these factors in L2 incidental vocabulary acquisition may not only contribute to interactive theories of reading and further

refinement of models of lexical development through reading, but also help to explain the variability found in incidental learning outcomes in instructed L2 learning environments. (LL4: 17)

Topic generalisations can also cover examples, or definitions that are supplied by the author of a RA. The following sentence from the data is an illustration of the author's example of 'semantic elaboration' involving words.

(15) An example of semantic elaboration is a situation in which a learner reflects on the extent to which a word (e.g., *snail)* represents an instance of a given category (e.g., animal, insect, or food) as compared to when the learner does not do so. (MLJ5: 17)

Move 1 - Step 3: Reviewing items of previous research

As in Step 2, Step 3 is also a kind of preliminary step to Move 2. This step reviews the previous research on the research issue. It shows the state of the research on the phenomenon to be able to claim in Move 2 that the phenomenon is needed to be researched for some reason explained in that move. The difference between Steps 2 and 3 is that Step 3 refers to specific research in the area. Therefore, sentences in Step 3 contain citations to research while those in Step 2 do not have any citations at least in the part of the sentence that realises the function of topic generalisation. Sentences of Step 3 almost always have citation. Citation is missing only in cases when citation related to the sentence is given in previous sentences. In a research article introduction, the author can review the items of previous research in different ways. He can name the research issues or directions. The example from the data below is a review of previous research, and related to the research issue, i.e., 'transfer processes involved in the learning of second language figurative language and idioms'.

(16) There has also been some empirical research into the transfer processes involved in the learning of L2 figurative language and idioms (Kellerman 1977, 1978, 1986; Jordens 1977). (AL5: 9)

In reviewing items of previous research in RA introductions, general, or specific research findings on a research area might be presented. Examples 17 and 18 are sentences from the data that give general and specific research findings respectively.

(17) Research investigating the development of other language structures, such as negation and question formation, has found that learners from different first language (L1) backgrounds may pass through similar stages of development, and at the same time, may also exhibit interlanguage behavior within stages resulting from L1 influence (Schumann, 1979; Spada & Lightbown, 1999; Wode, 1981; Zobl, 1980a, 1980b, 1982; see also Larsen-Freeman & Long, 1991; Lightbown & Spada, 1999). (LL3: 5)

(18) Kim and Zsiga (2002), however, found that Korean learners of English often applied the Korean rule of lenis stop voicing (a process that Jun, 1995, argued to be the result of articulatory reduction and overlap) in their English speech even at boundaries between two content words. (SSLA5: 47)

Review of previous research might also concern arguments, hypothesis, or models in the literature. The following sentence from the data illustrates the author's review of a researcher's argument on 'learning words from context'.

(19) Sternberg (1987) argued that most vocabulary is learned through context but that the learning-from-context method is at its best for teaching learning-to-learn skills, not for teaching specific vocabulary. (MLJ2: 7)

RA authors sometimes use quotations to review previous research on a phenomenon in a research area. The sample sentence from the data below is a quotation.

(20) Long (1996), in a reformulation of the Interaction Hypothesis, also points to the importance of noticing (i.e., selective attention): "Negotiation work that triggers *interactional adjustments* by the NS or more competent interlocutor facilitates acquisition because it connects input, internal learner capacities, particularly selective attention, and output in productive ways" (pp. 451–452, emphasis in original). (SSLA4: 23)

Authors might also use definitions, or examples from the literature of a research area in a RA introduction. Example 21 from the data is the definition of 'recasts' taken from the literature of L1 acquisition.

(21) Following L1 acquisition research, recasts have generally been described as utterances that "rephrase a child's utterance by changing one or more sentence components (subject, verb, or object) while still referring to its central meanings" (Long, 1996, p. 434; see also Baker & Nelson, 1984; Farrar, 1990, 1992). (SSLA4: 16)

3.2.1.2. Move 2: Establishing a niche

Move 2 includes four steps which have been proposed as alternatives to each other. These are counter-claiming, indicating a gap, question-raising, and continuing a tradition. Each of these steps will be explained below.

Move 2 - Step 1A: Counter-claiming

In this step, a research article author claims the opposite of what is claimed for the phenomenon in the research area. In this way, he maintains that the claims made on the research issue are misguiding (Swales 1990: 154). In a sense, the author presents the reason why he is doing research on that issue. Here is an example of a counter-claim from the data of this study:

(22) The contradictions can be reconciled by recognizing two distinct low-rising contours, differing in the length of the final rise. (AL4: 24)

In the sentence above, the author claims that recognising two distinct low-rising contours will clear away the contradictions. This suggests that the previous research views the low-rising contours as a single contour. Thus, the author produces a statement of counter-claiming to a previous assumption held by past research on the issue.

Move 2 - Step 1B: Indicating a gap

In this Step 1B of Move 2, the research article author identifies a gap in research on the issue. A gap can concern the low number of research or the limitations of research on the issue. The extract below is an example of a gap.

(23) However, only a limited amount of research has focused specifically on L2 lexical acquisition from the perspective of IP, beginning with *word-level input processing,* or how learners process new L2 words as input. (MLJ5: 7)

The author of the article of the above sentence identifies a gap in research on the issue of L2 lexical acquisition by referring to the limited amount of research on the phenomenon. This implies the need for more research, and thus justifies the present research.

Move 2 - Step 1C: Question-raising

Before setting up the purpose, research article authors may explain why they do research on the issue by raising a question on the phenomenon. They can question the findings of previous research on the issue, or an aspect of the phenomenon. Here is an example of a question-raising:

(24) This type of concurrent semantic overlap and mismatch draws into question the role of *semantic elaboration* during L2 lexical learning. (MLJ5: 15)

In the preceding sentence, the author raises a question about an aspect of the phenomenon, more specifically, "the role of semantic elaboration during L2 lexical learning". With this, he implies that this aspect of the phenomenon will be questioned, and clarified in his study.

Move 2 - Step 1D: Continuing a tradition

Sometimes researchers conduct studies to substantiate findings of previous research on an issue, and they state this in this Step 1D as a reason why they do research on that issue. These might be replications, or studies that are part of a series of studies on the issue conducted by the author of the study, or those that are one of the several separate studies on the same issue. The following sentence from the data is an example of this step.

(25) The present study reports on a follow-up replication, in grades 3 and 5, of previous findings that compared reading and writing skills in Spanish and Náhuatl, focusing on developmental trends among a selected group of forty-five 2nd, 4th, and 6th graders (Francis 1997). (AL2: 7)

It is announced in the sentence that the present study is a replication of a previous study which justifies the present research.

3.2.1.3. Move 3: Occupying the niche

Move 3 contains three steps, first of which has two forms that are alternatives to one another: Step 1A outlining purposes, Step 1B announcing present research, Step 2 announcing principal findings, and Step 3 indicating RA structure. All these steps will be explained below.

Move 3 - Step 1A: Outlining purposes

In Step 1A, the author explains the reason why he is doing the study (Swales 1990: 159). He can do this by producing a statement that is directly related to the purpose of the study. The following sentence is an illustration of this.

(26) The purpose of the current study was to examine the acquisition of derivational morphology—the use of suffixes that can change the part of speech and cause variations in meaning—by native English-speaking learners of Spanish. (MLJ2: 1)

A RA author might also explicitly state the research question(s) of the study in order to outline the purpose of the research. This is exemplified in the sentence below.

(27) I will examine the baseline data collected for the main study to answer the following questions: (a) What are the strategies that junior high school learners of French use while listening to an authentic text in French? (b) What are the differences in reported listening strategy use between the more skilled and less skilled listeners? (LL5: 9)

Move 3 - Step 1B: Announcing present research

In this step, the author presents the features of the current study (Swales 1990: 159). These features may be related to the methodology of the study. The following sentence is an example of this step concerning methodology.

(28) The data for the study come from 191 timed, assessment-type essays written by first- and second-language writers. (LL1: 24)

The present research may also be announced by giving operational definitions related to the study. Here is an example for this:

(29) Thus, an L phrase accent was defined by a limited rise (that is, to a mid pitch rather than a high).[4] (AL4: 32)

Announcing present research might also concern limitations of a study. In the following sentence, a limitation regarding the scope of the study is expressed by the author.

(30) As the study is only a preliminary exploration of the relationship between cognitive styles and CS preferences, it is limited to CSs which are used in order to compensate for gaps in learners' lexis; the strategies that are described by Poulisse (1990: 1) as 'compensatory strategies'. (AL3: 28)

Move 3 - Step 2: Announcing principal findings

In this step, an author of a RA mentions the findings of the study, or can make some comments on the findings. See the extract below for an example of this step. In the sentence, the author presents his comments on the findings of the study. More specifically, he expresses his conclusion as a result of his evaluation of the findings.

(31) The findings-although constrained by the limited data available-show evidence that learners encounter greater difficulty with English figurative phrases that have a different conceptual basis from that of Malay. (AL5: 21)

Move 3 - Step 3: Indicating RA structure

In this step, the research article author indicates the structure of the article. In so doing, he lets the audience to know what will happen next, or in the whole article. This helps readers of the paper to understand the overall organisation of the article, and follow the study more easily. A sentence from the data below is an illustration of this Step 3.

(32) In the first section, this document describes and models the relationship between flow and learning. (MLJ4: 11)

In this part of the methodology chapter, information with examples regarding the CARS model was given. Full analysis of the data according to the CARS model (i.e., function analysis) can be seen in Appendix II. The following section includes information about how lexical phrase analysis was done.

3.2.2. Lexical Phrase Analysis

Eleven discourse functions were identified in the function analysis. Some of these functions were specified in the lexical phrase analysis. In other words, they were assigned sub-functions. Lexical phrases in the data were identified separately for each sub-function. This division was made to make it easier to use the lexical phrase list as a reference. (See Appendix III for the list of lexical phrases in the data.)

In the lexical phrase analysis, some features were looked for in the data when deciding whether a phrase is a lexical phrase or not. First, the part of a sentence that seemed formulaic was accepted as a lexical phrase. In deciding which part of a sentence would be accepted to be formulaic, the part of a sentence that was not specific to the research, and that was so general as to apply to any sentence with the same function in any research article introduction was accepted to be formulaic. The examples below demonstrate how the formulaic parts were determined in the analysis of the data.

(33) Figurative language has become of increasing interest to applied linguists during recent years. (AL5: 1)

(34) *Phenomenon* has become of increasing interest to *researchers of a field* during recent years. (AL5: 1)

In sentence 33, lexical items "figurative language" and "applied linguists" were not accepted to be formulaic because they are expressions specific to the research area. However, as "figurative language" was the phenomenon in a research area and "applied linguists" the researchers of a field in the sentence, they were included into the lexical phrase as variable elements, i.e., as "phenomenon" and "researchers of a field" (See example 34). The remaining part was taken as formulaic with no change as it could fit to any sentence with the same function in RA introductions. In the analysis of the

whole data, the decision for formulaicity of lexical phrases was made according to the researcher's intuition of frequency (Schmitt 2000: 76; see also Nation 1990). Also, it was confirmed that the parts of the sentences that were identified as formulaic were really formulaic by a second researcher who is an applied linguist. This confirmation should have been made by more informants. However, there were some difficulties in doing this. There was a problem in finding informants who would accept to check the whole lexical phrase list for formulaicity as the list was too long. The list might have been grouped to four or more parts, and each group of lexical phrases might have been given to a different group of informants. However, this would not have solved the problem. The informants had to be applied linguists who were familiar with the language in RAs in the field of applied linguistics in order to decide the formulaicity of lexical phrases. Yet, it was not easy to find so many applied linguists. Even if they could have been found, and had accepted to participate, all the process, i.e., from finding informants to receiving their replies, would have taken a great deal of time. However, it was not possible to realise this because of a time limitation.

Second, only the phrases that realised a discourse function independently from the context were labelled as lexical phrases. Examples of this are in the following.

(35) The importance of *phenomenon* has been highlighted in many studies. (SSLA5: 7)

(36) *Name of researcher (year)* reported that .... (LL4: 3)

(37) However, only a limited amount of research has focused specifically on *phenomenon* from the perspective of .... (MLJ5: 7)

(38) The purpose of the present study is to investigate whether .... (SSLA1: 5)

(39) The study reported here is part of a ...-year longitudinal investigation of *phenomenon.* (LL5: 5)

(40) Also included in this section is a brief discussion of .... (LL2: 5)

The above phrases from the data have discourse functions of claiming centrality (i.e., sentence 35), reviewing items of previous research (i.e., sentence 36), indicating a gap (i.e., sentence 37), outlining purposes (i.e., sentence 38), announcing present research (i.e., sentence 39), and indicating RA structure (i.e., sentence 40). Although they have

been extracted from their contexts, they are still observed to perform the same functions. They were identified as lexical phrases as they have discourse functions and they realise these functions even when they are decontextualised. Formulaic expressions which lack discourse functions out of context in the data were not accepted as lexical phrases. See the examples below.

(41) … is marked by …. (AL4: 4)

(42) … may depend more on …. (MLJ5: 22)

(43) This … is followed by …. (AL4: 5)

All the sentences in which the above phrases are embedded were labelled as topic generalisations in the data analysis. However, the phrases are observed not to signal this function out of their contexts as they do not have the features to do this.

Third, highly idiosyncratic sentences were excluded altogether from the list of lexical phrases. The following example is one of this type.

(44) These interactional modifications provide learners with implicit feedback on their own IL production (Gass; Long, 1996; Pica, 1994; Swain, 1995). (SSLA4: 4)

The above sentence has a function of reviewing items of previous research. Yet, no phrase in it could be identified as a lexical phrase as the sentence is very idiosyncratic in nature. It means it does not include any phrase that is familiar, and can occur in another context with more or less flexibility. Therefore, it was not included into the analysis.

All types of lexical phrase (i.e., polywords, institutionalised expressions, phrasal constraints, and sentence builders) were sought in the data. In the notation system, a distinction was made between variable and optional elements. Variable elements in a lexical phrase are those that will vary between research articles. The variable parts (i.e., slots) in sentence builders were indicated either by three dots or by phrases written in italics such as *phenomenon*, *name of researchers*, *name of research area*, *name of hypothesis*, *name of variable*, and *subjects* (See Appendix 4 for the notation system used in the analysis of the data). Also, some variable elements that should be in parentheses were indicated both in parentheses and italics, e.g., *(year)*,

(citation), and *(page number)*. The optional parts, on the other hand, are those that might be found, but not obligatorily, in a lexical phrase. They were indicated with parentheses without italics. Square brackets were used to indicate the parts that were added by the author of this study (e.g., [the findings] and [*of the phenomenon*]).

In the analysis of the data one sentence (LL5:1) was used two times as it had two parts realising two sub-functions of claiming centrality. Also, two sentences in the data (SSLA5: 55, 56) were used as if they were a single sentence in the lexical phrase analysis because they can only together realise a function.

The lexical phrase list appeared as a result of the lexical phrase analysis was shown to two researchers in the field of applied linguistics. They, too, confirmed that the phrases in the list were lexical phrases as they looked very familiar, and were commonly used in the applied linguistics research.

4. CHAPTER: RESULTS

This chapter consists of two sections. In the first section, results regarding the function analysis will be given, and in the second section, results of the lexical phrase analysis will be presented.

4.1. Function Analysis

In the function analysis, eleven micro discourse functions (i.e., steps) for the three macro functions (i.e., moves) were identified on the data. The data consisted of 409 sentences, and each sentence was assigned one of these eleven micro discourse functions (See Table 4.1. for the discourse functions, and their frequencies and percentages in the data.)

Table 4.1. Distribution of discourse functions in the data

Macro discourse functions	Micro discourse functions	*n*	%	*n*	%
Establishing a territory	Claiming centrality	33	8.06	290	70.88
	Making topic generalization(s)	133	32.51		
	Reviewing items of previous research	124	30.31		
Establishing a niche	Counter-claiming	2	0.48	36	8.77
	Indicating a gap	21	5.13		
	Question-raising	11	2.68		
	Continuing a tradition	2	0.48		
Occupying the niche	Outlining purposes	31	7.57	83	20.27
	Announcing present research	29	7.09		
	Announcing principal findings	8	1.95		
	Indicating RA structure	15	3.66		
	Total	409	100		

In three macro discourse functions (i.e., establishing a territory, establishing a niche, and occupying the niche), establishing a territory is the one which was used most frequently in the data. It contained 290 sentences that constituted 71 per cent of the data. On the other hand, establishing a niche was the least frequently used one of these functions in the data. It had 36 sentences that made up only 9 per cent of the data.

The most frequent discourse function in establishing a territory (i.e., Move 1), and also in the whole data was topic generalisations with 133 sentences, and this constituted 33 per cent of the data. This was followed by reviewing items of previous research with 124 sentences that covered 30 per cent of the data. On the other hand, counter-claiming and continuing a tradition were the least frequent discourse functions in establishing a niche, and in the whole data as well, each of which having only 2 sentences. Each one of these functions constituted only 0.5 percent of the data. The number of discourse functions that were between these two extremes was close to each other. The most frequent function in establishing a niche (i.e., Move 2) was indicating a gap with 21 sentences (i.e., 5 per cent of the data), and in occupying the niche (i.e., Move 3) was outlining purposes with 31 sentences, which had an 8 per cent share in the data.

Table 4.2. which gives the distribution of macro discourse functions across journals in the data demonstrates that establishing a territory was used most frequently in SSLA with 87 sentences that constituted 30 per cent of all sentences of establishing a territory. The most frequent use of establishing a niche was in LL journal with 11 sentences that was 31 per cent of all sentences of establishing a niche. Also, occupying the niche was found to be used most frequently in AL introductions with 31 sentences that made up 37 per cent of all sentences of occupying the niche.

Table 4.2. Distribution of macro discourse functions across journals in the data

Macro discourse functions		AL	LL	MLJ	SSLA	Total
Establishing a territory	*n*	81	51	71	87	290
	%	27.93	17.58	24.48	30	100
Establishing a niche	*n*	10	11	9	6	36
	%	27.77	30.55	25	16.66	100
Occupying the niche	*n*	31	15	17	20	83
	%	37.34	18.07	20.48	24.09	100

It will be appropriate to begin with the distribution of the micro functions of establishing a territory among the journals in the data. The distribution of centrality claims among the four journal introductions varies between 12 and 6 (See Table 4.3.). AL was the journal in which the use of centrality claims was the most frequent among all journals, i.e., 12 sentences. This makes up nearly two centrality claims per article. Centrality claims in AL introductions constituted 36 per cent of all centrality claims in the data. LL and SSLA were the journals in which centrality claims were used most infrequently among all. Each of these journals contained 6 centrality claims (i.e., about one centrality claim per article), and each one had an 18 per cent proportion in whole centrality claims in the data. MLJ was the one whose introductions had an in-between number of centrality claims in all journals. It contained 9 centrality claims which made up 27 per cent of all centrality claims in the data.

Table 4.3. Distribution of centrality claims in the data

	Centrality claims in the data	
	n	%
AL	12	36.36
LL	6	18.18
MLJ	9	27.27
SSLA	6	18.18
Total	33	100

The use of topic generalisations in the introductions of all journals in the data varies greatly in number among journals (See Table 4.4.). SSLA was the leading journal in the use of sentences which realised the function of topic generalisations. It included 45 topic generalisations, and this was 34 per cent of the topic generalisations in the data. LL was the one that had the least frequent use of topic generalisations in the data with

23 sentences, and this presented 17 per cent of all topic generalisations in the data. There is a big difference (i.e., a difference of 22 sentences that made up 17 per cent) between journals that had the most and the least frequent use of topic generalisations. The number of topic generalisations in SSLA was nearly twice of those in LL. The other two journals were in the middle in the number of topic generalisations that they contained. MLJ had 36 topic generalisations that formed the 27 per cent of all the topic generalisations in the data. AL came next with 29 topic generalisations, and had a percentage of 22 in the topic generalisations of the data.

Table 4.4. Distribution of topic generalisations in the data

	Topic generalisations in the data	
	n	%
AL	29	21.80
LL	23	17.29
MLJ	36	27.06
SSLA	45	33.83
Total	133	100

Like topic generalisations, reviewing items of previous research also had an extensive use in the data (See Table 4.5.). AL had a priority over other journals in that it included 40 sentences that realised the function of reviewing items of previous research, and this represented 32 per cent of the sentences that realised this function in the data. LL was the journal, introductions of which had the most limited use of reviewing items of previous research in the data. It included 22 sentences that made up 18 per cent of all sentences of literature review in the data. SSLA and MLJ were between the two. SSLA covered 29 per cent of the reviewing items of previous research in the data with 36 sentences. MLJ had 26 sentences that constituted 21 per cent of all reviews of literature in the data. It seems that there were two groupings among journals in terms of the number of sentences of reviewing items of previous research that they contained. AL and SSLA formed one group, and MLJ and LL formed the other group as the number of sentences of reviewing items of previous research in the two journals in each group was close to each other.

Table 4.5. Distribution of reviewing items of previous research in the data

	Reviewing items of previous research in the data	
	n	%
AL	40	32.25
LL	22	17.74
MLJ	26	20.96
SSLA	36	29.03
Total	124	100

Results regarding the micro functions of establishing a niche are given in Tables 4.6. through 4.9. The data contained only two sentences of counter-claiming, both of which were used in the introductions of AL journal. (See Table 4.6.).

Table 4.6. Distribution of counter-claiming in the data

	Counter-claiming in the data	
	n	%
AL	2	100
LL	0	0
MLJ	0	0
SSLA	0	0
Total	2	100

Of the 21 sentences that indicated a gap in the data, 7 were found in LL journal, which meant 33 per cent of all gap identifications in the data (See Table 4.7). This was the most frequent use of indicating a gap in the data. AL and SSLA were the journals in which the function of indicating a gap was used least frequently in the data. Each one included 4 sentences that made up 19 per cent of all gap indications in the data. MLJ journal was in-between. It contained 6 sentences which constituted 29 per cent of all gap identifications in the data. It should be noted that the differences among journals in the use of indicating a gap are not very great.

Table 4.7. Distribution of indicating a gap in the data

	Indicating a gap in the data	
	n	%
AL	4	19.04
LL	7	33.33
MLJ	6	28.57
SSLA	4	19.04
Total	21	100

The data contained 11 sentences of question-raising, 4 of which were from LL journal (See Table 4.8.). LL had a proportion of 36 per cent in all sentences realising the function of question-raising in the whole data. AL whose introductions contained 3 sentences of question-raising was in the second place with a percentage of 27. Question-raising was least frequently used in MLJ and SSLA. Each of these journals had only 2 sentences that made up 18 per cent of the part of the data regarding question-raising. As in indicating a gap, the journals do not vary much from each other in the number of sentences of question-raising that they included.

Table 4.8. Distribution of question-raising in the data

	Question-raising in the data	
	n	%
AL	3	27.27
LL	4	36.36
MLJ	2	18.18
SSLA	2	18.18
Total	11	100

The data contained only 2 sentences of continuing a tradition, one of which was in AL, and the other in MLJ (See Table 4.9.).

Table 4.9. Distribution of continuing a tradition in the data

	Continuing a tradition in the data	
	n	%
AL	1	50
LL	0	0
MLJ	1	50
SSLA	0	0
Total	2	100

Results for micro functions of occupying the niche are shown in Tables 4.10. through 4.13. below. The function of outlining purposes was observed to be used most frequently in SSLA. 9 of the 31 sentences of outlining purposes in the data were found in SSLA (See Table 4.10.). It had a proportion of 29 per cent of sentences having the function of outlining purposes in the data. LL came after SSLA with 8 sentences that had a percentage of 26 in all sentences of outlining purposes in the data. AL and MLJ were the journals in which use of outlining purposes was the least of all journals. Each of them contained 7 sentences of outlining purposes that meant 23 per cent of all

sentences that realised this function in the data. Again, there is a small difference between journals in the use of outlining purposes.

Table 4.10. Distribution of outlining purposes in the data

	Outlining purposes in the data	
	n	%
AL	7	22.58
LL	8	25.80
MLJ	7	22.58
SSLA	9	29.03
Total	31	100

As seen in Table 4.11., most of the sentences of announcing present research were in AL. It constituted 45 per cent of all the sentences of announcing present research in the data with 13 sentences. The 8 sentences used in SSLA introductions constituted 28 per cent of all of the sentences of this function in the data. Each of the LL and MLJ journals had 14 per cent share on the data with regard to the function of announcing present research with 4 sentences.

Table 4.11. Distribution of announcing present research in the data

	Announcing present research in the data	
	n	%
AL	13	44.82
LL	4	13.79
MLJ	4	13.79
SSLA	8	27.58
Total	29	100

All of the sentences that had the function of announcing principal findings are seen in Table 4.12. to be in AL journal.

Table 4.12. Distribution of announcing principal findings in the data

	Announcing principal findings in the data	
	n	%
AL	8	100
LL	0	0
MLJ	0	0
SSLA	0	0
Total	8	100

MLJ was the journal in which the use of indicating RA structure was the most frequent among the journals in the data (See Table 4.13.). It included 6 sentences that

made up 40 per cent of the sentences of indicating RA structure. Each of the LL, MLJ, and SSLA journals had a 20 per cent share on the data regarding indicating RA structure with 3 sentences.

Table 4.13. Distribution of indicating RA structure in the data

	Indicating RA structure in the data	
	n	%
AL	3	20
LL	3	20
MLJ	6	40
SSLA	3	20
Total	15	100

4.2. Lexical Phrase Analysis

Results of lexical phrase analysis will be given below under two titles: general frequencies and lexical phrase lists.

4.2.1. General frequencies

In the lexical phrase analysis, 409 phrases were identified as relatively formulaic with variable slots and thus were potential lexical phrases (See Table 4.14.) Of these, 298 were determined to be lexical phrases which constituted 73 per cent of the data. The remaining 111 phrases were found not to be lexical phrases. This made up 27 per cent of the data.

Table 4.14. Distribution of lexical phrases in the data

	n	%
Lexical phrases	298	72.86
Non- lexical phrases	111	27.13
Total	409	100

Of four types of lexical phrase, sentence builders was the dominant one in the data, i.e., almost all the lexical phrases were sentence builders. There were also 4 institutionalised expressions, and 4 polywords in the data. Phrasal constraints which is another type of lexical phrase, and also some polywords were contained in the lexical phrases of other types in the data as they could not realise a discourse function on their own.

In the distribution of lexical phrases among macro discourse functions, it was observed that establishing a territory was the most frequent one in lexical phrase use with 200 lexical phrases that constituted 67 per cent of all lexical phrases in the data (See Table 4.15.). On the other hand, the least frequently used macro function in terms of lexical phrase use was establishing a niche with 28 lexical phrases that made up 9 per cent of all lexical phrases in the data.

In micro discourse functions in the data, reviewing items of previous research was found to contain noticeably more lexical phrases than other functions. This was also the most frequent function in establishing a territory. There were 96 lexical phrases in the data that had the function of reviewing items of previous research, and they covered 32 per cent of the whole lexical phrases in the data. The second lexical phrase function that was also highly frequent in the data was making topic generalisations. 26 per cent of the lexical phrases in the data were topic generalisations, and there were 77 lexical phrases of this function in the data. Least frequently used lexical phrases in the data belonged to the functions of counter-claiming and continuing a tradition. The data offered only 2 lexical phrases for each function that constituted 1 per cent of all lexical phrases in the data. It is interesting to note that the most frequent micro function in lexical phrase use in the data was found in establishing a territory, and the least frequent ones in establishing a niche. The number of remaining lexical phrases in the data for other functions varies between 31 and 6. What is interesting among these findings is that indicating a gap was the most frequently used function of establishing a niche in the data. The data contained 17 lexical phrases for indicating a gap with a percentage of 6 in all lexical phrases. Also, outlining purposes was the most frequent one among the micro functions of occupying the niche. There were 31 lexical phrases for outlining purposes in the data with a percentage of 10 in all lexical phrases.

Table 4.15. Distribution of lexical phrases among discourse functions in the data

Macro discourse functions	Micro discourse functions	*n*	%	*n*	%
Establishing a territory	Claiming centrality	27	9.06	200	67.10
	Making topic generalization(s)	77	25.83		
	Reviewing items of previous research	96	32.21		
Establishing a niche	Counter-claiming	2	0.67	28	9.38
	Indicating a gap	17	5.70		
	Question-raising	7	2.34		
	Continuing a tradition	2	0.67		
Occupying the niche	Outlining purposes	31	10.40	70	23.48
	Announcing present research	20	6.71		
	Announcing principal findings	6	2.01		
	Indicating RA structure	13	4.36		
	Total	298	100		

The distribution of lexical phrases among functions showed that topic generalisations and reviewing items of previous research were the two functions in which lexical phrase use was the most frequent. The lexical phrases of these two functions constituted more than half of all lexical phrases in the data. It seems quite normal that lexical phrases having these functions are high in the data as the number of sentences that realise these two functions is also high. This led to the question if there is a correlation between the number of lexical phrases of discourse functions and the number of sentences that realised those functions. The Pearson product-moment correlation results have made clear that there is a high correlation between them, i.e., $r = 0.97$.

However, a different picture from what the correlation suggests emerges from the results that show the proportion of lexical phrases in each function in the data (See Table 4.16.). In macro functions, occupying the niche is the one in which the proportion of lexical phrases in all the sentences that realised this function in the data was the highest. In a sense, occupying the niche was the most formulaic macro function in the data. Lexical phrases of occupying the niche constituted 85 per cent of all sentences of this function in the data. Establishing a territory, however, seem to be the least formulaic macro function in the data because it was the function in which the proportion of lexical phrases in all sentences that had this macro function in the data was the lowest. Lexical phrases of establishing a territory constituted 69 per cent of all the sentences that had this function in the data.

The most formulaic function among the micro functions of establishing a territory in the data seem to be claiming centrality as lexical phrases of claiming centrality constituted 79 per cent of all centrality claims in the data. 27 phrases within the 34 sentences that functioned as centrality claims in the data were lexical phrases. In establishing a niche, counter-claiming and continuing a tradition are the two functions that might be called the most formulaic ones in the data because all sentences involving these functions contained lexical phrases. Outlining purposes seem to be the most formulaic one of all micro functions in occupying the niche because all of the 31 phrases having the function of outlining purposes were lexical phrases. Counter-claiming, continuing a tradition, and outlining purposes also seem to be the most formulaic functions in all data as each of the sentences that realised these functions offered a lexical phrase. Making topic generalisations, however, seem to be the least formulaic function in the data as the lexical phrases of topic generalisation constituted 58 per cent of all sentences of this function.

Table 4.16. Proportion of lexical and non-lexical phrases in each function in the data

		Lexical phrases		Non-lexical phrases		Total		Lexical phrases		Total	
Macro discourse functions	Micro discourse functions	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%
Establishing a territory	Claiming centrality	27	79.41	7	20.58	34	100	200	68.72	291	100
	Making topic generalization(s)	77	57.89	56	42.10	133	100				
	Reviewing items of previous research	96	77.41	28	22.58	124	100				
Establishing a niche	Counter-claiming	2	100	0	0	2	100	28	77.77	36	100
	Indicating a gap	17	80.95	4	19.04	21	100				
	Question-raising	7	63.63	4	36.36	11	100				
	Continuing a tradition	2	100	0	0	2	100				
Occupying the niche	Outlining purposes	31	100	0	0	31	100	70	85.36	82	100
	Announcing present research	20	68.96	9	31.03	29	100				
	Announcing principal findings	6	75	2	25	8	100				
	Indicating RA structure	13	93.33	1	6.66	14	100				
	Total	298		111		409					

4.2.2. Lexical phrase lists

This section includes lexical phrase lists for each function. Distribution of lexical phrases in functions which have sub-functions will also be given.

Initially, results for lexical phrases of establishing a territory are given below.

Claiming centrality

16 of the 27 lexical phrases of claiming centrality concerned the real world while 11 of them the literature (See Table 4.17.). Lexical phrases concerning the real world constituted 59 per cent of the centrality claims whereas those concerning the literature constituted 41 per cent of all centrality claims in the data. Most of the lexical phrases of claiming centrality related to the 'importance' of the phenomenon in real world. There were 5 lexical phrases of this type in the data, and they made up 19 per cent of all centrality claims. The least frequent lexical phrase of claiming centrality in the data concerned the difficulty of the phenomenon in real world. There was only 1 lexical phrase doing this, and it had a 4 per cent share on the data. There is an even distribution among other sub-functions, and the number of lexical phrases in them varies between 3 and 4.

Table 4.17. Distribution of lexical phrases in claiming centrality

				Total	
Sub-functions	Underlying-functions	*n*	%	*n*	%
In literature	Research frequency	4	14.81	11	40.74
	Research importance	4	14.81		
	Research interest	3	11.11		
In real world	Frequency of the phenomenon	3	11.11	16	59.25
	Usefulness of the phenomenon	4	14.81		
	Importance of the phenomenon	5	18.51		
	Difficulty of the phenomenon	1	3.70		
	Centrality to another phenomenon	3	11.11		
Total				27	100

Table 4.18. below lists all the lexical phrases that have the function of claiming centrality by sub-functions.

Table 4.18. Lexical phrases of claiming centrality

1. In Literature

   a. Research frequency
   - *Phenomena* have received considerable attention. (SSLA1: 2)
   - *Name of research area* remains a "young field" that merits greater research attention. (LL5: 1)
   - The amount of *name of research area* research involving ... has increased substantially over the past ... decades. (MLJ5: 5)
   - *Phenomenon* has been included in most accounts of .... (AL4: 1)

   b. Research importance
   - Two interrelated problems that are of crucial importance in *name of research area* theory and research are .... (SSLA3: 1)
   - Given that ..., it is important that research focus on *aspect of phenomenon.* (MLJ5: 29)
   - The importance of *phenomenon* has been highlighted in many studies. (SSLA5: 7)
   - However, *phenomenon*'s importance has also been claimed by ... researchers. (AL4: 8)

   c. Research interest
   - *Phenomenon* has become of increasing interest to *researchers of a field* during recent years. (AL5: 1)
   - Interest in ... has led researchers in *name of research area* to focus on *aspect of phenomenon.* (AL3: 1)
   - For many investigators who study ..., *phenomena* present the most interesting cases. (AL2: 3)

2. In Real World

   a. Frequency of the phenomenon
   - The use of *phenomenon* has recently increased in .... (MLJ1: 2)
   - Phenomena such as ... are very frequent in everyday situations of .... (AL5: 2)
   - *An everyday situation* is likely to involve some *phenomenon.* (LL1: 1)

   b. Usefulness of the phenomenon
   - *Phenomenon* appears to be a potentially useful tool for .... (MLJ1: 3)
   - *Phenomenon* is an effective tool for .... (MLJ2: 2)
   - From a ... perspective on ..., this is considered one of the most beneficial aspects of *phenomenon.* (MLJ1: 25)
   - From this theoretical perspective, *phenomenon* in particular is viewed as beneficial for ... (MLJ1: 26)

   c. Importance of the phenomenon
   - *Phenomenon* is the principal means of .... (LL1: 15)

- The study of *phenomenon* is important, as .... (AL3: 2)
- It is important for ... to understand *aspect of phenomenon.* (MLJ1: 1)
- *Phenomenon* is fundamental to the potential that .... (SSLA4: 21)
- *Phenomenon* plays a significant role in .... (LL5: 1)

d. Difficulty of the phenomenon
- *Phenomenon* is potentially challenging for .... (AL5: 3)

e. Centrality to another phenomenon
- *Phenomenon* can provide the ... conditions conducive to .... (LL2: 1)
- *Phenomenon* can be a rich source of .... (SSLA4: 1)
- It is widely held that *phenomenon* is especially facilitative for .... (MLJ1: 9)

Making topic generalisations

From among the sub-functions of making topic generalisations (See Table 4.19.), the one in which the use of lexical phrase was the most frequent was overview. There were 19 lexical phrases in this sub-function which constituted 25 per cent of all topic generalisations. The sub-function of author's comments / conclusions / inferences follows overview in frequency of use. It included 15 lexical phrases that made up 19 per cent of all lexical phrases functioning as topic generalisations. The sub-function of examples / definitions supplied by the author was the third in frequency order in lexical phrase use. It had 13 lexical phrases that covered 17 per cent of all topic generalisations. The other sub-functions of topic generalisations contain 10 or less lexical phrases.

Table 4.19. Distribution of lexical phrases in topic generalisations

Sub-functions	*n*	%
Overview	19	24.67
General research practices	7	9.09
General findings	7	9.09
Background information about phenomenon	6	7.79
Author's comments / conclusions / inferences	15	19.48
Author's proposals	10	12.98
Examples / definitions supplied by the author	13	16.88
Total	77	100

A list of topic generalisations used in the data are presented in Table 4.20. Polywords are indicated with a big dot. The other lexical phrases are sentence builders.

Table 4.20. Lexical phrases of making topic generalisations

1. Overview (theories / hypotheses / models / issues / variables)
   - This research has dealt with matters such as .... (MLJ5: 6)
   - Researchers influenced by ... have used logical models of .... (SSLA3: 2)
   - Researchers espousing this view have maintained that .... (SSLA3: 3)
   - *Name of research area* and *name of research area* researchers both study *phenomenon* in terms of .... (SSLA2: 4)
   - These two lines of investigation converge around the issue of identifying the effects of ... on .... (SSLA3: 8)
   - In particular, these two research domains have come together in the study of *phenomenon*. (SSLA3: 9)
   - This approach follows current research trends in the area, in that it investigates .... (AL3: 24)
   - This argument has been extended from *name of research area* to *name of research area* research by *name of research area* researchers investigating .... (SSLA3: 4)
   - Theories of both ... and ... predict that .... (SSLA5: 49)
   - Developments in *name of research area* have led to improvements in .... (AL5: 6)
   - Among the foundations of *name of research area* research on ... are .... (MLJ5: 1)
   - Research on *phenomenon* has utilized these foundations to view ... as .... (MLJ5: 2)
   - *Name of theory* involves the complex interplay of a number of variables. (MLJ4: 4)
   - One approach to understanding *phenomenon* has been based on the hypothesis that .... (LL3: 1)
   - These factors have been known to influence .... (LL4: 15)
   - It has even been predicted that .... (SSLA2: 5)
   - The result has been the appearance of a number of different *phenomenon* taxonomies. (AL3: 9)
   - Although the importance of *phenomenon* has been claimed for ..., conclusions about its role in ... have often seemed contradictory. (AL4: 6)
   - Though the use of ... is generally considered sound pedagogical practice, the theoretical and empirical support for the efficacy of ... for facilitating ... is less than conclusive. (MLJ1: 8)
2. General research practices
   - *Name of research area* researchers studying the effects of ... have conducted both observational and experimental studies of .... (SSLA3: 5)
   - As different *phenomena* have emerged from the data a challenging task for researchers has been to find useful ways of classifying them. (AL3: 8)
   - Both areas of study refer to ... to explain the data and results that are obtained

from individual analyses. (SSLA2: 2)
- In part, this lack of research is due to the difficulty of operationalizing .... (SSLA4: 26)
- Unfortunately, the very complexity and the individualized nature of the problem make it difficult to examine .... (AL1: 10)
- There are a variety of ways in which researchers have gone about the task of identifying .... (AL3: 13)
- *Phenomenon* was considered to be ..., although this led to descriptive conflicts. (AL4: 16)

3. General findings
   - Previous *name of research area* research has shown that .... (SSLA5: 4)
   - Past research on *phenomenon* has shown that .... (SSLA1: 1)
   - Research has found *phenomenon* to exhibit features of .... (MLJ1: 13)
   - Other studies of *phenomenon* have not found ... effect, however. (SSLA5: 43)
   - There is now substantial evidence that lends support to .... (MLJ3: 1)
   - *Name of research area* researchers have found that the following conditions occur during ... experiences: .... (MLJ4: 5)
   - *Aspect of phenomenon* has been found to be .... (SSLA2: 7)
4. Background information about phenomenon
   - Among those characteristics [*of the phenomenon*] is .... (MLJ1: 14)
   - One key difference between *phenomenon* and *other phenomenon* is .... (AL4: 3)
   - *Phenomenon* possesses many unique characteristics as well. (MLJ1: 16)
   - Characteristics of *phenomenon* include .... (MLJ1: 15)
   - *Aspect of phenomenon* includes many more ... than .... (MLJ1: 19)
   - The impact of various ... factors may fluctuate under differing ... conditions. (LL4: 12)
5. Author's comments / conclusions / inferences
   - A further advantage of this approach to the study of *phenomenon* is that it might also help researchers to determine why .... (AL3: 22)
   - It might also help explain why .... (AL3: 23)
   - These two observations would appear to be entirely consistent with *name of researcher*'s hypothesis of .... (AL2: 12)
   - *Phenomenon* may provide an ideal medium for ... to benefit from ... primarily because .... (MLJ1: 23)
   - If it could be demonstrated that ..., then this would give some insight into .... (AL3: 21)
   - In a sense, the shift they propose from focusing on ... to exploring ... is congruent with the paradigm change in *name of research area*. (LL1: 21)
   - There is a need to use tools that .... (AL1: 11)
   - Although ... may be useful from an experimental standpoint, it is not typical of .... (MLJ5: 27)
   - Seduced by ..., we may be tempted to assume that .... (MLJ1: 11)
   - ... as a data collection instrument seems to be less intrusive in many ways than .... (MLJ1: 7)
   - From this perspective, one could posit that ... is of less benefit in ... than in ....

(MLJ5: 23)
- One could further posit that ... results in less effective ... because .... (MLJ5: 24)
- Growing understanding of ... offers the potential for comparative studies and raises the possibility of drawing on ... knowledge in the interpretation of .... (AL5: 10)
- Thus, they should also be robust determinants of *phenomenon*. (LL4: 16)
- The two theories make opposite predictions for ..., however. (SSLA5: 50)

6. Author's proposals
   - At the present stage of the research on ... the emphasis must continue to be on reliable descriptions of .... (AL2: 19)
   - Presently, our goal remains that of describing .... (AL2: 20)
   - It is hoped that a combination of ... and ... approaches may provide insight into ... and encourage a more systematic ... treatment. (AL5: 5)
   - A study of the nature of the role of these factors in ... may not only contribute to ..., but also help to explain .... (LL4: 17)
   - Evidence that ... would provide support for the connection between ..., ..., and ..., and it may further our understanding of .... (SSLA4: 24)
   - These ... exemplify ... and thus provide an interesting test case for the question as to what happens to .... (SSLA5: 3)
   - Universal preferences for ... might make ... particularly well suited for .... (SSLA5: 40)
   - An alternative approach is to concentrate on ..., and to look for areas where .... (AL3: 18)
   - Because of ..., we may capture and readily access this ... for both research and pedagogical purposes. (MLJ1: 6)
   - Given this rhetorical significance, it seems logical to investigate whether .... (LL1: 17)

7. Examples / definitions supplied by the author
   - For example, ... (MLJ1: 17; MLJ5: 14; SSLA5: 18)
   - For example, there may be some occasions when .... (LL4: 10)
   - These are not the only instances of *phenomenon*, but they are sufficient to illustrate how .... (LL1: 11)
   - *Phenomena*, in which ..., exemplify this process. (SSLA4: 11)
   - An example of *phenomenon* is a situation in which .... (MLJ5: 17, 19)
   - An overlay of *phenomenon* is shown in Figure .... (AL4: 25)
   - In the following .... (LL1: 3)
   - *Phenomenon* refers to a situation in which .... (MLJ5: 16, 18)
   - *Phenomena* are defined in different ways by different researchers. (AL3: 3)

Reviewing items of previous research

The most frequent sub-function of reviewing items of previous research in terms of lexical phrase use was arguments / hypothesis / models in the literature (See Table 4.21.). It included 43 of the 96 lexical phrases of review of literature, and constituted 45

per cent of all lexical phrases of literature review. The other sub-functions had few lexical phrases in comparison, and together they made only a little more than half of the lexical phrases of reviewing items of previous research. Among these, findings was the most frequent category in lexical phrase use. It had 26 lexical phrases in total that constituted 27 per cent of all reviews of previous research. The sub-function of quotations was the one which contained the lowest number of lexical phrases among all sub-functions of review of previous research. It had 5 lexical phrases that made up 5 per cent of all lexical phrases of review of literature.

Table 4.21. Distribution of lexical phrases in reviewing items of previous research

Sub-functions		*n*	%	
Research issues / directions		11	11.45	
Findings	General	13	13.54	27.08
	Specific	13	13.54	
Arguments / hypothesis / models in literature		43	44.79	
Quotations		5	5.20	
Definitions / examples from literature		11	11.45	
Total		96	100	

The following is a list of lexical phrases that have the function of reviewing items of previous research (See Table 4.22.).

Table 4.22. Lexical phrases of reviewing items of previous research

1. Research issues / directions
   - There are studies in which ... *(citation)*. (LL3: 8)
   - There are also large-scale cross-sectional studies of *phenomenon (citation)*. (LL3: 10)
   - There has also been some empirical research into *phenomenon (citation)*. (AL5: 9)
   - A recent trend in this area is for researchers to base their classifications on ..., rather than ... *(citation)*. (AL3: 11)
   - These studies provide data against which a study isolating *name of variable* in *phenomenon* may be compared. (LL3: 11)

- *Researchers of a field* have not only selected relevant variables to describe ..., but they have also succeeded in describing ... in terms of such variables *(citation)*. (SSLA2: 8)
- Research into *aspect of phenomenon* goes back at least ... years *(citation)*. (AL3: 7)
- In order to identify ..., *name of researchers (year)* investigated .... (LL5: 10)
- *Name of researcher* and others *(citation)* have investigated *phenomenon*. (MLJ4: 3)
- In short, the purpose of the previous study was to examine .... (AL2: 10)
- Of particular interest was the degree to which .... (AL2: 8)

2. Findings

General:
- Research suggests that ... *(citation)*. (MLJ1: 4)
- Research investigating *phenomenon* has found that ... *(citation)*. (LL3: 5)
- This research has identified various ... features typical of ... *(citation)*. (SSLA3: 6)
- *Name of research area* research has begun to explore the effects of ... on ... and has found that ... *(citation)*. (SSLA3: 7)
- Recent advances in *name of research area* have shown that ... *(citation)*. (SSLA2: 1)
- The studies on *phenomenon* previously noted *(citation)* have demonstrated .... (SSLA5: 31)
- *Phenomena* have been shown to abound in ... *(citation)*. (MLJ1: 10)
- *Phenomena* have been reported to be largely optional in ... *(citation)*. (MLJ1: 18)
- *Name of variables* have also been observed during *phenomenon (citation)*. (MLJ1: 22)
- Results from the majority of studies that have investigated *aspect of phenomenon (citation)* have proved either inconclusive or contradictory *(citation)*. (LL1: 18)
- *Name of researchers* review recent research indicating that .... (AL1: 5)
- *Name of researcher (year)* concluded from a wealth of research that .... (MLJ2: 10)
- *Name of researchers (year)* summarized findings from experimental and quasi-experimental investigations into the effectiveness of *phenomenon* published between *year* and *year* and found that .... (MLJ3: 2)

Specific:
- They also reported robust evidence to suggest that .... (MLJ3: 3)
- *Name of researcher (year)* reported that .... (LL4: 3)
- The researchers found that .... (LL5: 11)
- *Name of researchers (year)*, however, found that .... (SSLA5: 47)
- *Name of researchers (year)*, *name of researcher (year)*, and *name of researcher (year)* all found *aspect of phenomenon* applying across .... (SSLA5: 44)
- *Name of researcher (year)*, however, found an asymmetry between ... and .... (SSLA5: 36)

- For example, *name of researchers* demonstrated that *phenomenon* had a significant, negative effect on .... (SSLA5: 9)
- They concluded that .... (LL5: 12)
- *Name of researcher (year)* presented evidence consistent with this position by demonstrating that .... (MLJ5: 25)
- A subsequent study of *subjects* revealed a similar pattern of .... (LL5: 14)
- In contrast to the findings in the earlier *name of research area* study, *subjects* reported more ... than *subjects*. (LL5: 15)
- In his study, *subjects* were significantly more likely to ... than they were to ... (SSLA5: 37)
- *Name of researcher (year)* showed that .... (AL3: 19)

3. Arguments / hypothesis / models in literature
   - *Name of researcher*(s) (year, page number) suggest(s) / suggested that .... (MLJ4: 8, 9; SSLA5: 45)
   - Following up on these findings, *name of researcher (year)* suggested that .... (SSLA5: 33)
   - *Name of researcher* suggests a *name of research area* theory which includes .... (AL1: 3)
   - As early as *year*, *name of researcher* suggested a taxonomy of .... (AL1: 4)
   - In fact, it has been suggested that .... (LL4: 13)
   - It has been further suggested that the findings have implications for .... (LL3: 4)
   - *Name of researchers (year)* claim .... (AL4: 23)
   - *Name of researchers* claim that one reason for conflicting research findings to date has been .... (AL1: 7)
   - *Name of theory* claims that ... *(citation)*. (MLJ4: 7)
   - It has also been claimed to be similar in ... to ... *(citation)* and has been associated with ... *(citation)*. (AL4: 11)
   - This conflation has also been claimed for ... *(citation)*. (AL4: 15)
   - (In the same vein,) *name of researcher*(s) *(year)* argued that .... (MLJ2: 5, 7, 9, 12)
   - (A number of) researchers have argued that ... *(citation)*. (SSLA4: 10; AL5: 8)
   - Other studies *(citation)* have argued that .... (SSLA5: 32)
   - It has been argued that ... *(citation)*. (LL3: 3)
   - This has led *name of researcher (year)* and others *(citation)* to argue in effect that .... (LL1: 19)
   - *Name of researcher*(s) *(year)* noted that .... (SSLA5: 14, 28)
   - *Name of researcher* attributed this asymmetry to .... (SSLA5: 38)
   - *Name of researcher (personal communication)* attributes much of the confusion about *phenomenon* to .... (AL4: 13)
   - *Name of researcher (year)* agreed that .... (MLJ2: 11)
   - They counter that .... (LL1: 20)
   - These researchers recognize that .... (AL1: 9)
   - These publications have emphasized that .... (SSLA5: 8)
   - *Name of hypothesis (citation)* predicts that .... (LL3: 2)
   - In *year*, *name of researcher* proposed the use of ... as a means to test his general

model of *name of research area*. (AL1: 12)
- They advocate investigation of .... (AL1: 8)
- *Group of* researchers have championed *phenomenon (citation)*. (AL4: 7)
- *Name of researcher (year)* adopts a ... perspective which takes account of .... (AL3: 16)
- *Name of researcher (year)* uses *name of researcher*'s *(year)* ... model of ... to draw up a taxonomy referred to as .... (AL3: 17)
- According to *name of researcher*'s *name of hypothesis (citation)*, ... (SSLA4: 22)
- This argument echoes what *name of researchers (year)* called .... (MLJ2: 8)
- Two general observations suggested the necessity of refining the notion of ...: (1) ...; (2) .... (AL2: 11)
- They proposed a framework of .... (LL5: 13)
- *Name of researchers (year)* offer a taxonomy ... based on .... (AL3: 15)
- *Name of researcher (year)*, *name of researchers (year)*, and *name of researcher (year)* note the many and individualized aspects of *phenomenon*. (AL1: 2)
- *Name of researcher (year)* takes *phenomenon* and divides it into .... (AL3: 14)

4. Quotations
   - *Name of researchers (year)* say that *quotation*. (AL4: 19)
   - *Quotation*, they state *(year, page number)*. (AL1: 6)
   - This belief is asserted by *name of researcher (year)*, who says that *quotation*. (AL4: 22)
   - As *name of researcher* comments: *quotation (citation)*. (AL5: 11)
   - *Name of researcher (year)* also points to the importance of *phenomenon*: *quotation (page number)*. (SSLA4: 23)

5. Definitions / examples from literature
   - *Name of researcher (year)* has described such *phenomenon* as .... (MLJ1: 24)
   - Those experiencing *phenomenon* describe it as ... *(citation)*. (MLJ4: 6)
   - However, traditional ... accounts on *phenomenon* have described *phenomenon* as ... *(citation)*. (AL4: 20)
   - *Phenomena* have generally been described as ... *(citation)*. (SSLA4: 16)
   - Some *(citation)* restrict their definition of *phenomenon* to cases in which ..., whereas other researchers *(citation)* consider them to include .... (AL3: 4)
   - These *phenomena* are referred to by some researchers *(citation)* as .... (AL3: 6)
   - *Name of researcher (year)* called *phenomenon* .... (AL4: 9)
   - *Name of researcher (year)* represents *phenomenon* as .... (MLJ4: 1)
   - In his words, *phenomenon* represents .... (MLJ4: 2)
   - Although there is variation, this definition has been widely adopted in *name of research area (citation)*. (SSLA4: 17)
   - *Examples of phenomenon* have been accounted for with reference to ... *(citation)*. (AL5: 7)

In the following, results for lexical phrases of establishing a niche are presented.

Counter-claiming

The 2 counter-claims in the data are given below in Table 4.23.

Table 4.23. Lexical phrases of counter-claiming

- These paradoxical claims concerning *phenomenon* can be reconciled by recognizing that .... (AL4: 12)
- The contradictions can be reconciled by recognizing .... (AL4: 24)

Indicating a gap

The list of lexical phrases of indicating a gap can be seen in Table 4.24. below.

Table 4.24. Lexical phrases of indicating a gap

- Even when data are collected about ..., the focus tends to be on ... only, with little effort to systematically build and utilize knowledge pertaining to .... (AL1: 14)
- To date, there has been little systematic investigation of this issue in *name of research area* research. (LL3: 7)
- While contrastive and comparative approaches towards ... have been undertaken in areas such as ... less work has been undertaken as regards *phenomenon*. (AL5: 13)
- However, only a limited amount of research has focused specifically on *phenomenon* from the perspective of .... (MLJ5: 7)
- Scarce, however, is research investigating .... (LL4: 14)
- Currently, there is a paucity of work that directly investigates .... (SSLA4: 25)
- ..., but it is still largely unknown whether .... (MLJ2: 3)
- Although *phenomena* have been investigated in ..., the usability and use of *phenomena* in ... is far from clear. (LL2: 2)
- In the absence of data from ..., it is difficult to know the degree to which the observed patterns are generalizable. (LL3: 9)
- Many researchers and theoreticians recognize the need to examine a wide variety of *name of research area* variables. (AL1: 1)
- Although these studies shed light on ..., a more fruitful methodology for tapping ... needed to be found. (LL5: 17)
- The studies underlined the need for systematic investigation of *phenomenon*. (MLJ3: 5)
- A comprehensive understanding of *phenomenon's* benefits requires consideration of .... (SSLA3: 11)
- Further research testing the validity of ... is clearly called for. (SSLA5: 48)
- In a recent state-of-the-art article on *phenomena, name of researcher (year)* calls for further investigation into .... (LL5: 2)
- *Name of researcher (year)*, in his review of ..., calls for further investigation into .... (LL5: 3)
- Although *name of research area* has led to many developments related to our understanding of ..., the potential of this approach in other areas of ... could be exploited more fully. (MLJ5: 3)

Question-raising

7 lexical phrases of question-raising in the data appear in Table 4.25.

Table 4.25. Lexical phrases of question-raising

- For this reason we are at present unable to answer such questions as: ...? (AL5: 14)
- This type of ... draws into question the role of *phenomenon*. (MLJ5: 15)
- A research question of both theoretical and pedagogical importance is whether and to what degree .... (LL3: 6)
- Which factors contribute to the individual differences observed for *phenomenon*, and under what conditions? (LL4: 2)
- Why is the rate of *phenomenon* lower for some ... as opposed to others? (LL4: 1)
- Whether or not similar Matthew effects are observed for ... is an empirical issue for *name of research area* investigating the phenomenon of .... (LL4: 4)
- If ... we may well ask ourselves whether it is possible to speak of ... and if so .... (AL5: 12)

Continuing a tradition

Table 4.26. shows the 2 lexical phrases of continuing a tradition used in the data.

Table 4.26. Lexical phrases of continuing a tradition

- The present study reports on a follow-up replication of previous findings that compared ... and .... (AL2: 7)
- The present study was part of a series of studies addressing *phenomenon* from this ... perspective. (MLJ5: 8)

Below, results regarding lexical phrases that occupy the niche are given.

Outlining purposes

20 of the 31 lexical phrases of outlining purposes in the data were related to purpose, and they constituted 65 per cent of all lexical phrases of outlining purposes (See Table 4.27.). There were 11 lexical phrases in the data that belonged to the sub-function of research questions. They made up 35 per cent of all lexical phrases of outlining purposes.

Table 4.27. Distribution of lexical phrases in outlining purposes

Sub-functions	*n*	%
Purpose	20	64.51
Research questions	11	35.48
Total	31	100

Lexical phrases of outlining purposes are presented in Table 4.28. Institutionalised expressions were indicated with an asterisk. The other lexical phrases are sentence builders.

Table 4.28. Lexical phrases of outlining purposes

1. Purpose
   - The (main) purpose (of the current / present study) was to examine, etc. .... (AL1: 16; MLJ2: 1; MLJ3: 6)
   - The purpose of the present study is to investigate whether .... (SSLA1: 5)
   - The purpose of the present study was twofold: first to ..., and, second, to .... (MLJ4: 10)
   - The purpose of the study is not ... but rather to .... (LL1: 25)
   - The (present) study / This study / It examines / seeks to identify *phenomenon.* (LL2: 3; SSLA5: 1, 2; LL5: 8)
   - The study reported in this paper represents .... (AL1: 15)
   - This paper explores the extent to which .... (SSLA4: 15)
   - The current investigation presents an analysis of *phenomenon.* (SSLA2: 6)
   - The present study considers the impact on *phenomenon* of *variables.* (LL4: 18)
   - This paper thus investigates the issue as to .... (SSLA5: 53)
   - This ... is of particular interest to the current study. (MLJ2: 14)
   * This paper begins to provide answers to such questions. (AL5: 16)
   - This article attempts to strengthen our understanding of .... (LL5: 4)
   * The experiment described in this paper explicitly tests these predictions. (SSLA5: 52)
   - The study described in this article looks at ... and investigates the extent to which .... (AL3: 25)
2. Research questions
   - The first / second / central (research) question (posed for the follow-up study / addressed in this study) is (:) .... (AL2: 13, 14; SSLA4: 20)
   - The following research questions are to be addressed: ...? (LL5: 6)
   - I will examine the baseline data collected for the main study to answer the following questions: ...? (LL5: 9)
   * This substudy, in particular, focuses on the first research question. (LL5: 7)
   - Two questions in particular arise: ...? (SSLA5: 54)
   - The present study was an examination of whether .... (MLJ5: 26)
   - The present study was exploratory in nature in that it sought to determine .... (MLJ1: 28)
   - This study also attempted to determine whether .... (MLJ1: 30)
   - It investigates whether or not .... (AL3: 26)

Announcing present research

A great majority of lexical phrases that had the function of announcing present research were in the sub-function of methodology (See Table 4.29.). It included 12

lexical phrases that made up 60 per cent of all lexical phrases of announcing present research. In the other sub-functions of announcing present research, lexical phrase use was less, i.e., between 4 and 2.

Table 4.29. Distribution of lexical phrases in announcing present research

Sub-functions	*n*	%
Methodology	12	60
Operational definitions	4	20
Limitations	2	10
Miscellaneous	2	10
Total	20	100

The list of lexical phrases of announcing present research is in Table 4.30.

Table 4.30. Lexical phrases of announcing present research

1. Methodology
   - The study reported here is part of a ...-year longitudinal investigation of *phenomenon*. (LL5: 5)
   - The present study compared a condition in which ... to a condition in which .... (MLJ5: 31)
   - The data for the study come from .... (LL1: 24)
   - The data examined in this paper are .... (SSLA1: 6)
   - The current research evaluates data from .... (SSLA2: 9)
   - This model is used to devise a research instrument that aims to investigate .... (AL5: 18)
   - The most widely used model of ... was employed to evaluate .... (MLJ1: 29)
   - *Variable* is measured in terms of .... (AL5: 20)
   - Therefore, one of the challenges for this study was to develop a means of measuring *variable*. (SSLA4: 28)
   - As such, it provides a useful tool for investigating how .... (LL1: 23)
   - This analysis makes it possible to evaluate whether the hypothesized correspondence between ... and ... is an accurate description of .... (SSLA2: 10)
   - This is then implemented in a small-scale piece of empirical research with a sample of .... (AL5: 19)
2. Operational definitions
   - (In this study,) *variable* was (operationally) defined by .... (AL4: 28, 32)
   - *Phenomena* in the present study included .... (SSLA4: 18)
   - Using ... to distinguish *phenomena* was necessary because .... (AL4: 30)
3. Limitations
   - As the study is only a preliminary exploration of ..., it is limited to *aspect of phenomenon*. (AL3: 28)
   - *Phenomena* that are examined in this study conform to the narrower definition. (AL3: 5)

4. Miscellaneous - This is the context of the present study of *phenomenon* where .... (AL2: 5) - The present study begins with the premise that .... (LL1: 22)

Announcing principal findings

Table 4.31. below presents the lexical phrases that realise the function of announcing principal findings.

Table 4.31. Lexical phrases of announcing principal findings

- The findings of the present exploratory study suggest a series of reflections regarding .... (AL2: 15) - The findings show evidence that .... (AL5: 21) - The findings themselves fall short of lending support to the hypotheses associated with ...; rather, they suggest directions for further research along the lines of .... (AL2: 22) - The exceptional circumstances of ... make the results sufficiently non-trivial; nonetheless, the findings do turn out to be predictable. (AL2: 16) - However, if they [the findings] could be confirmed by further larger scale research they would support the view that .... (AL5: 22) - These same exceptional circumstances point to the need to sharpen our conception of *phenomenon*. (AL2: 17)

Indicating RA structure

Lexical phrases having the function of indicating RA structure are in Table 4.32. An asterisk was used to indicate the institutionalised expression. Those with no asterisk are sentence builders.

Table 4.32. Lexical phrases of indicating RA structure

- In the first section, this document describes and models the relationship between ... and .... (MLJ4: 11) - The next section suggests ... and presents .... (MLJ4: 13) - The third section presents the results of an initial field study that involved determining whether .... (MLJ4: 14) - The final section then focuses on the limitations and implications of the findings for ... and suggests directions for future research related to .... (MLJ4: 15) - Also included in this section is a brief discussion of .... (LL2: 5) - The following discussion of ..., and the proposal for ... is presented here as a tentative descriptive scheme for the purpose of reporting and interpreting the results of the study. (AL2: 21) - Before outlining how this issue was addressed in the two studies of ..., I will begin with an overview of *name of hypothesis*, its predictions for ..., and the existing evidence for the predictions. (LL3: 12) - After a review of the literature on *phenomenon*, an experiment that addresses these

questions will be described. Implications for further *name of research area* research will also be noted. (SSLA5: 55, 56)
- The article presents a brief overview of research to date and the results from a study conducted by the researcher. (MLJ3: 7)
- Initially, after surveying the literature, I contrast ... and .... (AL5: 17)
- As background for the present study, I first examine the claims made for ... and then review the research on *phenomenon*. (LL2: 4)
* This taxonomy is outlined below. (AL3: 29)
- I will describe the differences between ... a little later on. (SSLA1: 4)

5. CHAPTER: DISCUSSION

This chapter consists of two sections: function analysis, and lexical phrase analysis.

5.1. Discussion of the Results of the Function Analysis

The results showed that establishing a territory was the most frequently used macro function in the data while establishing a niche was the least frequently used one. It is not surprising that sentences of establishing a territory in the data to be high as producing many sentences is usually needed to establish a territory. Authors should demonstrate in RA introductions that the research issue is worth investigating, and therefore, they review previous research, and give background information about the phenomenon. It is not surprising, either, that the number of sentences that establish a niche in the data to be low as authors identify a research problem in this macro function, and this can be done even with a single sentence.

The results of the function analysis demonstrated that topic generalisations and reviewing items of previous research (i.e., micro functions of establishing a territory) together formed two-thirds of the data while the other nine functions formed just one-thirds of the whole data. The research article authors used much more sentences to realise the functions of topic generalisations and reviewing items of previous research than to realise other functions. This is probably because topic generalisations and reviewing items of previous research give background information about the subject matter of a study, and this requires producing more sentences than those necessary for other functions. This might have caused the number of sentences of topic generalisations and reviewing items of previous research to be much higher than that of other functions in the data.

Indicating a gap was the most frequently used function among those that established a niche in the data. In a research area, if the majority of research identify gaps, this suggests that the research area is a new one, and that there are many issues which are yet uninvestigated. The other three functions that establish a niche can be

found in studies whose research areas are well-established. Large amounts of previous research or theories are necessary for research article authors to raise a question, or counter-claim, or continue a tradition. The reason why sentences of gap indication were more frequent than those of other functions of establishing a niche in the present data might be that most of the researchers of the data might have preferred to study on new research areas with a number of gaps. This eventually might have caused the number of gap indication in the data to be frequent.

Outlining purposes and announcing present research were the most frequent functions in occupying the niche. They are used to state what is investigated in a RA, and this helps the aim of the study to be truly understood. Therefore, it is quite normal that these two functions have a high frequency in the data when compared to the other two functions of occupying the niche (i.e., announcing principal findings, and indicating RA structure) as they have such a vital role in introductions. However, announcing principal findings and indicating RA structure are not so important to use in a RA since the findings are already given in more detail in later chapters, and the RA structure is already indicated, albeit implicitly, by section titles.

In the function analysis, it was observed that a single introduction could contain more than one centrality claim. The article with the highest number of centrality claims contained 6 centrality claims. Also, there were two introductions each of which had 4 sentences of claiming centrality. This finding fits the CARS model as the use of more than one centrality claim is allowed in the model. On the other hand, there were 6 introductions in the data that did not include any centrality claims. This does not contradict the CARS model as claiming centrality is presented in the model as an optional element in research article introductions.

A great majority of the introductions in the data contained both topic generalisations and reviewing items of previous research. In the data, there was one introduction that used one sentence of topic generalisations, but not reviewing items of previous research. There were also two introductions that included sentences of reviewing items of previous research, but not topic generalisations. The data also contained one introduction in which neither topic generalisations nor reviewing items of

previous research was used. This means that it does not give any background information about the subject matter of the study. All these findings are in agreement with the CARS model because topic generalisations and reviewing items of previous research are optional elements in the CARS model, and an introduction might contain just one of them, or both of them, or not include any of them. In introductions that contained both functions in the data, SSLA5 was the article whose introduction had the maximum frequency of topic generalisations as well as reviewing items of previous research. This high frequency is probably caused by the length of the introduction. SSLA5 was the longest introduction in the data. Therefore, it is quite normal that it is the introduction in which the use of these two functions was the most frequent of all introductions in the data. Apart from this, that most of the topic generalisations and reviewing items of previous research are found in the same introduction raises a question: Does an author who uses topic generalisations frequently also use reviewing items of previous research frequently? In other words, can there be a correlation between the use of topic generalisations and reviewing items of previous research? It is found that there is a correlation of $r = 0.46$ between the uses of these two functions in the data. This suggests that the correlation between them is weak.

The CARS model presents outlining purposes and announcing present research as obligatory elements of occupying the niche, and announcing principal findings and indicating RA structure as optional ones. Although the latter two functions are optional in the CARS model, the data of this study include both of them. Of these two functions, announcing principal findings was present in three introductions of AL. However, all journals in the data contained indicating RA structure. This suggested that indicating RA structure was given more importance than announcing principal findings in the data.

The CARS model offers outlining purposes and announcing present research as two choices for the obligatory element of occupying the niche. It means that a research article author has to use only one of them in his paper. However, half of the introductions in the data used both of these two functions. On the other hand, the data included two introductions in which neither of them was used. The other introductions in the data used either outlining purposes or announcing present research. However,

outlining purposes was preferred significantly more often than announcing present research in situations where one of them was used.

Among the four journals in the data LL was the one whose introductions used the three functions of establishing a territory (i.e., claiming centrality, making topic generalisations, and reviewing items of previous research) least frequently. This might have been caused by the fact that LL introductions were short. This might have also caused the authors of LL articles to realise all these three functions with a fewer number of sentences. The AL introductions, however, seem to have used these functions most frequently. This might be probably because AL introductions were long.

In AL introductions, sentences of reviewing items of previous research were used more frequently than those of topic generalisations. This shows that AL articles refer more to specific research than to general research findings. It might be because they want to give well-documented background information about their subject matters. SSLA introductions, on the contrary, used topic generalisations more than reviewing items of previous research. This suggests that citation is not given as much importance in SSLA articles.

The journals in the data do not seem to have differed significantly from each other in the use of functions that establish a niche. However, one important point is that AL introductions include all of these four functions of establishing a niche whereas others include less than four functions of establishing a niche.

5.2. Discussion of the Results of the Lexical Phrase Analysis

The results of the lexical phrase analysis demonstrated that lexical phrases constituted approximately three-fourths of the whole data. This high number is an indication that lexical phrase use in research article introductions is important. It suggests that there are conventions in research article introductions which determine how to express certain functions. The results showed that research article authors wrote their introductions according to the conventions of their research communities.

The results showed that almost all the lexical phrases in the data were sentence builders. This signifies that sentence builders in all four types of lexical phrase (i.e.,

polywords, institutionalised expressions, phrasal constraints, and sentence builders) are the one which has the highest capacity to perform discourse functions in research article introductions.

The results also showed that there was a high correlation between the number of lexical phrases of discourse functions and the number of sentences that realised those functions. Thus, as the number of sentences for a function increases, the number of lexical phrases tends to increase as well. However, an examination of the proportion of lexical phrases to non-lexical phrases within a given function suggests otherwise. In among all discourse functions, lexical phrase use was the most frequent in topic generalisations and reviewing items of previous research. Although they had more lexical phrases than other functions, the proportion of lexical phrases in all sentences that realised the same functions was lower than that of the other functions. This proportion was lowest in the data for topic generalisations. This suggests that the sentences of these two functions are less formulaic than those of other functions. The reason why there is a lower formulaicity in these two functions when compared to other functions might be that their use is very subject-specific. In other words, the expressions that RA authors use for these functions will differ as the research topic of every article is different. It is probable that not many conventions have been developed for these functions; therefore, number of lexical phrases is also low for these discourse functions.

The data included three functions in which the number of lexical phrases was equal to the number of sentences of a function. For these three functions, each sentence contained a lexical phrase. Two of these functions are counter-claiming and continuing a tradition. However, the results regarding these functions are not very significant as they were very limited in number in the whole data. It means that it can be explained as a coincidence that each sentence for these functions should contain a lexical phrase since their numbers are few in the data. The third of the three functions is outlining purposes in which the number of lexical phrases is equal to that of the sentences of the same function. The results concerning outlining purposes are very significant contrary to those for the former two functions as outlining purposes constitutes a considerable proportion of the data. This, obviously, cannot be explained as a coincidence as the

frequency of outlining purposes is high in the data. However, the fact that a lexical phrase is found in each sentence of this function shows that the use of this function is highly conventionalised. The high degree of conventionalisation of this function can be explained by its relative importance to the understanding of the whole article. Outlining purposes is an important function as it is crucial that the aim of the study is truly understood. Therefore, a research article author needs to use clear expressions to realise this function. The best way to do this is to use conventional expressions so that no misunderstanding occurs on the audience.

The proportion of lexical phrases in the other functions in the data varies between 93 per cent and 58 per cent. This suggested that more than half of all of the sentences that realised a function included a lexical phrase.

As it has been mentioned, most of the lexical phrases in the data were topic generalisations and reviewing items of previous research. These two functions seem to have differed considerably in the number of lexical phrases that they contain. Lexical phrases of reviewing items of previous research constitute 77 per cent of all sentences of this function. On the other hand, only 58 per cent of the sentences that function as topic generalisations in the data contained lexical phrases. Although the frequencies of the sentences that realise these two functions in the whole data were very close to each other, it seems that sentences of topic generalisation contain less lexical phrases than those of reviewing items of previous research. This suggests that sentences of topic generalisations are less formulaic than those in reviewing items of previous research. The decreased formulaicity in topic generalisations might be explained by non-conventionality in this function. Topic generalisations sometimes give information specific to the subject matter. This might have caused conventional expressions not to have developed for topic generalisations. Thus, the fact that there is not a large amount of conventional utterances functioning as topic generalisations in research article introductions might have an impact on the number of lexical phrases of topic generalisations.

In the data, lexical phrases of indicating RA structure, indicating a gap, claiming centrality, and announcing principal findings were found in sentences that had these

functions at varying degrees, i.e., between 75 and 93 per cent. This suggests that there is a relatively high formulaicity in sentences realising these four functions.

Outlining purposes and announcing present research have been proposed as alternatives to one another in the CARS model. As being two different functions, they also differ in lexical phrase use. Lexical phrases of announcing present research constitute only 69 per cent of all sentences of this function. This means that formulaicity is not at its maximum level in this function. However, each of the sentences of outlining purposes includes a lexical phrase signifying that sentences functioning as outlining purposes are completely formulaic. The function of outlining purposes is more specific than announcing present research. The number of sub-functions in each of these functions supports this view. Outlining purposes has only two sub-functions while announcing present research has four sub-functions. It is not surprising that more conventions should have been developed for outlining purposes as the focus is on two sub-functions only. In announcing present research, utterances do not seem to have conventionalised as much as those in outlining purposes as the focus diverges among the four sub-functions.

In the data, there are five functions that have sub-functions. These are claiming centrality, making topic generalisations, reviewing items of previous research, outlining purposes, and announcing present research. The sub-functions of claiming centrality do not seem to have differed greatly in the number of lexical phrases that they contain. This signifies that the sentences that realise these two sub-functions are almost equally formulaic. Of the seven sub-functions of topic generalisations, overview is the most frequent one in lexical phrase use. An explanation for this is that overview might have a more common use in research article introductions than the other sub-functions of topic generalisations. Most topic generalisations would involve an overview of the field. It is highly expectable that more conventions were developed for overview than for other sub-functions of topic generalisations as the sub-function of overview can be found nearly in all research article introductions. Because this function is very frequent, it is predictable that lexical phrase use should also be frequent for overview sub-function of topic generalisations in the introductions of research articles. Therefore, it is normal that

lexical phrases of overview are the most frequent among all sub-functions of topic generalisations in the data.

On the other hand, the least frequent use of lexical phrases of topic generalisations in the data is found in the sub-function of background information about phenomenon. In research article introductions, it is quite common to give information specific to phenomenon. It is unlikely that conventional expressions would have been developed for background information about phenomenon as the phenomenon of every research article cannot be expected to be the same. Consequently, the number of lexical phrases of this sub-function will also be low in research article introductions in general as it is in the data of the present study.

Arguments / hypothesis / models in the literature is the most frequent one of five sub-functions of reviewing items of previous research in lexical phrase use. It includes nearly half of the lexical phrases of reviewing items of previous research. This suggests that it is used very frequently by research article authors in introductions. Therefore the fact that conventions should have developed was quite predictable. It seems that this has resulted in an increased number of lexical phrases in RA introductions as observed in the data of the present research.

Contrary to arguments / hypothesis / models in the literature, quotations is the least frequent sub-function of reviewing items of previous research in lexical phrase use. This infrequency might have been caused by the general infrequent use of quotations in research article introductions. In other words, not many conventions have been developed for quotations as they are not used very frequently in RA introductions. This also might have had an impact on the number of lexical phrases available for this sub-function. Considering this, it is unreasonable to expect their number to be high also in the data of this study.

Outlining purposes has two sub-functions: purpose and research questions. Purpose is the one in which lexical phrase use is the more frequent. This might have been caused by the fact that explaining the purpose is more common than mentioning research questions in research article introductions. This also might have caused the

formulaicity in introductions of research articles to increase. That is probably why lexical phrase use is higher for the sub-function of purpose in the data.

From among the four sub-functions of announcing present research, methodology is the one that has the highest number of lexical phrases. It contains more than half of all lexical phrases of announcing present research. This finding of the study demonstrates that there is a general tendency in research article authors towards the sub-function of methodology in introductions resulting in increased formulaicity in the expressions used in this sub-function. It eventually might have also increased the number of lexical phrases of methodology in introductions of RAs as supported by the results of this study.

6. CHAPTER: CONCLUSION

6.1. Conclusions

The study showed that lexical phrases formed three-fourths of the introductions in the data. It means that most of the sentences that realised the functions in the research article introductions in the data were produced by using lexical phrases. This indicates that research article introductions in the data of this study are highly formulaic.

The study has also shown that lexical phrase use is more important in some functions than in others. This significance is at the maximum level for counter-claiming, continuing a tradition, and outlining purposes because all of the sentences that realise these functions contain lexical phrases. The importance of lexical phrase use is less remarkable for announcing present research, question-raising, and making topic generalisations. This is because these three functions are the ones in which lexical phrase use is the lowest in the data although more than half of the sentences of these functions were still produced by using lexical phrases. In indicating research article structure, indicating a gap, claiming centrality, reviewing items of previous research, and announcing principal findings, lexical phrase use is still very important since more than three-fourths of the sentences of these functions include lexical phrases.

Of the four types of lexical phrase, sentence builders were found to be the dominant one in the data. This suggests that the capacity of sentence builders to perform discourse functions in research article introductions is higher than other types of lexical phrase. In other words, functions are signalled mostly by sentence builders.

The study, in a sense, tested the CARS model as it was used as a tool for the lexical phrase analysis, although testing it was not among the objectives of this study. In general, the CARS model was a useful model for the description of the global organisation of research article introductions. It has also some shortcomings, however. First, the moves and steps in the introductions in the data were found not to proceed in a linear order (e.g., Moves 2, 1, 2, 3; or, Moves 3, 1, 2, 1, 3). In other words, they were not at the order proposed in the CARS model. Second, some introductions in the data

were observed to lack Move 2 although it was obligatory as any other move in the CARS model. Also, some introductions in the data contained more than one step of Move 2 (e.g., indicating a gap, and question-raising). However, steps in this move are alternative to each other, and only one of them can be used in an introduction. Third, in Move 3, outlining purposes and announcing present research are also alternatives to one another. However, there were introductions in the data that contained both of them. Fourth, more than half of the introductions in the data did not have indicating RA structure while there were only a few introductions that contained announcing principal findings in the data. In the CARS model, these Step 2 and 3 of Move 3 have been proposed as obligatory steps. However, it cannot be a coincidence that the number of introductions that contained these steps is so low. Therefore, all these raise the question if the CARS model should be revised.

In the analysis of the data according to the CARS model, there were also situations which the CARS model accounted well. One is that every single sentence in the data could be assigned a function by using the steps of the CARS model. Another is that the model worked well to analyse Move 1 and also its steps in the data.

6.2. Further Research

In the study, subjective criteria were used for the operational definition of lexical phrases. In further research, more objective criteria should be used when deciding if an expression is a lexical phrase. One way of doing this is referring to native-speaker judgement. The native speakers to be referred should be research article readers or research writers experienced in the field of applied linguistics so that they can have enough familiarity with the language used in RAs of the field necessary for deciding lexical phrases. Another way is checking the frequency of lexical phrases in a larger computerised corpus. The fact that the frequency of a phrase which is identified as a lexical phrase subjectively is high in such a corpus will provide further support that it is a lexical phrase.

The data used in this study was a small one. Therefore, larger data should be used in further research. There are a number of reasons why using larger data is necessary in lexical phrase studies. First, as mentioned above, frequency search of

lexical phrases in a larger computerised corpus will help to verify that these are lexical phrases. Such a list of lexical phrases as obtained from this study will be useful as a starting point in a frequency search of lexical phrases in larger corpora in further studies. Second, there are many lexical phrases that realise a given function. Finding the frequency of lexical phrases in each function might be important when making decision about teaching. Thus, the most frequent lexical phrases of a function can be given priority in teaching. Third, there were very few lexical phrases for some functions, e.g., counter-claiming, in the data of the study. The number of lexical phrases for these functions might be found to be higher in larger data. Fourth, it is hard to know that the slots in the lexical phrases in this study were given in appropriate places as many lexical phrases were used only once in the data. Therefore, slots in lexical phrases also need to be verified in further research. This verification should again be done by either native speaker judgement, or frequency search.

This study was an investigation of lexical phrases in the RA introductions of the field of applied linguistics. There is also a need to investigate whether the same lexical phrases are used in the RA introductions in other fields, and if so, whether they are used to realise the same functions.

Further research should also compare the lexical phrase use in the articles that are published with those that are rejected. Researchers who will investigate this should seek answers to such questions: Is the rejection of articles caused by the insufficient use of lexical phrases? Or, is lexical phrase use an important factor for a research paper to be published?

In future studies, it should also be investigated if there is a difference in lexical phrase use between native speaker and non-native speaker authors.

Making lexical phrase analyses for the other sections of research articles and providing lexical phrase lists for each section can be very useful for research and pedagogic purposes.

6.3. Suggestions

This study demonstrated the importance of lexical phrase use in research article introductions. It provided evidence that published research articles are written according to the conventions of the disciplinary community. Lexical phrase use in a RA will probably increase the chance for the paper to be published as lexical phrases are one type of element that helps to establish conventionality in RAs. Therefore, lexical phrases can be useful for training in writing research articles of potential RA writers and novice researchers. They can also be used in ESP (English for Specific Purposes) training programmes.

Book writers of academic writing can make use of lexical phrase lists presented by studies like the current study. The lexical phrase list produced by this study and lexical phrase lists for other sections of research papers that will be produced by further studies might be helpful for use as reference material when writing RA introductions or other sections of RAs.

Also, it can be useful for dictionary publishers to prepare lexical phrase dictionaries specific for a research area. This will help the lexical phrase lists that would be obtained from lexical phrase studies to be widely available to users.

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APPENDIX I: LIST OF JOURNALS AND ARTICLES USED IN THE DATA

AL: Applied Linguistics

AL1. Wilhelm, Kim H. 1999 "Building an Adult ESL Knowledge Base: An Exploratory Study Using an Expert System", Applied Linguistics, 20 (4), 425-459.

AL2. Francis, Norbert 2000 "The Shared Conceptual System and Language Processing in Bilingual Children: Findings from Literacy Assessment in Spanish and Náhuatl", Applied Linguistics, 21 (2), 170-204.

AL3. Littlemore, Jeannette 2001 "An Empirical Study of the Relationship between Cognitive Style and the Use of Communication Strategy", Applied Linguistics, 22 (2), 241-265.

AL4. Levis, John M. 2002 "Reconsidering Low-Rising Intonation in American English", Applied Linguistics, 23 (1), 56-82.

AL5. Charteris-Black, Jonathan 2002 "Second Language Figurative Proficiency: A Comparative Study of Malay and English", Applied Linguistics, 23 (1), 104-133.

LL: Language Learning

LL1. Reynolds, Dudley W. 2001 "Language in the Balance: Lexical Repetition as a Function of Topic, Cultural Background, and Writing Development", Language Learning, 51 (3), 437-476.

LL2. Braidi, Susan M. 2002 "Reexamining the Role of Recasts in Native-Speaker / Nonnative-Speaker Interactions", Language Learning, 52 (1), 1-42.

LL3. Collins, Laura 2002 "The Roles of L1 Influence and Lexical Aspect in the Acquisition of Temporal Morphology", Language Learning, 52 (1), 43-94.

LL4. Pulido, Diana 2003 "Modeling the Role of Second Language Proficiency and Topic Familiarity in Second Language Incidental Vocabulary Acquisition through Reading", Language Learning, 53 (2), 233-284.

LL5. Vandergrift, Larry 2003 "Orchestrating Strategy Use: Toward a Model of the Skilled Second Language Listener", Language Learning, 53 (3), 463-496.

MLJ: The Modern Language Journal

MLJ1. Smith, Bryan 2003 "Computer-mediated Negotiated Interaction: An Expanded Model", The Modern Language Journal, 87 (1), 38-57.

MLJ2. Morin, Regina 2003 "Derivational Morphological Analysis as a Strategy for Vocabulary Acquisition in Spanish", The Modern Language Journal, 87 (2), 200-221.

MLJ3. Erlam, Rosemary 2003 "The Effects of Deductive and Inductive Instruction on the Acquisition of Direct Object Pronouns in French as a Second Language", The Modern Language Journal, 87 (2), 242-260.

MLJ4. Egbert, Joy 2003 "A Study of Flow Theory in the Foreign Language Classroom", The Modern Language Journal, 87 (4), 499-518.

MLJ5. Barcroft, Joe 2003 "Effects of Questions about Word Meaning during L2 Spanish Lexical Learning", The Modern Language Journal, 87 (4), 546-561.

SSLA: Studies in Second Language Acquisition

SSLA1. Jarvis, Scoot 2002 "Topic Continuity in L2 English Article Use", Studies in Second Language Acquisition, 24 (3), 387-418.

SSLA2. Geeslin, Kimberly L. 2002 "The Acquisition of Spanish Copula Choice and its Relationship to Language Change", Studies in Second Language Acquisition, 24 (3), 419-450.

SSLA3. Leeman, Jennifer 2003 "Recasts and Second Language Development: Beyond Negative Evidence", Studies in Second Language Acquisition, 25 (1), 37-63.

SSLA4. Philp, Jenefer 2003 "Constraints on Noticing the Gap: Nonnative Speakers' Noticing of Recasts in NS-NNS Interaction", Studies in Second Language Acquisition, 25 (1), 99-126.

SSLA5. Zsiga, Elizabeth C. 2003 "Articulatory Timing in a Second Language: Evidence from Russian and English", Studies in Second Language Acquisition, 25 (3), 399–432.

APPENDIX II: FUNCTION ANALYSIS

Move 1- Step 1 / Claiming Centrality

- Learning to read and write in one's first or primary language is a circumstance that is simply taken for granted in many countries as the norm. (AL2: 1)
- However, in situations of extensive language contact and societal multilingualism it is often more common than not that literacy is taught to children in a second language, one that is either used less frequently than the first language, or over which the pre-literate student commands only partial competence, or even in many cases none at all. (AL2: 2)
- For many investigators who study the process of becoming literate, the circumstances of L2 literacy present the most interesting cases, offering opportunities to examine situations where the linguistic variables and social relations interact in ways that reflect degrees of variation and imbalances not present in the 'normal' first language literacy scenario. (AL2: 3)
- In the study of L2 literacy, key aspects of learning and development in general become salient. (AL2: 4)
- Interest in communicative language teaching has led researchers in applied linguistics to focus on the use of communication strategies (CSs) by second language (L2) learners. (AL3: 1)
- The study of CSs is important, as it looks at how learners are able to use the L2 in order to convey meaning. (AL3: 2)
- Low-rising intonation has been included in most accounts of English intonation in both the British and American traditions. (AL4: 1)
- Along with falling, high-rising, and falling-rising contours, it is one of the small group of contours (called consensus contours by Ladd 1980) agreed upon by most researchers as being meaningful in a wide range of utterance types. (AL4: 2)
- However, the contour's importance has also been claimed by American researchers. (AL4: 8)
- Figurative language has become of increasing interest to applied linguists during recent years. (AL5: 1)
- This has been partly because of a growing awareness that phenomena such as metaphor and figurative idioms are very frequent in everyday situations of language use. (AL5: 2)
- In addition, figurative language is potentially challenging for second language learners and teachers because it is often more difficult to approach systematically in second language classrooms. (AL5: 3)
- Any essay written on a single topic is likely to involve some repetition of lexical items or at least synonymous references to a single referent. (LL1: 1)
- There may even be repetition of entire phrases or propositions. (LL1: 2)
- This essay illustrates well Hoey's (1991) claim that lexical repetition is the principal means of explicitly marking cohesion in a text. (LL1: 15)
- It also illustrates the important communicative function of cohesive markers in general. (LL1: 16)

- Recent reviews of the role of input and interaction in second language (L2) acquisition (Gass, Mackey, & Pica, 1998; Long, 1996; Pica, 1994; Wesche, 1994) suggest that interaction can provide the input and output conditions conducive to L2 development. (LL2: 1)
- Although it is generally recognized that listening plays a significant role in language learning, listening comprehension remains a "young field" that merits greater research attention (Oxford, 1993; Rubin, 1994). (LL5: 1)
- As the proliferation of computers in the language learning classroom continues, it is important for language teachers embracing the use of computer technology to understand the norms of language use during computer-mediated interaction and their potential relationship to second language acquisition (SLA). (MLJ1: 1)
- The use of synchronous computer-mediated communication (CMC) in particular has recently increased in the communicative language classroom through freeware and readily-available Web-based "chat" programs such as AOL Instant Messenger and Yahoo Messenger, among countless others. (MLJ1: 2)
- In general, CMC appears to be a potentially useful tool for language teaching and learning as well as for research into both second language use and acquisition. (MLJ1: 3)
- Nevertheless, it is widely held that communicative interaction among nonnative speakers (NNS-NNS), especially that which promotes negotiated interaction, is especially facilitative for SLA. (MLJ1: 9)
- From an interactionist perspective on SLA, this is considered one of the most beneficial aspects of synchronous CMC—that learners are afforded more processing time while reading and typing messages, though the "feel" of the interaction remains similar to that of face-to-face oral interaction. (MLJ1: 25)
- From this theoretical perspective, negotiated interaction in particular is viewed as beneficial for SLA as learners elicit modified input from one another, are pushed to modify their own linguistic output, and receive important feedback on their target language use, thus potentially focusing their attention on their problematic utterances. (MLJ1: 26)
- Research in first language (L1) has shown that an understanding and a mastery of native language derivational morphology is an effective tool for building vocabulary in L1 (e.g., Freyd & Baron, 1982; Hanson, 1993; Nagey & Anderson, 1984; Tyler & Nagey, 1989; White, Power, & White, 1989), but, with the exception of Schmidt and Meara's (1997) study, little research has been done on knowledge of derivational morphology in second language (L2) learning and on the effects of such knowledge on L2 vocabulary building. (MLJ2: 2)
- The amount of L2 research involving lexical acquisition has increased substantially over the past 2 decades. (MLJ5: 5)
- Given that researchers and authors of instructional materials have advocated semantically oriented tasks for vocabulary learning (e.g., Coomber, Ramstad, & Sheets, 1986; Johnson & Pearson, 1978, 1984) and given that instructors may opt to include these tasks for L2 vocabulary instruction, it is important that research focus on the effects of these tasks. (MLJ5: 29)
- Semantic universals have received considerable attention (e.g., Huebner, 1983; Parrish, 1987; Thomas, 1989), but even more attention has been directed at discourse

universals, particularly at the two that are the focus of the present investigation: (a) the tendency to mark the distinction between topic and comment NP referents (e.g., Huebner; Young); and (b) the tendency to mark the distinction between new, continuous, and reintroduced NP referents (e.g., Chaudron & Parker, 1990; Givón, 1984). (SSLA1: 2)

- Two interrelated problems that are of crucial importance in SLA theory and research are determining which types of linguistic input can be utilized in language acquisition, and identifying the ways in which participation in communicative interaction can promote language development. (SSLA3: 1)
- For language learners, conversations with more competent speakers can be a rich source of exposure to the target language (TL). (SSLA4: 1)
- Some researchers have argued that learners benefit from such input only if they attend to the language forms they hear (Corder, 1967; Gass, 1997; Long, 1996; Schmidt, 1993). (SSLA4: 2)
- Arguably, noticing is fundamental to the potential that feedback can have for the learner. (SSLA4: 21)
- The importance of timing patterns in learners' speech has been highlighted in many studies and texts (e.g., Anderson-Hsieh, Johnson, & Koehler, 1992; Anderson-Hsieh, Riney, & Koehler, 1994; Chen, 1982; Dickerson, 1989; Flege, Munro, & MacKay, 1995; Gilbert, 1993; McNerney & Mendelsohn, 1992; Pennington, 1989; Solé, 1997; Tajima, Port, & Dalby, 1997; Wong, 1987). (SSLA5: 7)

Move 1- Step 2 / Making Topic Generalisations

- Unfortunately, the very complexity and the individualized nature of the problem make it difficult to examine SLA success. (AL1: 10)
- There is a need to use tools that can make complex inferences based on a diverse and interactive set of data. (AL1: 11)
- These two observations would appear to be entirely consistent with Cummins's hypothesis of *autonomous and interacting* domains of language proficiency; however, they suggest that it would benefit from a conceptual elaboration, the subject of the next section (for background to the study, including a more extensive survey of the sociolinguistic context, see Francis 1997, 1998).[1] (AL2: 12)
- At the present stage of the research on the role that indigenous languages play in school the emphasis must continue to be on reliable descriptions of the various aspects of bilingual proficiency. (AL2: 19)
- Presently, our goal remains that of describing the interactions among the different factors that determine the direction and rate of development of the languages in question. (AL2: 20)
- CSs are defined in different ways by different researchers. (AL3: 3)
- As different CSs have emerged from the data a challenging task for researchers has been to find useful ways of classifying them. (AL3: 8)
- The result has been the appearance of a number of different CS taxonomies, most of which are based on empirical research. (AL3: 9)
- There are a variety of ways in which researchers have gone about the task of identifying the psychological processes underlying CS use (see Littlemore 1998). (AL3: 13)

- An alternative approach is to concentrate on individual differences between CS users, and to look for areas where these individual differences relate to differences in their patterns of CS use. (AL3: 18)
- As well as their L1, it is highly likely that an individual's *psychological* characteristics will lead them to adopt different types of CSs. (AL3: 20)
- If it could be demonstrated that individuals with certain psychological characteristics tend to adopt certain types of CSs, then this would give some insight into the psychological processes that lie behind those CSs. (AL3: 21)
- A further advantage of this approach to the study of CSs is that it might also help researchers to determine why different types of learners tend to use particular communication strategies. (AL3: 22)
- It might also help explain why some learners are more flexible than others in their use of CSs. (AL3: 23)
- This approach follows current research trends in the area, in that it investigates the relationship between CSs and other types of cognitive functioning. (AL3: 24)
- One key difference between low-rising and the other three consensus contours is its lack of a pitch rise at the stressed syllable (a High pitch accent, H*). (AL4: 3)
- Instead, the accented syllable is marked by a Low pitch accent (L*) which falls or stays fairly level in pitch. (AL4: 4)
- This low pitch is followed by a moderate rise in pitch, as in the sentence 'I don't want to talk to ANyone' (with the accented syllable in capital letters) in Figure 1. (AL4: 5)
- Although the importance of the low-rise has been claimed for both British and American English, conclusions about its role in the intonation system have often seemed contradictory. (AL4: 6)
- Thus, the low-rise was considered to be a single contour on both sides of the Atlantic, although this led to descriptive conflicts. (AL4: 16)
- The first conflict arises over whether the low-rise is a 'question intonation'. (AL4: 17)
- This has often been thought to be a major difference between standard British and American English. (AL4: 21)
- An overlay of the two low-rising contours with the question 'Are you going?' is shown in Figure 2. (AL4: 25)
- The L* pitch accent is on *go* in both contours. (AL4: 26)
- The contour which rises to high (L* H H%) is associated with yes/no questions, while the contour rising to mid (L* L H%) is similar to Bolinger's (1986) C-accent and Ladd's (1980) low-rise. (AL4: 27)
- This is because figurative meaning typically arises from the role of phrases in discourse (rather than from the sum of their grammatical and lexical parts). (AL5: 4)
- It is hoped that a combination of contrastive and cognitive linguistic approaches may provide insight into the underlying meaning of figurative language and encourage a more systematic pedagogic treatment. (AL5: 5)
- Developments in cognitive linguistics have led to improvements in descriptions of figurative language and facilitated our understanding of the interrelationships of many figurative expressions (i.e. metaphoric and metonymic ones). (AL5: 6)

- Growing understanding of the metaphorical systems of languages other than English offers the potential for comparative studies and raises the possibility of drawing on L1 conceptual knowledge in the interpretation of L2 figurative language. (AL5: 10)
- In the following essay written by a beginning-level ESL student for placement purposes in an intensive English program, a number of key terms are repeated. (LL1: 3)
- The student's native language was Spanish, and the task she was asked to accomplish was a description of her favorite teacher. (LL1: 4)

> [1] my favorite teacher is of history is a grand person, is very inteligent, and comprensive, [2] he's name is Roberto [3] and he live in Colombia, [4] he is married with a Canadian woman, [5] my teacher is a wonderful person Because is very inteligent. [6] he help me when I need and I don't understand, [7] he explain and no problem, [8] mi teacher is a good profesional in your matory, [9] I have admiration for people inteligent, comprensive and help people. [10] is Beautiful see comprensive and help people.
>
> (Participant 78DS, [ ] indicates T-units)

- The subject of the essay, the student's teacher, is referred to by either the noun *teacher* or the pronoun *he* in the first eight T-units. (LL1: 5)
- The fact that the teacher is not referred to in the last two T-units indicates a division of the essay into two segments: a description of a specific individual and then a more general conclusion about people in general. (LL1: 6)
- Likewise, in T-units [2] through [4], the lack of repeated lexical items, with the exception of a reference to the teacher, indicates that the function of these T-units is the expansion of the characterization through the addition of new information. (LL1: 7)
- In terms of semantic content, the central proposition of this text states that the teacher is her favorite because he is *grand, inteligent,* and *comprensive.* (LL1: 8)
- This is stated in the initial T-unit, but what really signals its centrality is that these lexical items are repeated again in the form of the synonym *wonderful* and the exact repetitions of *inteligent* and *comprensive* in T-units [5] and [9]. (LL1: 9)
- These instances of multiple words being repeated between the T-units serve both to emphasize the importance of the attributes and to mark these sentences as referring to the central proposition. (LL1: 10)
- These are not the only instances of lexical repetition in the text, but they are sufficient to illustrate how the effect of repetition in an essay of this nature is both structural and semantic. (LL1: 11)
- At the structural level, lexical repetition creates the sense that the ideas presented in different sentences are related—or not related—to each other, thereby building levels of cohesion within the text. (LL1: 12)
- At the semantic level, the repetition of key words makes clear who the essay is about and what the most important attributes of that person are. (LL1: 13)
- At the same time, the lack of repetition in other T-units indicates the writer's ability to go beyond a skeleton response and expand upon her central ideas. (LL1: 14)
- Given this rhetorical significance, it seems logical to investigate whether cohesive markers and lexical repetition in particular are problematic for developing writers to use, native or nonnative. (LL1: 17)
- In a sense, the shift they propose from focusing on the surface device to exploring the underlying structure that invokes the device is congruent with the paradigm change

in applied linguistics in general from focus on learner errors to focus on language acquisition and development. (LL1: 21)

- One approach to understanding the acquisition of verb morphology in SLA has been based on the hypothesis that the emergence and development of grammatical markers of tense and aspect are influenced by semantic categories. (LL3: 1)
- Furthermore, the processes involved in reading are not only interactive, but also compensatory. (LL4: 7)
- It is assumed that the degree to which successful compensation may be achieved depends upon previous knowledge and reading skill. (LL4: 9)
- For example, there may be some occasions when the level of reading skill becomes more relevant to text processing and comprehension (e.g., when knowledge of the topic is limited). (LL4: 10)
- On other occasions the level of topic knowledge may be more significant (e.g., when reading skill is limited). (LL4: 11)
- Likewise, for L2 incidental vocabulary development through reading, the impact of various reader-based factors may fluctuate under differing reading conditions. (LL4: 12)
- These factors have been known to influence text processing, comprehension, and lexical inferencing during reading. (LL4: 15)
- Thus, they should also be robust determinants of vocabulary development through reading. (LL4: 16)
- A study of the nature of the role of these factors in L2 incidental vocabulary acquisition may not only contribute to interactive theories of reading and further refinement of models of lexical development through reading, but also help to explain the variability found in incidental learning outcomes in instructed L2 learning environments. (LL4: 17)
- Furthermore, because of the "logging" capabilities of most CMC programs, we may capture and readily access this interaction for both research and pedagogical purposes. (MLJ1: 6)
- Indeed, the computer as a data collection instrument seems to be less intrusive in many ways than traditional procedures for recording face-to-face student interaction. (MLJ1: 7)
- Though the use of well-crafted communicative activities, which promote learner-learner interaction, is generally considered sound pedagogical practice, the theoretical and empirical support for the efficacy of such activities for facilitating SLA is less than conclusive. (MLJ1: 8)
- Perhaps seduced by the increasing presence and popularity of computers in second language classrooms, we may be tempted to assume that computer-mediated (negotiated) interaction among learners occurs to the same degree and in the same fashion as that found in a face-to-face environment. (MLJ1: 11)
- Research has found CMC discourse to exhibit features of both oral and written language. (MLJ1: 13)
- Among those characteristics similar to spoken language is the real-time nature of the communication, the ability to provide stress to words and phrases (via italics or bolding), the use of the first person, and the clear informality found in CMC discourse. (MLJ1: 14)

- Characteristics of CMC resembling writing include the lack of intonation, the permanent record of the discourse, the lexical density, and the use of punctuation and textual formatting in messages. (MLJ1: 15)
- Computer-mediated communication possesses many unique characteristics as well. (MLJ1: 16)
- For example, learners, when communicating in a CMC environment, make use of simplified registers, including shorter sentences, abbreviations, simplified syntax, the acceptance of surface errors, and the use of symbols and emoticons to express emotion. (MLJ1: 17)
- Moreover, turn-taking includes many more overlaps than in face-to-face exchanges. (MLJ1: 19)
- This overlapping is largely due to a short time delay (even in synchronous CMC) between the actual initiation of the message and its receipt by the addressee. (MLJ1: 20)
- These overlaps are also due in part to the fact that only one message at a time may traverse the CMC interface. (MLJ1: 21)
- Indeed, synchronous CMC may provide an ideal medium for students to benefit from interaction primarily because the written nature of computer-based discussions allows a greater opportunity to attend to and reflect upon the form and content of the message, while retaining the conversational feel and flow as well as the interactional nature of verbal discussions. (MLJ1: 23)
- There is now substantial evidence that lends support to an explicit focus on form in language program design. (MLJ3: 1)
- However, as the studies reviewed by Norris and Ortega demonstrated, explicit instruction may be operationalized in many different ways. (MLJ3: 4)
- Like other theories of motivation (Dörnyei, 2001; Schmidt, Boraie, & Kassabgy, 1996), Flow Theory involves the complex interplay of a number of variables. (MLJ4: 4)
- Flow researchers have found that the following conditions occur during flow experiences: (a) a perceived balance of skills and challenge, (b) opportunities for intense concentration, (c) clear task goals, (d) feedback that one is succeeding at the task, (e) a sense of control, (f) a lack of self-consciousness, and (g) the perception that time passes more quickly.[1] (MLJ4: 5)
- Among the foundations of cognitive research on second language (L2) acquisition are an information processing perspective (input > developing system > output) and the construct of limited processing resources. (MLJ5: 1)
- Research on L2 input processing (IP) has utilized these foundations to view L2 acquisition as a systematic process in which limited processing resources are allocated over time to meet the demands of multiple sub-processes, such as the processing of input, acquisition of grammar, and processing of output. (MLJ5: 2)
- This research has dealt with matters such as lexical requirements for different levels of comprehension, receptive versus productive vocabulary knowledge, available activities for vocabulary instruction, incidental versus direct methods of vocabulary learning, vocabulary learning strategies, testing vocabulary knowledge (see Nation, 2001), and the nature of the bilingual lexicon (e.g., Schreuder & Weltens, 1993). (MLJ5: 6)

- To learn a new L2 word successfully, one must be able to attend to and process that word as input. (MLJ5: 9)
- More specifically, the learner must be able to complete at least three subprocesses, regardless of the extent to which he or she learns a target L2 word incidentally or directly: (a) encode the form of the new word in memory (form), (b) activate an appropriate semantic representation for the meaning of the word (meaning), and (c) map the appropriate form onto the appropriate mental representation for the word (mapping). (MLJ5: 10)
- Unlike first language (L1) lexical acquisition, in the L2, learners frequently (but not always) have preexisting semantic representations for target L2 words, given their experiences in L1, and do not encode new semantic representations for these words "from scratch." (MLJ5: 11)
- The appropriate semantic space of a given word can vary greatly between the L1 and the L2, and few (if any) exact translations may exist. (MLJ5: 12)
- However, much of the semantic information appropriate for a given word in the L1 and the L2 may overlap and be transferred. (MLJ5: 13)
- For example, an English speaker learning L2 Spanish may infer correctly that the word *manzana* 'apple' can refer to a solid, edible fruit that grows on trees, even though the learner may not know that this word also can refer to a street "block" in Spanish. (MLJ5: 14)
- Semantic elaboration refers to a situation in which one focuses extensively on the semantic properties of a word. (MLJ5: 16)
- An example of semantic elaboration is a situation in which a learner reflects on the extent to which a word (e.g., *snail)* represents an instance of a given category (e.g., animal, insect, or food) as compared to when the learner does not do so. (MLJ5: 17)
- *Structural elaboration* refers to a situation in which one focuses on the structural or formal properties of a word. (MLJ5: 18)
- An example of structural elaboration is a situation in which a learner counts the number of letters or syllables in a word (e.g., *snail)* or attempts to think of other words that rhyme with the word (e.g., *pale* or *rail).* (MLJ5: 19)
- Semantically oriented processing related to target word meanings is central to L1 lexical acquisition because it helps learners build up initial semantic networks for each target L1 word. (MLJ5: 20)
- This type of processing can serve a somewhat different function in L2 lexical acquisition, however, because semantic networks for target L2 words often already exist, at least to some extent. (MLJ5: 21)
- Successful initial acquisition of L2 words often may depend more on allocating processing resources toward the form and mapping components of word learning, that is, toward encoding new L2 word forms and mapping those forms to preexisting semantic representations, than on the meaning component. (MLJ5: 22)
- From this perspective, one could posit that semantic elaboration related to the meaning of target L2 words during word-level IP is of less benefit in L2 than in L1 lexical acquisition. (MLJ5: 23)
- One could further posit that increasing semantically oriented processing results in less effective initial-stage L2 lexical acquisition because the semantically oriented processing exhausts resources that could otherwise be used for word-form encoding

and mapping, which are components of word learning that are central to successful L2 lexical acquisition. (MLJ5: 24)

- Although assigning ratings of pleasantness to words may be useful from an experimental standpoint, it is not typical of the semantically oriented vocabulary instructional techniques that one might employ in a classroom. (MLJ5: 27)
- Past research on L2 article acquisition, like so many other areas of L2 acquisition, has shown that learners seem to have an innate—and therefore universal—sensitivity to certain semantic, syntactic, and discourse distinctions and that they tend to mark such distinctions even from the early stages of language acquisition (see Young, 1995, p. 142). (SSLA1: 1)
- In particular, both areas of study refer to universal processes to explain the data and results that are obtained from individual analyses. (SSLA2: 2)
- These universal processes explain speakers' tendencies toward certain forms, the early loss of some structures, and the difficulty of acquiring others. (SSLA2: 3)
- Furthermore, sociolinguists and SLA researchers both study language change in terms of movement toward or away from a particular target form. (SSLA2: 4)
- It has even been predicted that a mirror-image relationship exists between the process of language acquisition and language loss. (SSLA2: 5)
- Copula contrast in the [copula + adjective] context has been found to be undergoing a process of language change in both bilingual and monolingual populations. (SSLA2: 7)
- On one hand, researchers influenced by Chomsky's (1965) claim that humans are endowed with a biologically determined capacity to learn language have used logical models of language learnability to argue that negative evidence, defined as information regarding the impossibility of certain linguistic structures in the language being acquired, is irrelevant to first language (L1) acquisition. (SSLA3: 2)
- Instead, researchers espousing this view have maintained that innate linguistic constraints allow language development to progress solely on the basis of exposure to positive evidence, or exemplars of possible utterances (present in all grammatical speech). (SSLA3: 3)
- This argument has been extended from L1 to second language (L2) research by SLA researchers investigating the nature of the linguistic knowledge learners have at the outset of SLA, and whether this knowledge derives from a set of innate linguistic constraints referred to as Universal Grammar (UG). (SSLA3: 4)
- On the other hand, SLA researchers studying the effects of the linguistic environment on learners' cognitive processes have conducted both observational and experimental studies of conversational interaction between nonnative speakers (NNSs) and either native speakers (NSs) or other NNSs to explore the ways in which such interaction may contribute to SLA. (SSLA3: 5)
- Thus, these two lines of investigation—that is, research on usable input types and studies of interaction—converge around the issue of identifying the effects of feedback and negative evidence on linguistic development. (SSLA3: 8)
- In particular, these two research domains have come together in the study of recasts, a type of feedback that has been documented in NS-NS and NS-NNS (as well as NNS-NNS) interaction. (SSLA3: 9)

- In (1) a native speaker (NS) and a nonnative speaker (NNS) carry out a story task together.[1] (SSLA4: 6)
- The NNS apparently has difficulty in framing her question (first line), and her interlocutor's initial response seems to be incongruent with what she had intended to say (second and third lines). (SSLA4: 7)
- This pushes the learner to try again; this time she is able to produce the key lexical item "*guide*," and the NS provides her with a targetlike version, or recast, of her question (fourth line). (SSLA4: 8)
- The recast functions as a confirmation check of her meaning. (SSLA4: 9)
- Recasts, in which the learner's nontargetlike utterance (e.g., "*The girl is this um ya be be a guide?*") is subsequently reformulated by the interlocutor as a TL version (e.g., "*Is she a guide?*"), exemplify this process: Recasts are congruent with the learner's own production and juxtapose the incorrect with the correct. (SSLA4: 11)
- In (1) it is unclear whether the learner notices the NS's reformulation of her own question or simply responds to the reiteration of her meaning (line 5). (SSLA4: 14)
- Evidence that learners notice interactional modifications, such as recasts, would provide support for the connection between input, the learner's attentional resources, and intake (Carroll, 1999; Corder, 1967), and it may further our understanding of the processes of SLA.[2] (SSLA4: 24)
- In part, this lack of research is due to the difficulty of operationalizing noticing for the context of interaction, which engages both the aural and oral skills of the learner. (SSLA4: 26)
- These languages exemplify two very different patterns of word-to-word timing and thus provide an interesting test case for the question as to what happens to phonetic timing in a second language (L2). (SSLA5: 3)
- Previous phonetic research (to be subsequently discussed) has shown that NSs of English tend to produce consonants at word boundaries with a great deal of articulatory overlap and that (as a consequence) they seldom if ever produce an audible release burst between the two consonant closures. (SSLA5: 4)
- Russian NSs, on the other hand, generally produce sequences with little or no overlap and create an audible release burst for final consonants much more often, even in clusters. (SSLA5: 5)
- Because of the acoustic and perceptual effects of these different articulatory patterns, the speech of a learner who employs a nonnative pattern may suffer in both naturalness and intelligibility. (SSLA5: 6)
- In the case of Russian and English, nonnative timing patterns at word boundaries may result in the inappropriate presence or absence of final release bursts. (SSLA5: 11)
- Because the presence of a release burst enhances the perceptibility of stop consonant contrasts (Liberman, Cooper, Shankweiler, & Studdert-Kennedy, 1967; Stevens & Blumstein, 1978), an English NS learning Russian who failed to produce the audible bursts typical of Russian might sound not only unnatural but also unintelligible to a Russian NS. (SSLA5: 12)
- On the other hand, a Russian speaker who carried over to her L2 English speech the articulatory habit of releasing final consonants might correctly signal contrasts in

consonantal place of articulation but at the cost of disruption in prosody. (SSLA5: 13)

- The English pattern of extensive consonant overlap at word boundaries has further acoustic consequences as well. (SSLA5: 15)
- Not only does articulatory overlap prevent audible release bursts that would more clearly cue contrasts among final consonants, but it also may cause final contrasts to be lost completely. (SSLA5: 16)
- For example, the phrase *in part* may be heard as *im part*, *this year* as *thish year*, *that boy* as *tha' boy*, and *last year* as *las' cheer*. (SSLA5: 18)
- In many if not all cases, these connected speech alternations may be caused by the English pattern of producing large amounts of overlap between consonants at word boundaries. (SSLA5: 19)
- In terms of comprehension, many lexical contrasts that the learner might expect, on the basis of dictionary pronunciations, to be realized are not. (SSLA5: 23)
- In terms of production, the learner who does not create the cross-word assimilations so pervasive in English speech will sound overly careful and stilted. (SSLA5: 24)
- Nonnative speech in which these linking phenomena are absent will fail to convey the connections between words that the native prosody signals. (SSLA5: 26)
- Conversely, problems would occur for NSs of English learning other languages if the same assimilations and deletions that occur in native speech surfaced inappropriately in their L2 productions. (SSLA5: 27)
- If transfer of articulatory timing occurs in English-Russian interlanguage, as predicted by these studies, we would expect that NSs of English would speak Russian with considerable overlap at word boundaries, which would result in pervasive assimilations and deletions of final consonants. (SSLA5: 34)
- Similarly, NSs of Russian speaking English would produce their English consonant sequences in a manner consistent with their L1 patterns. (SSLA5: 35)
- Universal preferences for ease of either articulation or perception might make a timing pattern in which each word is separately articulated particularly well suited for learners. (SSLA5: 40)
- Because lack of overlap at word boundaries makes word-final contrasts easier to hear, the preference to keep words separate is consistent with Weinberger's (1994a) recoverability principle—that is, the general tendency of NNSs to preserve contrastive information. (SSLA5: 41)
- That NNSs prefer epenthesis to deletion in difficult clusters—a pattern noted by Weinberger—may be a direct consequence of a pattern of articulation that prefers a lag between closures instead of an overlap. (SSLA5: 42)
- Other studies of the transfer of cross-word assimilations from L1 to L2 have not found a word integrity effect, however. (SSLA5: 43)
- If function words cliticize onto content words, forming a larger phonological word in terms of prosodic structure (Nespor & Vogel, 1986), these assimilations might be reanalyzed as prosodically word internal. (SSLA5: 46)
- Because word-final obstruents tend to have clear release bursts in native Russian articulation, theories of both transfer and word integrity predict that NSs of Russian will speak English with little overlap of consonants at word boundaries. (SSLA5: 49)

- The two theories make opposite predictions for NSs of English speaking Russian, however. (SSLA5: 50)
- Transfer of the English pattern would result in significant overlap of consonants; a preference for word integrity predicts no overlap. (SSLA5: 51)

Move 1- Step 3 / Reviewing Items of Previous Research

- For example, Ehrman (1996), Chapelle and Green (1992), and Skehan (1991) note the many and individualized aspects of successful second language acquisition. (AL1: 2)
- Brown suggests an SLA theory which includes 'as many relevant factors as possible' (1994: 278), and Crookes and Schmidt suggest that a broad taxonomy be developed to identify those factors relevant to SL motivation, one that takes into account the interrelationships between factors (1991: 497-8). (AL1: 3)
- As early as 1976, Yorio suggested a taxonomy of learner background variables to be considered when examining individual differences in second language acquisition. (AL1: 4)
- Carrell *et al.* review recent research indicating that success in second language learning involves individual learner differences related to cognitive, affective, motivational, personality, demographic, and learning environment variables. (AL1: 5)
- 'Relationships between and among these variables may not be simple, but complex and interacting', they state (1996: 95). (AL1: 6)
- Wen and Johnson claim that one reason for conflicting research findings to date has been the focus on isolating language learning variables. (AL1: 7)
- They advocate investigation of 'the interrelationships of as many learner factors as possible and their relationship to achievement', stating that 'In practice, the variables affecting language learning outcomes function together as a system' (1997: 28). (AL1: 8)
- These researchers recognize that each individual learner will have a unique mix, or constellation, of variables associated with his or her success in a second language. (AL1: 9)
- In 1989, Spolsky proposed the use of an expert system as a means to test his general model of SLA: 'Expert systems, as developed in Artificial Intelligence research, seem to be consistent with the needs of the preference model I have been proposing' (p. 222). (AL1: 12)
- Of particular interest was the degree to which comprehension skills and discourse competencies, learned in school through the medium of Spanish, would be available to the students when presented with similar tasks in Náhuatl. (AL2: 8)
- The vernacular is the language of preference at recess and after school, but plays virtually no role in literacy instruction *per se*. (AL2: 9)
- In short, the purpose of the previous study was to examine the 'linguistic interdependence' hypothesis, proposed by Cummins (1979, 1991), in a situation of bilingual development where basically only one language is the vehicle of academic discourse. (AL2: 10)
- Two general observations suggested the necessity of refining the notion of linguistic interdependence: (1) parallel tendencies in both languages on measures of academic

discourse, revealed in this particular context, suggest that a kind of interdependence, and the related construct of Cognitive Academic Language Proficiency (CALP) are *universally applicable*; (2) a 'progressively attenuated development' of the indigenous language reflects both interdependence and a 'language-specific' separate evolution. (AL2: 11)

- Some (for example Faerch and Kasper 1983) restrict their definition of CSs to cases in which the speaker attempts to overcome linguistic difficulty, whereas other researchers (for example Tarone and Yule 1989) consider them to include all attempts at meaning-negotiation, regardless of whether or not there is linguistic difficulty. (AL3: 4)
- These CSs are referred to by some researchers (for example, Poulisse 1990) as *compensatory strategies.* (AL3: 6)
- Research into the use of CSs in second language learning goes back at least 20 years (see, for example, Tarone 1978). (AL3: 7)
- These taxonomies contain CSs such as transfer, paraphrase, word coinage and generalization, amongst others, all of which are attempts to communicate an idea when the appropriate target-language item is unknown (see Tarone 1978; Faerch and Kasper 1983; Paribakht 1985; Varadi 1980 for more details). (AL3: 10)
- A recent trend in this area is for researchers to base their classifications on what is currently known about psychological processing, rather than simply listing surface linguistic forms (Dörnyei and Scott 1997). (AL3: 11)
- Reasons for this include a desire to make CS research fit in with other theories of linguistic processing (Bialystok 1990), an interest in the mental processes that lie behind CS usage, rather than the products (Kumaravadivelu 1988), a quest for generalizability of the taxonomies (Poulisse 1990), and a desire to treat CSs as the outcome of normal cognitive activity (Kellerman and Bialystok 1997). (AL3: 12)
- For example, Kumaravadivelu (1988) takes lexical simplification and divides it into the three psychological processes of overgeneralization, creative transfer, and cultural relativity. (AL3: 14)
- Kellerman and Bialystok (1997) offer a taxonomy based on the psychological processes of *analysis* and *control* (Bialystok 1990).[1] (AL3: 15)
- Khanji (1996) adopts a Vygotskyan perspective which takes account of the social origins of mental functions. (AL3: 16)
- Poulisse (1990) uses Levelt's (1989) psycholinguistic model of speech production to draw up a taxonomy, referred to as the Nijmegen Taxonomy, consisting of conceptual and linguistic CSs (more details of this study will be given below). (AL3: 17)
- For example, Chen (1990) showed that a language learner's L1 influences the types of CSs that they use. (AL3: 19)
- British researchers have championed the contour, saying it is more typical of British than American English (O'Connor and Arnold 1963; Cruttenden 1997). (AL4: 7)
- Bolinger (1961, 1986) called the low-rise the C-contour (or C-profile or C-accent).[1] (AL4: 9)
- He said its primary function is to play down, or minimize, a message. (AL4: 10)

- It has also been claimed to be similar in meaning to the falling contour (Gunter 1974) and falling-rising contour (Bing 1985) and has been associated with yes/no questions in American English (Pierrehumbert and Hirschberg 1990). (AL4: 11)
- Pierrehumbert (personal communication) attributes much of the confusion about the low-rise to Bolinger's work and influence. (AL4: 13)
- By asserting only a single low-rising accent, Bolinger conflated several patterns into one category. (AL4: 14)
- This conflation has also been claimed for British English, where different gradations of rise have not been distinguished although gradations of fall have (Bing 1985). (AL4: 15)
- Although the high-rise is consistently interpreted this way (Gunter 1974), the low-rise is not. (AL4: 18)
- Gårding and Abramson (1965, as cited in Bing 1985) say that 'in the absence of other cues such as subject-aux inversion, and when the utterances consist of numbers and nonsense syllables, subjects consistently identify the B-contour [high-rising] as a question contour, but not the C-contour [low-rising]' (Bing 1985: 95). (AL4: 19)
- However, traditional British accounts on intonation have described normal question intonation as being 'low-rising' (O'Connor and Arnold 1963). (AL4: 20)
- This belief is asserted by Cruttenden (1997), who says that 'the use of low-rise on yes/no interrogatives may indeed sound "patronising", or "ingratiating" to Americans, who are more likely to use high-rise . . . high-rise seems to be the more common pattern in many types of American English and also in some varieties of British English' (Cruttenden 1997: 98). (AL4: 22)
- Yet in American English, Pierrehumbert and Hirschberg (1990) claim the low-rise is the standard yes/no question contour. (AL4: 23)
- English expressions such as *to spill the beans*, or *to let the cat out of the bag* have been accounted for with reference to an underlying CONDUIT metaphor in which THE MIND IS A CONTAINER and IDEAS ARE ENTITIES (cf. Reddy 1979, Lakoff and Johnson 1980, Lakoff 1987). (AL5: 7)
- A number of researchers have argued that improvements in figurative language description have the potential to carry over to the second language classroom (e.g. Kövecses and Szabó 1996; Boers and Demecheleer 1998; Cameron and Low 1999a, 1999b; Boers 2000a, 2000b; Charteris-Black 2000a, 2001a). (AL5: 8)
- There has also been some empirical research into the transfer processes involved in the learning of L2 figurative language and idioms (Kellerman 1977, 1978, 1986; Jordens 1977). (AL5: 9)
- As Danesi comments:

  > an important question for future research would thus seem to be: to what extent do the conceptual domains of the native and target cultures overlap and contrast? . . . what kinds of conceptual interferences come from the student's native conceptual system (*interconceptual interference*) and how much conceptual interference is generated by the target language itself (*intraconceptual interference*)? (Danesi 1994: 461). (AL5: 11)

- However, results from the majority of studies that have investigated differences in the use of cohesive devices among native (e.g., McCutchen, 1986; Witte and Faigley, 1981) and nonnative writers (e.g., Connor, 1984; Indrasuta, 1988; Johnson, 1992;

Reynolds, 1995; Scarcella, 1984) have proved either inconclusive or contradictory (Reynolds, 1996). (LL1: 18)

- This has led Carrell (1982) and others (Enkvist, 1990; Tyler, 1995) to argue in effect that because cohesion does not need to be explicitly marked for a text to be coherent, it is difficult to define what a problem would even be. (LL1: 19)
- They counter that cohesive devices such as lexical repetition are primarily an index of the rhetorical structure of a text, an outgrowth of the way in which a writer organizes, connects, and develops a text. (LL1: 20)
- The aspect hypothesis (Andersen & Shirai, 1994; Bardovi-Harlig, 1994, 1999) predicts that interlanguage systems of tense and grammatical aspect will reflect associations made by learners between the verb morphology of the target language and the inherent lexical aspect of the verb. (LL3: 2)
- It has been argued that the cross-linguistic findings from research investigating the aspect hypothesis are sufficiently robust to constitute evidence of language learning universals (Andersen & Shirai, 1996; Shirai & Kurono, 1998). (LL3: 3)
- It has been further suggested that the findings have implications for second language (L2) pedagogy (Bardovi-Harlig, 1995b; Bardovi-Harlig & Reynolds, 1995). (LL3: 4)
- Research investigating the development of other language structures, such as negation and question formation, has found that learners from different first language (L1) backgrounds may pass through similar stages of development, and at the same time, may also exhibit interlanguage behavior within stages resulting from L1 influence (Schumann, 1979; Spada & Lightbown, 1999; Wode, 1981; Zobl, 1980a, 1980b, 1982; see also Larsen-Freeman & Long, 1991; Lightbown & Spada, 1999). (LL3: 5)
- There are studies in which most if not all learners shared the same L1—for example, English-speaking university students in a foreign language learning context studying French (Bardovi-Harlig & Bergström, 1996; Bergström, 1997; Salaberry, 1998) or Spanish (Hasbún, 1995; Salaberry, 1997); and Bulgarian speakers studying English (Slabakova, 1999). (LL3: 8)
- There are also large-scale cross-sectional studies of the L2 acquisition of English among learners with a variety of L1 backgrounds (Bardovi-Harlig, 1998; Bardovi-Harlig & Bergström, 1996; Bardovi-Harlig & Reynolds, 1995). (LL3: 10)
- Although not designed to investigate the interaction between L1influence and lexical aspect, these studies provide data against which a study isolating the L1 variable in the L2 acquisition of English may be compared. (LL3: 11)
- Stanovich (1986) reported that for native language literacy the rich indeed got richer; that is, there was a reciprocal relationship between word recognition skills and sight vocabulary, on the one hand, and reading ability on the other. (LL4: 3)
- Interactive theories of reading view native and L2 reading as complex cognitive processes in which the reader, using previous knowledge, interacts with the information in the text to construct and integrate meaning (e.g., for first language [L1] see Daneman, 1996; Kintsch, 1998; Perfetti, 1985; Rumelhart, 1977; Stanovich, 1980, 1984, 2000; for L2 see Barnett, 1989; Bernhardt, 1991; Carrell, Devine, & Eskey, 1988; Lee, 1997; Swaffar, Arens, & Byrnes, 1991). (LL4: 5)
- During reading there is simultaneous cognitive processing involving pattern recognition, letter identification, lexical access, concept activation, syntactic analysis,

propositional encoding, sentence comprehension, intersentence integration, activation of prior knowledge, and comprehension monitoring (Perfetti, 1985). (LL4: 6)

- When a component of processing is deficient, it can be compensated for, to varying degrees of success, by other components of processing (Stanovich, 1980, 1984). (LL4: 8)
- In fact, it has been suggested that the relationship between some reader-based factors and vocabulary gain through reading may be inconsistent (e.g., Hulstijn, Hollander, & Greidanus, 1996; Meara, 1997). (LL4: 13)
- In order to identify the range of language learning strategies used by more skilled learners at different levels of language proficiency on a wide range of language tasks (including listening), O'Malley, Chamot, Stewener-Manzanares, Küpper, and Russo (1985) investigated the strategies of high school learners of English as a second language (ESL). (LL5: 10)
- Although the methods used (student and teacher interviews and observation) did not produce a high number of different reported listening strategies, the researchers found that the general learning strategies reported by the L2 learners in their study were similar to the learning strategies reported by students engaged in general learning tasks. (LL5: 11)
- They concluded that strategic processing appears to be a generic activity common to all areas of learning. (LL5: 12)
- They proposed a framework of metacognitive, cognitive, and socio-affective strategies grounded in the work of cognitive psychology (Brown & Palinscar, 1982) as a productive framework for classifying L2 learning strategies as well. (LL5: 13)
- A subsequent study of high school students of Spanish and university students of Russian at different levels of language proficiency revealed a similar pattern of strategy use, further validating the framework for classifying L2 strategies (Chamot, O'Malley, Küpper, & Impink-Hernandez, 1987). (LL5: 14)
- In contrast to the findings in the earlier ESL study, the students of Russian and Spanish at higher proficiency levels reported more strategies than their beginning-level peers. (LL5: 15)
- Furthermore, contrary to expectations, the less skilled learners of Spanish and Russian were able to describe the strategies they used to accomplish various L2 tasks. (LL5: 16)
- Research suggests that CMC may elicit more (and more equitable) learner participation (Beauvois, 1992; Kelm, 1992; Kern, 1995; Kim, 1998; Warschauer, 1996), as well as better quality language (Chun, 1994; Kelm, 1992; Kern, 1995; Warschauer, 1996) than that found in face-to-face interaction. (MLJ1: 4)
- Computer-mediated communication may also help create a less stressful environment for second language practice (Chun, 1998). (MLJ1: 5)
- Negotiation episodes have been shown to abound in face-to-face learner interaction (Brock, Crookes, Day, & Long, 1986; Ellis, Tanaka, & Yamazaki, 1994; Gass, 1998; Gass & Varonis, 1985b; Long, 1985; Loschky, 1994; Mackey, 1999; Pica, 1994; Pica, Doughty, & Young, 1986; Pica, Holliday, Lewis, Berducci, & Newman, 1991; Pica, Young, & Doughty, 1987; Sato, 1986), especially when learners are engaged in certain types of tasks (Doughty & Pica, 1986; Duff, 1986; Gass & Varonis, 1985a; Long, 1981, 1983; Nobuyoshi & Ellis, 1993; Pica & Doughty, 1985; Pica, Kanagy, & Falodun, 1993). (MLJ1: 10)

- However, such an assumption requires a leap of faith, to be sure, given the differences reported between face-to-face and CMC discourse and interactional patterns (see Blake, 2000; Fernández-García & Martínez-Arbelaiz, 2002; Pellettieri, 1999; Smith, 2001). (MLJ1: 12)
- Furthermore, openings and closings in discourse have been reported to be largely optional in CMC (Murray, 2000). (MLJ1: 18)
- A heightened degree of learner uptake, large amounts of learner self-correction, and clear lexical and syntactic development have also been observed during computer-mediated negotiated interaction as has a perceived sense of communicative urgency and frequent, yet inconsequential misspellings (Smith, 2001). (MLJ1: 22)
- Beauvois (1992) has described such "chatting" as conversation in slow motion because the CMC interface slows down the communicative interaction while largely retaining its real-time interactive nature. (MLJ1: 24)
- Krashen (1985, 1989) argued that beyond the basic level, the most efficient way for learners to acquire L2 vocabulary naturally is through extensive reading, but the case for explicit vocabulary instruction has been made repeatedly (e.g., Coady, 1997; Crow & Quigley, 1985; Kirsner, Lalor, & Hird, 1993; Oxford & Scarcella, 1994). (MLJ2: 5)
- Such explicit vocabulary instruction does not necessarily involve teaching specific words, but rather, equipping learners with the strategies necessary to expand their vocabulary (Coady, 1997; Eeds & Cockrum, 1985; Ellis, 1994; Kameenui, Dixon, & Carnine, 1987; Oxford & Scarcella, 1994; Sternberg, 1987), as well as allowing them considerable freedom in choosing which strategies to apply and when to apply them (Grace 1998, 2000; Hulstijn, 1993). (MLJ2: 6)
- Sternberg (1987) argued that most vocabulary is learned through context but that the learning-from-context method is at its best for teaching learning-to-learn skills, not for teaching specific vocabulary. (MLJ2: 7)
- This argument echoes what Kameenui et al. (1987) called "derived knowledge," not the knowledge of words, but the knowledge of a strategy for figuring out something about words. (MLJ2: 8)
- In the same vein, Oxford and Scarcella (1994) argued that explicit vocabulary instruction should involve not only learning vocabulary through context, but also learning specific strategies for acquiring words both in and out of class. (MLJ2: 9)
- Coady (1997) concluded from a wealth of research that most vocabulary knowledge comes from meaningful language encounters but that in acquiring vocabulary from such natural input, students benefit from strategies for improving their learning. (MLJ2: 10)
- Ellis (1994) agreed that successful learners use sophisticated metacognitive knowledge in order to choose the learning strategies suitable for facilitating their L2 acquisition. (MLJ2: 11)
- Stoller and Grabe (1993) argued that in both L1 and L2, students must be equipped with independent learning strategies. (MLJ2: 12)
- Among these strategies is an awareness

  > of productive word families, stems, and meaningful affixes. By becoming familiar with only a few stems, prefixes, and suffixes, students will recognize the meaning of many words; one root or affix can often provide a student with a clue to the meaning of dozens of words, (p. 32) (MLJ2: 13)

- Norris and Ortega (2000) summarised findings from experimental and quasi-experimental investigations into the effectiveness of second language (L2) instruction published between 1980 and 1998 and found that focused L2 instruction, in comparison to simple exposure or meaning-driven communication, makes a significant difference. (MLJ3: 2)
- They also reported robust evidence to suggest that treatments involving an explicit focus on the rule-governed nature of L2 structures are more effective than treatments that do not include such a focus. (MLJ3: 3)
- Csikszentmihalyi (1989, 1994, 1996, 1997a, 1997b, 1997c, 1997d) represents flow as an experiential state characterized by intense focus and involvement that leads to improved performance on a task. (MLJ4: 1)
- In his words, flow represents "optimal experience". (MLJ4: 2)
- Csikszentmihalyi and others (e.g., Larson, 1988; McQuillan & Conde, 1996; Shiefele & Csikszentmihalyi, 1995; Webster, Trevino, & Ryan, 1993) have investigated flow during such activities as dancing, child-raising, surgery, reading, Internet surfing, communicating via computer, doing math and art, playing professional football, and rock climbing. (MLJ4: 3)
- Those experiencing flow describe it as being "in the zone", "in the groove" (Jackson & Marsh, 1996), "blinking out" or "having the touch" (Abbott, 2000), and when "everything gelled" (Snyder & Tardy, 2001, Point 29). (MLJ4: 6)
- Flow Theory claims that as a result of the intrinsically rewarding experience associated with flow people push themselves to "higher levels of performance" (Csikszentmihalyi, 1990, p. 74) that encourage them to engage in exploratory behaviors and to perform an activity repeatedly (Trevino & Webster, 1992). (MLJ4: 7)
- Csikszentmihalyi suggests that, in this way, flow contributes to optimal performance and learning. (MLJ4: 8)
- In addition, Jackson and Roberts (1992) suggest that the psychological process of flow is the basis for peak performance in sports, and other researchers say it is the basis for success in endeavors such as writing (Abbott, 2000). (MLJ4: 9)
- Barcroft (2002) presented evidence consistent with this position by demonstrating that a semantic elaboration (+semantic) task in which participants assigned ratings of pleasantness to target L2 words resulted in less productive vocabulary learning than a control condition in which the participants did not have to assign ratings of pleasantness. (MLJ5: 25)
- Recent advances in sociolinguistics and in SLA have shown that the two fields share important assumptions and often reach conclusions that are mutually relevant (Giacalone Ramat, 1995; Preston, 1993, 1996). (SSLA2: 1)
- Sociolinguists have not only selected relevant variables to describe this change, but they have also succeeded in describing stages of change or loss in terms of such variables (Gutiérrez, 1992; Silva-Corvalán, 1994). (SSLA2: 8)
- This research has identified various discourse features typical of NS-NNS interaction, many of which are also well documented in adult-child L1 interaction, and has documented developmental benefits for participation in such interaction (e.g., Doughty, 1994; Gass, Mackey, & Pica, 1998; Long, 1983; Mackey, 1999; Pica,

1992, 1996; Pica, Young, & Doughty, 1987; Polio & Gass, 1998; Sato, 1986). (SSLA3: 6)

- Interaction research has begun to explore the effects of specific interactional features on L2 development and has found that various types of negative feedback seem to promote linguistic development (e.g., Long, Inagaki, & Ortega, 1998; Mackey & Philp, 1998; Muranoi, 2000). (SSLA3: 7)
- Recasts are targetlike reformulations of ungrammatical utterances that maintain the central meaning of the original utterance (Long, 1996; Nelson, 1981), as in the adult response to the child's ungrammatical utterance in (1). (SSLA3: 10)
- In conversation with native speakers, struggles for mutual comprehension typically result in modifications to both the language and the structure of the discourse itself (Hatch, 1978, 1983; Long, 1983, 1985; Long & Sato, 1983; Swain, 1985; Wagner-Gough & Hatch, 1975). (SSLA4: 3)
- These interactional modifications provide learners with implicit feedback on their own IL production (Gass; Long, 1996; Pica, 1994; Swain, 1995). (SSLA4: 4)
- This feedback comes at a time crucial to learning—when there is a mismatch between the input and the learner's IL grammar (Gass & Varonis, 1994; Long & Robinson, 1998). (SSLA4: 5)
- Researchers have argued that it is the perception and resolution of the mismatch between the learner's IL utterance and the TL response that may lead to destabilization and IL restructuring (Ellis, 1991; Faerch & Kasper, 1986; Gass, 1991, 1997; Gass & Varonis, 1994; Long, 1996). (SSLA4: 10)
- If the learner is focused on both form and message, such feedback may present a catalyst for change (Long; Long & Robinson, 1998; Mackey & Philp, 1998; Oliver, 1995; Saxton, 1997). (SSLA4: 12)
- Alternatively, the learner may simply consider a recast to be confirmation of meaning (Chaudron, 1977; Lyster, 1998; Lyster & Ranta, 1997) rather than linguistic correction. (SSLA4: 13)
- Following L1 acquisition research, recasts have generally been described as utterances that "rephrase a child's utterance by changing one or more sentence components (subject, verb, or object) while still referring to its central meanings" (Long, 1996, p. 434; see also Baker & Nelson, 1984; Farrar, 1990, 1992). (SSLA4: 16)
- Although there is variation, particularly concerning the degree to which the recast might expand the initial utterance (Bohannon, Padgett, Nelson, & Mark, 1996) or add emphasis to the changed elements (Chaudron, 1977; see Nicholas, Lightbown, & Spada, 2001, for an overview of recasts in L1 and L2 acquisition research), this definition has been widely adopted in SLA research (e.g., Lyster, 1998; Mackey & Philp, 1998; Oliver, 1995). (SSLA4: 17)
- According to Schmidt's Noticing Hypothesis (Schmidt, 1990, 1993, 1998, 2001), it is only what the learner notices about the input that holds potential for learning because intake—that is, the detection, processing, and storage of input (Gass, 1997; VanPatten, 1990)—is conditional upon noticing. (SSLA4: 22)
- Long (1996), in a reformulation of the Interaction Hypothesis, also points to the importance of noticing (i.e., selective attention): "Negotiation work that triggers *interactional adjustments* by the NS or more competent interlocutor facilitates

acquisition because it connects input, internal learner capacities, particularly selective attention, and output in productive ways" (pp. 451–452, emphasis in original). (SSLA4: 23)

- These publications have emphasized that speaking an L2 with a timing pattern typical of the first language (L1) will in and of itself mark the speech as nonnative and difficult to understand. (SSLA5: 8)
- For example, Tajima et al. demonstrated that nonnative timing patterns in the speech of a Chinese learner of English had a significant, negative effect on intelligibility. (SSLA5: 9)
- When differences in timing were digitally corrected, the learner's speech became significantly more intelligible even though errors in segmental quality remained. (SSLA5: 10)
- Tajima et al. (1997) noted that the presence of unexpected release bursts on final consonants could be interpreted by native English listeners as extra unstressed syllables, rendering individual words less intelligible and creating garden path effects in the interpretation of running speech. (SSLA5: 14)
- In conversational English speech, it is typical for final consonants, particularly coronals, to be perceived as assimilated to the place of articulation of a following word-initial consonant or even completely deleted (e.g., see Catford, 1977; Gimson, 1962; Ladefoged, 1993; Lass, 1984). (SSLA5: 17)
- When two different consonant constrictions are produced at the same time, such as the /t/ and /b/ in *that boy*, the acoustic cues for the word-initial labial consonant may overwhelm those for the word-final coronal, causing the perception that the final consonant has been changed or dropped (Browman & Goldstein, 1990; Byrd, 1992). (SSLA5: 20)
- Similarly, two constrictions made with the same articulator may "blend" into an intermediate constriction location so that /s/ overlapped with /y/ sounds likes /ʃ/ (Zsiga, 1995a, 2000). (SSLA5: 21)
- For NNSs of English, such connected speech assimilations and deletions create a challenge both in understanding and producing conversational English speech (Anderson-Hsieh et al., 1994; Brown, 1977; Hieke, 1987; Weinberger, 1994b). (SSLA5: 22)
- Furthermore, phenomena such as assimilations at word boundaries serve to link words together into hierarchical prosodic groupings, which NSs rely on to convey syntactic and discourse relationships (e.g., see Kaisse, 1985; Nespor & Vogel, 1986). (SSLA5: 25)
- Zsiga (1995b) noted that American English speakers may pronounce the Russian name *Boris Yeltsin* the same way they pronounce *this year*—with a word-final /s/ that sounds more like /ʃ/. (SSLA5: 28)
- In this case, however, the Russian name was embedded in an English sentence. (SSLA5: 29)
- The studies on L2 articulatory timing previously noted (e.g., Anderson-Hsieh et al., 1992; Tajima et al., 1997) have demonstrated the presence of L1 timing patterns in L2 speech, confirming that phonetic timing may transfer from L1 to L2 in the same way that phonological patterns are hypothesized to do (Archibald, 1993; Flege, 1992; Hancin-Bhatt & Bhatt, 1997; Lado, 1957). (SSLA5: 31)

- Other studies (Altenberg & Vago, 1983; Hammarberg, 1990; James, 1988; Rubach, 1984; Weinberger, 1994a) have argued that, when phonological transfer occurs, the postlexical processes of the L1, rather than the lexical alternations, cause the most interference. (SSLA5: 32)
- Following up on these findings, Cebrian (2000) suggested that it is "the difficulty in changing the fossilized articulatory timing habits" in the learners' speech that makes transfer of postlexical processes so common (p. 7); see also Solé (1997). (SSLA5: 33)
- Cebrian (2000), however, found an asymmetry between transfer of timing patterns within words and across word boundaries. (SSLA5: 36)
- In his study, NSs of Catalan were significantly more likely to transfer to their English speech the pattern of coordination between oral and glottal gestures that gives rise to word-final devoicing than they were to transfer the pattern of coordination that gives rise to cross-word voicing assimilation.[1] (SSLA5: 37)
- Cebrian attributed this asymmetry to a "word integrity effect" in interlanguage that "treats every word as a separate unit and prevents the articulatory synchronization of sounds belonging to different words" (p. 19). (SSLA5: 38)
- As neither the L1 nor the L2 exhibits a word integrity effect, this effect can be seen as an example of the emergence of unmarked linguistic structure in interlanguage (Broselow, 1987; Broselow, Chen, & Wang, 1998; Eckman, 1977, 1981, 1987; Epstein, Flynn, & Martohardjono, 1996). (SSLA5: 39)
- Altenberg and Vago (1983), Rubach (1984), and Solé (1997) all found L1 rules of voicing assimilation applying across word boundaries in learners' L2 English. (SSLA5: 44)
- Cebrian (2000, p. 20) suggested that these all involved the boundary between function words and content words (as in *this girl* pronounced as *thi*[z] *girl*). (SSLA5: 45)
- Kim and Zsiga (2002), however, found that Korean learners of English often applied the Korean rule of lenis stop voicing (a process that Jun, 1995, argued to be the result of articulatory reduction and overlap) in their English speech even at boundaries between two content words. (SSLA5: 47)

Move 2- Step 1A / Counter-claiming

- These paradoxical claims concerning the low-rise can be reconciled by recognizing that there are two low-rising contours in English, differing in tonal composition.[2] (AL4: 12)
- The contradictions can be reconciled by recognizing two distinct low-rising contours, differing in the length of the final rise. (AL4: 24)

Move 2- Step 1B / Indicating a Gap

- Many researchers and theoreticians recognize the need to examine a wide variety of SLA (second language acquisition) variables and to recognize the influence of learning and acquisition environments, individual characteristics, and language exposure or input. (AL1: 1)
- Information regarding the language learning backgrounds of students is very useful when planning, designing, and individualizing instruction, but in fact, few programs systematically collect or draw upon such information. (AL1: 13)

- Even when data are collected about students, the focus tends to be on record-keeping, numerical, and program progress data only (for example TOEFL scores, grades), with little effort to systematically build and utilize knowledge pertaining to individual language learning background or success. (AL1: 14)
- While contrastive and comparative approaches towards second language acquisition have been undertaken in areas such as grammar and syntax, phonology, lexis, discourse, and rhetoric (e.g. James 1980; Odlin 1989; Connor 1996; Swan 1997) less work has been undertaken as regards figurative language; a review of this work is provided in the section entitled 'Learning L2 figurative language'. (AL5: 13)
- Although recasts as a type of input have been investigated in L2 negotiation in and out of the classroom (e.g., Doughty, 1993; Lyster, 1998a, 1998b; Lyster & Ranta, 1997; Mackey, 1999; Mackey, Gass, & McDonough, 2000; Mackey & Philp, 1998; Oliver, 1995, 2000; and Ortega & Long, 1997), the usability and use of recasts in second language development is far from clear. (LL2: 2)
- Research reports on the acquisition of tense and aspect have made reference to the possibility of L1 influence as a contributing factor to the observed language behavior (Bayley, 1994; Flashner, 1989; Giacalone Ramat & Banfi, 1990; Shirai & Kurono, 1998), but to date, there has been little systematic investigation of this issue in aspect hypothesis research.[1] (LL3: 7)
- However, in the absence of data from other L1 groups learning the same L2, it is difficult to know the degree to which the observed patterns are generalizable. (LL3: 9)
- Scarce, however, is research investigating the impact of and potential interaction between reader-based factors, such as L2 reading proficiency, previous knowledge of the vocabulary contained within the text (hereafter referred to as *passage sight vocabulary),* and background knowledge. (LL4: 14)
- In a recent state-of-the-art article on learner strategies, McDonough (1999), among other recommendations, calls for further investigation into the relationship between proficiency and learning strategies in the skill areas (particularly listening and speaking) and a need to "flesh out" the concept of the skilled learner. (LL5: 2)
- Furthermore, Lynch (1998), in his review of theoretical perspectives on listening, calls for further investigation into the link between second language (L2) listening level and listening strategies, as well as examining listeners' on-line procedures for monitoring and remedying gaps in comprehension. (LL5: 3)
- Although these studies shed light on the strategies used by L2 learners of different languages at different levels of language proficiency and on a variety of language tasks, a more fruitful methodology for tapping the more covert processes and strategies involved in listening needed to be found. (LL5: 17)
- Determining the nature of computer-mediated negotiated interaction and establishing the degree to which such negotiation is similar to that reported in traditional interactionist studies is essential if we are to use a theoretical rationale based on face-to-face interaction to justify the use of similar activities in a CMC environment. (MLJ1: 27)
- It is assumed that L1 research has implications for vocabulary acquisition in a L2 (Stoller & Grabe, 1993), but it is still largely unknown whether strategies for

vocabulary building that prove fruitful for L1 learners also produce significant gains in learners of a L2. (MLJ2: 3)

- The studies underlined the need for systematic investigation of subtypes of explicit L2 instruction so that inferences regarding their relative effectiveness can be drawn.[1] (MLJ3: 5)
- Although IP research has led to many developments related to our understanding of the acquisition of grammar (e.g., Gass, 1997; VanPatten, 1996), the potential of this approach in other areas of acquisition could be exploited more fully. (MLJ5: 3)
- One such area is L2 lexical acquisition. (MLJ5: 4)
- However, only a limited amount of research has focused specifically on L2 lexical acquisition from the perspective of IP, beginning with *word-level input processing,* or how learners process new L2 words as input. (MLJ5: 7)
- These two putative discourse universals have been investigated only separately (i.e., in separate studies or as separate hypotheses) in past studies of L2 article acquisition, yet both are related directly to each other under the notion of topic continuity (e.g., Givón, 1983); together they form the following six-cell taxonomy (compare with the simpler taxonomy in Chaudron & Parker, p. 45): (SSLA1: 3)
- Given that discussions of recasts are related to various lines of investigation, a comprehensive understanding of their benefits requires consideration of negative evidence, salience, and interaction research. (SSLA3: 11)
- Currently, there is a paucity of work that directly investigates learners' noticing of forms as a result of linguistic and conversational modifications in oral interaction.[3] (SSLA4: 25)
- Further research testing the validity of a word integrity effect is clearly called for. (SSLA5: 48)

Move 2- Step 1C / Question-raising

- If learners come to the L2 classroom with knowledge of the metaphorical system of their L1 we may well ask ourselves whether it is possible to speak of metaphorical or figurative competence as a component of language proficiency and if so of what it may be comprised? (AL5: 12)
- For this reason we are at present unable to answer such questions as: how far are learners able to access L1 figurative knowledge in either comprehension or use of L2 figurative language? (AL5: 14)
- And, to what extent would it be beneficial if they could? (AL5: 15)
- Given that the evidence in support of the aspect hypothesis shows patterns common to learners of a variety of L2s with a variety of L1s (Bardovi-Harlig, 1998), a research question of both theoretical and pedagogical importance is whether and to what degree L1 interacts with L2 in this domain. (LL3: 6)
- Why is the rate of second language (L2) incidental vocabulary learning lower for some learners as opposed to others? (LL4: 1)
- Moreover, which factors contribute to the individual differences observed for incidental vocabulary acquisition through reading, and under what conditions? (LL4: 2)
- Whether or not similar *Matthew effects* are observed for explicit aspects of L2 vocabulary development through reading is an empirical issue for second language

acquisition (SLA) research investigating the phenomenon of "picking up" words as a by-product of reading. (LL4: 4)

- At what proficiency level is a L2 learner able to take advantage of complex vocabulary-building strategies that have been shown effective for L1 learners? (MLJ2: 4)
- This type of concurrent semantic overlap and mismatch draws into question the role of *semantic elaboration* during L2 lexical learning. (MLJ5: 15)
- How can the internal processes of noticing be tapped at the time in which the learner is engaged in interaction? (SSLA4: 27)
- Would the same pronunciation occur if NSs of English were speaking L2 Russian? (SSLA5: 30)

Move 2- Step 1D / Continuing a Tradition

- The present study reports on a follow-up replication, in grades 3 and 5, of previous findings that compared reading and writing skills in Spanish and Náhuatl, focusing on developmental trends among a selected group of forty-five 2nd, 4th, and 6th graders (Francis 1997). (AL2: 7)
- The present study was part of a series of studies addressing L2 lexical acquisition from this word-level IP perspective. (MLJ5: 8)

Move 3 - Step 1A / Outlining Purposes

- The study reported in this paper represents the fledgling attempts of one intensive English program to systematically collect language learning and program progress data about our adult students in a knowledge bank. (AL1: 15)
- At the phase of the study discussed here, the main purpose was to limit the set of LL background features under examination to those which appear to be most useful when contrasting high and low success subjects. (AL1: 16)
- The first research question posed for the follow-up study is methodological: would a more discrete-point type, more test-like, group assessment (in the case of the 3rd and 5th grade cohort) reveal the same tendencies that emerged from the application of individual, interview-type, literacy assessments? (AL2: 13)
- The second question is more theoretical in nature, related to the need to elaborate upon, or extend, Cummins's hypothesis-to pose more explicitly how the different domains of language proficiency are autonomous and in what manner they interact. (AL2: 14)
- The study described in this article looks at categories within one of the CS taxonomies (Poulisse 1990) and investigates the extent to which they are related to different styles of thinking. (AL3: 25)
- It investigates whether or not different *cognitive styles* are associated with a tendency to use different categories of CSs. (AL3: 26)
- The description and empirical research in this paper begins to provide answers to such questions-if only by illustrating one possible way in which they could be investigated. (AL5: 16)
- The purpose of the study is not the identification of particular problems these writers may have with the use of lexical repetition but rather to provide insight into what it means to call them "developing" writers. (LL1: 25)

- The present study examines the occurrence and use of recasts in adult native speaker (NS)/nonnative-speaker (NNS) interactions, with a focus on different types of negotiation and different levels of grammaticality. (LL2: 3)
- To this end, the present study considers the impact on L2 incidental vocabulary gain and retention through reading of (a) L2 reading proficiency, (b) L2 passage sight vocabulary, and (c) background knowledge. (LL4: 18)
- This article attempts to strengthen our understanding of skilled L2 listeners and how these listeners pursue the "effort after meaning" (Lynch, 2002, p. 48). (LL5: 4)
- The following research questions are to be addressed over this period: (a) What are the differences in listening strategy use reported by more skilled and less skilled listeners? (b) What is the difference in reported strategy use over time between the control group and the experimental group? (c) What is the difference in listening achievement over time between the experimental and the control group? (d) Are less skilled listeners in the experimental group able to make greater gains in achievement? (e) Do less skilled listeners in the experimental group report more metacognitive strategies than the less skilled listeners in the control group? (LL5: 6)
- This substudy, in particular, focuses on the first research question. (LL5: 7)
- It seeks to identify the listening strategies used by junior high school students and then compare the strategies used by the more skilled and less skilled listeners. (LL5: 8)
- I will examine the baseline data collected for the main study to answer the following questions: (a) What are the strategies that junior high school learners of French use while listening to an authentic text in French? (b) What are the differences in reported listening strategy use between the more skilled and less skilled listeners? (LL5: 9)
- The present study was exploratory in nature in that it sought to determine how far computer-mediated negotiation resembles face-to-face negotiation. (MLJ1: 28)
- This study also attempted to determine whether the role of task type has a similar effect on computer-mediated NNS-NNS interaction as has been noted in the face-to-face literature. (MLJ1: 30)
- The purpose of the current study was to examine the acquisition of derivational morphology—the use of suffixes that can change the part of speech and cause variations in meaning—by native English-speaking learners of Spanish. (MLJ2: 1)
- This strategy is of particular interest to the current study. (MLJ2: 14)
- The purpose of the present study was to isolate deductive and inductive grammar teaching as two subtypes of L2 instruction that have been the object of a small number of research investigations. (MLJ3: 6)
- The purpose of the present study was twofold: first, and most important, to establish a foundation for a research stream addressing flow in language learning, and, second, to conduct an initial investigation of whether flow exists in foreign language (FL) classrooms. (MLJ4: 10)
- The present study was an examination of whether this effect would obtain for a + semantic task with greater ecological validity with regard to classroom-oriented vocabulary instruction than making pleasantness ratings: specifically, addressing questions about word meaning during L2 vocabulary learning. (MLJ5: 26)

- For now, it is relevant to state that the purpose of the present study is to investigate whether learners differentiate between these six discourse conditions and, if so, how and to what degree articles are involved in the discourse distinctions learners make. (SSLA1: 5)
- Given the mutually relevant assumptions shared by the fields, the current investigation presents an analysis of the acquisition of copula contrast in Spanish in light of recent sociolinguistic research. (SSLA2: 6)
- This paper explores the extent to which learners notice the form of recasts of their nontargetlike utterances. (SSLA4: 15)
- The central research question addressed in this study, in the context of dyadic interaction, is: Do learners notice recasts? (SSLA4: 20)
- This study examines articulatory timing between words in connected speech, comparing native speakers (NSs) with nonnative speakers (NNSs). (SSLA5: 1)
- In particular, it examines the word-to-word timing of NSs of English and Russian speaking both English and Russian. (SSLA5: 2)
- The experiment described in this paper explicitly tests these predictions. (SSLA5: 52)
- This paper thus investigates the issue as to what happens to word-to-word articulatory timing when NSs of English and Russian produce the L2. (SSLA5: 53)
- Two questions in particular arise:
  1. To what extent will the native articulatory timing patterns transfer to the L2?
  2. Will any universal tendencies, such as a word integrity effect, appear in the interlanguage articulatory timing? (SSLA5: 54)

Move 3 - Step 1B / Announcing Present Research

- This is the context of the present study of literacy development in a bilingual indigenous community of Tlaxcala state in Central Mexico where today Spanish and Náhuatl are spoken by the vast majority of entering 1st grade children, and where by 5th grade, universal bilingual conversational proficiency is the norm. (AL2: 5)
- Exceptions would be rare, for example, Spanish dominant bilinguals with less than completely fluent productive command of Náhuatl. (AL2: 6)
- Such a descriptive scheme favors both consistency in the gathering of data and validity at the lower of levels of interpretation (i.e. initial description). (AL2: 23)
- For reasons that will become clearer later in the article, the CSs that are examined in this study conform to the former, narrower definition. (AL3: 5)
- As the study is only a preliminary exploration of the relationship between cognitive styles and CS preferences, it is limited to CSs which are used in order to compensate for gaps in learners' lexis; the strategies that are described by Poulisse (1990: 1) as 'compensatory strategies'. (AL3: 28)
- In this study, the distinction between the narrow low-rise and wide low-rise was operationally defined by pitch rise. (AL4: 28)
- The narrow low-rise had a maximum rise of 40 Hz, while the wide low-rise was over 60 Hz.[3] (AL4: 29)
- Using pitch range to distinguish the contours was necessary because the phrase accent is clearest only when there is enough intervening prosodic material between the pitch accent and the boundary tone to show the full timing of the phrase accent (Pierrehumbert 1980). (AL4: 30)

- However, in this study, phrase accent and boundary tone were often so close that the exact placement of the phrase accent was estimated. (AL4: 31)
- Thus, an L phrase accent was defined by a limited rise (that is, to a mid pitch rather than a high).[4] (AL4: 32)
- This model is used to devise a research instrument that aims to investigate the ways in which English figurative language is, or is not, accessible to Malay speaking learners of English. (AL5: 18)
- This is then implemented in a small-scale piece of empirical research with a sample of tertiary level Malay speaking learners of English. (AL5: 19)
- Proficiency with figurative language is measured in terms of the comprehension and production of L2 figurative expressions and understanding of their connotations. (AL5: 20)
- The present study begins with the premise that lexical repetition is an index of the semantic structure of a text. (LL1: 22)
- As such, it provides a useful tool for investigating how developing writers structure their texts in relation to the demands of different genres, cultural preferences, and linguistic abilities. (LL1: 23)
- The data for the study come from 191 timed, assessment-type essays written by first- and second-language writers. (LL1: 24)
- The study reported here is part of a 2-year longitudinal investigation of listening comprehension strategy instruction in which I will compare the progress of an experimental and a control group of students from the beginning of grade 7 through the end of grade 8. (LL5: 5)
- To this end, the most widely used model of negotiation (Varonis & Gass, 1985) was employed to evaluate these computer-mediated negotiation routines. (MLJ1: 29)
- Reflecting upon questions related to the meaning of new words, however, is a semantically oriented task that one can readily implement in one form or another in the classroom. (MLJ5: 28)
- Whereas Barcroft (2002) provided evidence negating the utility of semantic elaboration for the initial stages of L2 word learning by using a task generally atypical of classroom practices, the present study focused on the effect of semantic elaboration involving a task more typical of and amenable to classroom use. (MLJ5: 30)
- More specifically, the present study compared a condition in which the participants addressed questions about word meaning to a condition in which they were not asked to address questions about the meaning of words in order to compare their performance on three recall tasks: (a) free recall of the target L2 words (recall target L2 words from memory in absence of other stimuli such as pictures or L1 equivalents as cues for doing so); (b) free recall of the L1 equivalents of target L2 words (recall L1 equivalents of target L1 words from memory in absence of other stimuli as cues for doing so); and (c) cued recall of the target L2 words (recall target L2 words using pictures of the referents of the target L2 words as stimuli for doing so). (MLJ5: 31)
- The data examined in this paper, which relate to the examples given above, are narrative descriptions of a silent film that were written by Finnish speaking and Swedish-speaking adolescent learners of English at three distinct levels of English instruction. (SSLA1: 6)

- Taking advantage of the empirical design of the study, I consider learners' sensitivity to topic continuity in conjunction with the potential moderating effects of the L1 and learners' general stage of acquisition—factors that were found in past studies to affect learners' patterns of article use (e.g., Huebner, 1985; Jourdenais, 1999; Master, 1987, 1997; Parrish, 1987; Young, 1995). (SSLA1: 7)
- The bulk of the empirical portion of this study is quantitative, but I also examine a subset of the data qualitatively to provide a fuller description of the nature of individual learners' interlanguage article systems. (SSLA1: 8)
- The current research evaluates data from second language learners of Spanish using sociolinguistic variables in order to compare the paths of language change with those of language acquisition. (SSLA2: 9)
- This analysis makes it possible to evaluate whether the hypothesized mirror-image correspondence between sociolinguistics and SLA is an accurate description of the relationship between these two processes. (SSLA2: 10)
- Recasts in the present study included all NS utterances immediately following a NNS's nontargetlike utterance that reformulated part or all of the utterance while maintaining the central meaning (Long, Inagaki, & Ortega, 1998). (SSLA4: 18)
- No explicit emphasis was given to the changed elements in the recast; rather, the recasts were provided as confirmation checks, as seen in (1). (SSLA4: 19)
- Therefore, one of the challenges for this study was to develop a means of measuring noticing in oral interaction. (SSLA4: 28)

Move 3 - Step 2 / Announcing Principal Findings

- The findings of the present exploratory study suggest a series of reflections regarding the above-mentioned aspects of bilingual proficiency: (1) the related constructs of Common Underlying Proficiency (CUP), CALP, and interdependence, and (2) transfer. (AL2: 15)
- Perhaps the exceptional circumstances of the sharp sociolinguistic imbalance between the dominant and subordinate languages make the results sufficiently non-trivial; nonetheless, the findings do turn out to be predictable. (AL2: 16)
- At the same time, these same exceptional circumstances, that are in fact reflected in the data, point to the need to sharpen our conception of bilingual proficiency. (AL2: 17)
- To this end, the general inquiry into this complex phenomenon would benefit in two ways, producing: (1) a more coherent body of descriptive research informed by theoretically more precise models, and (2) in turn contributing to the emergence of a new generation of experimental studies with truly explanatory capabilities. (AL2: 18)
- The findings themselves fall short of lending support to the hypotheses associated with CUP and CALP; rather, they suggest directions for further research along the lines of a 'compartmentalized' model of this sort. (AL2: 22)
- It is argued that if a category of CSs were found to be used more by a group of learners who have a particular cognitive style, then that category of strategies could be said to be *characterized* by that cognitive style. (AL3: 27)
- The findings-although constrained by the limited data available-show evidence that learners encounter greater difficulty with English figurative phrases that have a different conceptual basis from that of Malay. (AL5: 21)

- However, if they could be confirmed by further larger scale research (using the same or a similar model and including other languages) they would support the view that learners share a general conceptualizing capacity regardless of differences in language and culture. (AL5: 22)

Move 3 - Step 3 / Indicating RA Structure

- The following discussion of the construct of bilingual proficiency, and the proposal for an elaboration of the CUP/CALP model is presented here as a tentative descriptive scheme for the purpose of reporting and interpreting the results of the study. (AL2: 21)
- As the study is based on CS categories within the Nijmegen Taxonomy, this taxonomy is outlined below. (AL3: 29)
- Initially, after surveying the literature, I contrast some of the conceptual and linguistic characteristics of English and Malay figurative phrases in order to arrive at a contrastive, descriptive model based on their similarities and differences. (AL5: 17)
- As background for the present study, I first examine the claims made for input and interaction features in L2 acquisition and then review the research on negative evidence in first language (L1) and L2 acquisition. (LL2: 4)
- Also included in this section is a brief discussion of the effects of negotiation type on NNS responses. (LL2: 5)
- Before outlining how this issue was addressed in the two studies of Francophone ESL learners reported on here, I will begin with an overview of the aspect hypothesis, its predictions for the L2 acquisition of English, and the existing evidence for the predictions. (LL3: 12)
- The article presents a brief overview of research to date and the results from a study conducted by the researcher. (MLJ3: 7)
- In the first section, this document describes and models the relationship between flow and learning. (MLJ4: 11)
- A refined version of the model suggests the hypothetical relationship between flow and language learning. (MLJ4: 12)
- The next section suggests possible barriers to flow in language classrooms and presents tasks that might encourage flow. (MLJ4: 13)
- The third section presents the results of an initial field study that involved determining whether flow occurs in the FL classroom and during what kind of tasks flow might occur in the language classroom. (MLJ4: 14)
- The final section then focuses on the limitations and implications of the findings for language learning and teaching and suggests directions for future research related to Flow Theory. (MLJ4: 15)
- I will describe the differences between these six categories a little later on. (SSLA1: 4)
- After a review of the literature on the different articulatory strategies of NSs of English and Russian and the acoustic consequences of these strategies, an acoustic experiment that addresses these questions will be described. (SSLA5: 55)
- Implications for further L2 research will also be noted. (SSLA5: 56)

APPENDIX III: THE LIST OF LEXICAL PHRASES

In the list of lexical phrases, a big dot was used to indicate polywords, and an asterisk to indicate institutionalised expressions. The other lexical phrases are sentence builders.

Lexical phrases of claiming centrality

1. In Literature

a. Research frequency
- *Phenomena* have received considerable attention. (SSLA1: 2)
- *Name of research area* remains a "young field" that merits greater research attention. (LL5: 1)
- The amount of *name of research area* research involving ... has increased substantially over the past ... decades. (MLJ5: 5)
- *Phenomenon* has been included in most accounts of .... (AL4: 1)

b. Research importance
- Two interrelated problems that are of crucial importance in *name of research area* theory and research are .... (SSLA3: 1)
- Given that ..., it is important that research focus on *aspect of phenomenon.* (MLJ5: 29)
- The importance of *phenomenon* has been highlighted in many studies. (SSLA5: 7)
- However, *phenomenon*'s importance has also been claimed by ... researchers. (AL4: 8)

c. Research interest
- *Phenomenon* has become of increasing interest to *researchers of a field* during recent years. (AL5: 1)
- Interest in ... has led researchers in *name of research area* to focus on *aspect of phenomenon.* (AL3: 1)
- For many investigators who study ..., *phenomena* present the most interesting cases. (AL2: 3)

2. In Real World

a. Frequency of the phenomenon
- The use of *phenomenon* has recently increased in .... (MLJ1: 2)
- Phenomena such as ... are very frequent in everyday situations of .... (AL5: 2)
- *An everyday situation* is likely to involve some *phenomenon.* (LL1: 1)

b. Usefulness of the phenomenon
- *Phenomenon* appears to be a potentially useful tool for .... (MLJ1: 3)
- *Phenomenon* is an effective tool for .... (MLJ2: 2)
- From a ... perspective on ..., this is considered one of the most beneficial aspects of *phenomenon.* (MLJ1: 25)
- From this theoretical perspective, *phenomenon* in particular is viewed as beneficial for .... (MLJ1: 26)

c. Importance of the phenomenon
- *Phenomenon* is the principal means of .... (LL1: 15)
- The study of *phenomenon* is important, as .... (AL3: 2)
- It is important for ... to understand *aspect of phenomenon.* (MLJ1: 1)
- *Phenomenon* is fundamental to the potential that .... (SSLA4: 21)
- *Phenomenon* plays a significant role in .... (LL5: 1)

d. Difficulty of the phenomenon
- *Phenomenon* is potentially challenging for .... (AL5: 3)

e. Centrality to another phenomenon
- *Phenomenon* can provide the ... conditions conducive to .... (LL2: 1)
- *Phenomenon* can be a rich source of .... (SSLA4: 1)
- It is widely held that *phenomenon* is especially facilitative for .... (MLJ1: 9)

Lexical phrases of making topic generalisations

1. Overview (theories / hypotheses / models / issues / variables)
   - This research has dealt with matters such as .... (MLJ5: 6)
   - Researchers influenced by ... have used logical models of .... (SSLA3: 2)
   - Researchers espousing this view have maintained that .... (SSLA3: 3)
   - *Name of research area* and *name of research area* researchers both study *phenomenon* in terms of .... (SSLA2: 4)
   - These two lines of investigation converge around the issue of identifying the effects of ... on .... (SSLA3: 8)
   - In particular, these two research domains have come together in the study of *phenomenon.* (SSLA3: 9)
   - This approach follows current research trends in the area, in that it investigates .... (AL3: 24)
   - This argument has been extended from *name of research area* to *name of research area* research by *name of research area* researchers investigating .... (SSLA3: 4)
   - Theories of both ... and ... predict that .... (SSLA5: 49)
   - Developments in *name of research area* have led to improvements in .... (AL5: 6)
   - Among the foundations of *name of research area* research on ... are .... (MLJ5: 1)
   - Research on *phenomenon* has utilized these foundations to view ... as .... (MLJ5: 2)
   - *Name of theory* involves the complex interplay of a number of variables. (MLJ4: 4)
   - One approach to understanding *phenomenon* has been based on the hypothesis that .... (LL3: 1)
   - These factors have been known to influence .... (LL4: 15)
   - It has even been predicted that .... (SSLA2: 5)
   - The result has been the appearance of a number of different *phenomenon* taxonomies. (AL3: 9)
   - Although the importance of *phenomenon* has been claimed for ..., conclusions about its role in ... have often seemed contradictory. (AL4: 6)

- Though the use of … is generally considered sound pedagogical practice, the theoretical and empirical support for the efficacy of … for facilitating … is less than conclusive. (MLJ1: 8)

2. General research practices
   - *Name of research area* researchers studying the effects of … have conducted both observational and experimental studies of …. (SSLA3: 5)
   - As different *phenomena* have emerged from the data a challenging task for researchers has been to find useful ways of classifying them. (AL3: 8)
   - Both areas of study refer to … to explain the data and results that are obtained from individual analyses. (SSLA2: 2)
   - In part, this lack of research is due to the difficulty of operationalizing …. (SSLA4: 26)
   - Unfortunately, the very complexity and the individualized nature of the problem make it difficult to examine …. (AL1: 10)
   - There are a variety of ways in which researchers have gone about the task of identifying …. (AL3: 13)
   - *Phenomenon* was considered to be …, although this led to descriptive conflicts. (AL4: 16)

3. General findings
   - Previous *name of research area* research has shown that …. (SSLA5: 4)
   - Past research on *phenomenon* has shown that …. (SSLA1: 1)
   - Research has found *phenomenon* to exhibit features of …. (MLJ1: 13)
   - Other studies of *phenomenon* have not found … effect, however. (SSLA5: 43)
   - There is now substantial evidence that lends support to …. (MLJ3: 1)
   - *Name of research area* researchers have found that the following conditions occur during … experiences: …. (MLJ4: 5)
   - *Aspect of phenomenon* has been found to be …. (SSLA2: 7)

4. Background information about phenomenon
   - Among those characteristics [*of the phenomenon*] is …. (MLJ1: 14)
   - One key difference between *phenomenon* and *other phenomenon* is …. (AL4: 3)
   - *Phenomenon* possesses many unique characteristics as well. (MLJ1: 16)
   - Characteristics of *phenomenon* include …. (MLJ1: 15)
   - *Aspect of phenomenon* includes many more … than …. (MLJ1: 19)
   - The impact of various … factors may fluctuate under differing … conditions. (LL4: 12)

5. Author's comments / conclusions / inferences
   - A further advantage of this approach to the study of *phenomenon* is that it might also help researchers to determine why …. (AL3: 22)
   - It might also help explain why …. (AL3: 23)
   - These two observations would appear to be entirely consistent with *name of researcher*'s hypothesis of …. (AL2: 12)
   - *Phenomenon* may provide an ideal medium for … to benefit from … primarily because …. (MLJ1: 23)

- If it could be demonstrated that ..., then this would give some insight into .... (AL3: 21)
- In a sense, the shift they propose from focusing on ... to exploring ... is congruent with the paradigm change in *name of research area*. (LL1: 21)
- There is a need to use tools that .... (AL1: 11)
- Although ... may be useful from an experimental standpoint, it is not typical of .... (MLJ5: 27)
- Seduced by ..., we may be tempted to assume that .... (MLJ1: 11)
- ... as a data collection instrument seems to be less intrusive in many ways than .... (MLJ1: 7)
- From this perspective, one could posit that ... is of less benefit in ... than in .... (MLJ5: 23)
- One could further posit that ... results in less effective ... because .... (MLJ5: 24)
- Growing understanding of ... offers the potential for comparative studies and raises the possibility of drawing on ... knowledge in the interpretation of .... (AL5: 10)
- Thus, they should also be robust determinants of *phenomenon*. (LL4: 16)
- The two theories make opposite predictions for ..., however. (SSLA5: 50)

6. Author's proposals
   - At the present stage of the research on ... the emphasis must continue to be on reliable descriptions of .... (AL2: 19)
   - Presently, our goal remains that of describing .... (AL2: 20)
   - It is hoped that a combination of ... and ... approaches may provide insight into ... and encourage a more systematic ... treatment. (AL5: 5)
   - A study of the nature of the role of these factors in ... may not only contribute to ..., but also help to explain .... (LL4: 17)
   - Evidence that ... would provide support for the connection between ..., ..., and ..., and it may further our understanding of .... (SSLA4: 24)
   - These ... exemplify ... and thus provide an interesting test case for the question as to what happens to .... (SSLA5: 3)
   - Universal preferences for ... might make ... particularly well suited for .... (SSLA5: 40)
   - An alternative approach is to concentrate on ..., and to look for areas where .... (AL3: 18)
   - Because of ..., we may capture and readily access this ... for both research and pedagogical purposes. (MLJ1: 6)
   - Given this rhetorical significance, it seems logical to investigate whether .... (LL1: 17)

7. Examples / definitions supplied by the author
   - For example, ... (MLJ1: 17; MLJ5: 14; SSLA5: 18)
   - For example, there may be some occasions when .... (LL4: 10)
   - These are not the only instances of *phenomenon*, but they are sufficient to illustrate how .... (LL1: 11)
   - *Phenomena*, in which ..., exemplify this process. (SSLA4: 11)
   - An example of *phenomenon* is a situation in which .... (MLJ5: 17, 19)

- An overlay of *phenomenon* is shown in Figure .... (AL4: 25)
- In the following .... (LL1: 3)
- *Phenomenon* refers to a situation in which .... (MLJ5: 16, 18)
- *Phenomena* are defined in different ways by different researchers. (AL3: 3)

Lexical phrases of reviewing items of previous research

1. Research issues / directions
   - There are studies in which ... *(citation)*. (LL3: 8)
   - There are also large-scale cross-sectional studies of *phenomenon (citation)*. (LL3: 10)
   - There has also been some empirical research into *phenomenon (citation)*. (AL5: 9)
   - A recent trend in this area is for researchers to base their classifications on ..., rather than ... *(citation)*. (AL3: 11)
   - These studies provide data against which a study isolating *name of variable* in *phenomenon* may be compared. (LL3: 11)
   - *Researchers of a field* have not only selected relevant variables to describe ..., but they have also succeeded in describing ... in terms of such variables *(citation)*. (SSLA2: 8)
   - Research into *aspect of phenomenon* goes back at least ... years *(citation)*. (AL3: 7)
   - In order to identify ..., *name of researchers (year)* investigated .... (LL5: 10)
   - *Name of researcher* and others *(citation)* have investigated *phenomenon*. (MLJ4: 3)
   - In short, the purpose of the previous study was to examine .... (AL2: 10)
   - Of particular interest was the degree to which .... (AL2: 8)
2. Findings

   General:
   - Research suggests that ... *(citation)*. (MLJ1: 4)
   - Research investigating *phenomenon* has found that ... *(citation)*. (LL3: 5)
   - This research has identified various ... features typical of ... *(citation)*. (SSLA3: 6)
   - *Name of research area* research has begun to explore the effects of ... on ... and has found that ... *(citation)*. (SSLA3: 7)
   - Recent advances in *name of research area* have shown that ... *(citation)*. (SSLA2: 1)
   - The studies on *phenomenon* previously noted *(citation)* have demonstrated .... (SSLA5: 31)
   - *Phenomena* have been shown to abound in ... *(citation)*. (MLJ1: 10)
   - *Phenomena* have been reported to be largely optional in ... *(citation)*. (MLJ1: 18)
   - *Name of variables* have also been observed during *phenomenon (citation)*. (MLJ1: 22)
   - Results from the majority of studies that have investigated *aspect of phenomenon (citation)* have proved either inconclusive or contradictory *(citation)*. (LL1: 18)
   - *Name of researchers* review recent research indicating that .... (AL1: 5)

- *Name of researcher (year)* concluded from a wealth of research that .... (MLJ2: 10)
- *Name of researchers (year)* summarized findings from experimental and quasi-experimental investigations into the effectiveness of *phenomenon* published between *year* and *year* and found that .... (MLJ3: 2)

Specific:
- They also reported robust evidence to suggest that .... (MLJ3: 3)
- *Name of researcher (year)* reported that .... (LL4: 3)
- The researchers found that .... (LL5: 11)
- *Name of researchers (year)*, however, found that .... (SSLA5: 47)
- *Name of researchers (year)*, *name of researcher (year)*, and *name of researcher (year)* all found *aspect of phenomenon* applying across .... (SSLA5: 44)
- *Name of researcher (year)*, however, found an asymmetry between ... and .... (SSLA5: 36)
- For example, *name of researchers* demonstrated that *phenomenon* had a significant, negative effect on .... (SSLA5: 9)
- They concluded that .... (LL5: 12)
- *Name of researcher (year)* presented evidence consistent with this position by demonstrating that .... (MLJ5: 25)
- A subsequent study of *subjects* revealed a similar pattern of .... (LL5: 14)
- In contrast to the findings in the earlier *name of research area* study, *subjects* reported more ... than *subjects*. (LL5: 15)
- In his study, *subjects* were significantly more likely to ... than they were to ... (SSLA5: 37)
- *Name of researcher (year)* showed that .... (AL3: 19)

3. Arguments / hypothesis / models in literature
   - *Name of researcher*(s) (year, page number) suggest(s) / suggested that .... (MLJ4: 8, 9; SSLA5: 45)
   - Following up on these findings, *name of researcher (year)* suggested that .... (SSLA5: 33)
   - *Name of researcher* suggests a *name of research area* theory which includes .... (AL1: 3)
   - As early as *year*, *name of researcher* suggested a taxonomy of .... (AL1: 4)
   - In fact, it has been suggested that .... (LL4: 13)
   - It has been further suggested that the findings have implications for .... (LL3: 4)
   - *Name of researchers (year)* claim .... (AL4: 23)
   - *Name of researchers* claim that one reason for conflicting research findings to date has been .... (AL1: 7)
   - *Name of theory* claims that ... *(citation)*. (MLJ4: 7)
   - It has also been claimed to be similar in ... to ... *(citation)* and has been associated with ... *(citation)*. (AL4: 11)
   - This conflation has also been claimed for ... *(citation)*. (AL4: 15)
   - (In the same vein,) *name of researcher*(s) *(year)* argued that .... (MLJ2: 5, 7, 9, 12)
   - (A number of) researchers have argued that ... *(citation)*. (SSLA4: 10; AL5: 8)

- Other studies *(citation)* have argued that .... (SSLA5: 32)
- It has been argued that ... *(citation)*. (LL3: 3)
- This has led *name of researcher (year)* and others *(citation)* to argue in effect that .... (LL1: 19)
- *Name of researcher*(s) *(year)* noted that .... (SSLA5: 14, 28)
- *Name of researcher* attributed this asymmetry to .... (SSLA5: 38)
- *Name of researcher (personal communication)* attributes much of the confusion about *phenomenon* to .... (AL4: 13)
- *Name of researcher (year)* agreed that .... (MLJ2: 11)
- They counter that .... (LL1: 20)
- These researchers recognize that .... (AL1: 9)
- These publications have emphasized that .... (SSLA5: 8)
- *Name of hypothesis (citation)* predicts that .... (LL3: 2)
- In *year*, *name of researcher* proposed the use of ... as a means to test his general model of *name of research area*. (AL1: 12)
- They advocate investigation of .... (AL1: 8)
- *Group of* researchers have championed *phenomenon (citation)*. (AL4: 7)
- *Name of researcher (year)* adopts a ... perspective which takes account of .... (AL3: 16)
- *Name of researcher (year)* uses *name of researcher*'s *(year)* ... model of ... to draw up a taxonomy referred to as .... (AL3: 17)
- According to *name of researcher*'s *name of hypothesis (citation)*, ... (SSLA4: 22)
- This argument echoes what *name of researchers (year)* called .... (MLJ2: 8)
- Two general observations suggested the necessity of refining the notion of ...: (1) ...; (2) .... (AL2: 11)
- They proposed a framework of .... (LL5: 13)
- *Name of researchers (year)* offer a taxonomy ... based on .... (AL3: 15)
- *Name of researcher (year)*, *name of researchers (year)*, and *name of researcher (year)* note the many and individualized aspects of *phenomenon*. (AL1: 2)
- *Name of researcher (year)* takes *phenomenon* and divides it into .... (AL3: 14)

4. Quotations
   - *Name of researchers (year)* say that *quotation*. (AL4: 19)
   - *Quotation*, they state *(year, page number)*. (AL1: 6)
   - This belief is asserted by *name of researcher (year)*, who says that *quotation*. (AL4: 22)
   - As *name of researcher* comments: *quotation (citation)*. (AL5: 11)
   - *Name of researcher (year)* also points to the importance of *phenomenon*: *quotation (page number)*. (SSLA4: 23)

5. Definitions / examples from literature
   - *Name of researcher (year)* has described such *phenomenon* as .... (MLJ1: 24)
   - Those experiencing *phenomenon* describe it as ... *(citation)*. (MLJ4: 6)
   - However, traditional ... accounts on *phenomenon* have described *phenomenon* as ... *(citation)*. (AL4: 20)
   - *Phenomena* have generally been described as ... *(citation)*. (SSLA4: 16)

- Some *(citation)* restrict their definition of *phenomenon* to cases in which ..., whereas other researchers *(citation)* consider them to include .... (AL3: 4)
- These *phenomena* are referred to by some researchers *(citation)* as .... (AL3: 6)
- *Name of researcher (year)* called *phenomenon* .... (AL4: 9)
- *Name of researcher (year)* represents *phenomenon* as .... (MLJ4: 1)
- In his words, *phenomenon* represents .... (MLJ4: 2)
- Although there is variation, this definition has been widely adopted in *name of research area (citation)*. (SSLA4: 17)
- *Examples of phenomenon* have been accounted for with reference to ... *(citation)*. (AL5: 7)

Lexical phrases of counter-claiming

- These paradoxical claims concerning *phenomenon* can be reconciled by recognizing that .... (AL4: 12)
- The contradictions can be reconciled by recognizing .... (AL4: 24)

Lexical phrases of indicating a gap

- Even when data are collected about ..., the focus tends to be on ... only, with little effort to systematically build and utilize knowledge pertaining to .... (AL1: 14)
- To date, there has been little systematic investigation of this issue in *name of research area* research. (LL3: 7)
- While contrastive and comparative approaches towards ... have been undertaken in areas such as ... less work has been undertaken as regards *phenomenon*. (AL5: 13)
- However, only a limited amount of research has focused specifically on *phenomenon* from the perspective of .... (MLJ5: 7)
- Scarce, however, is research investigating .... (LL4: 14)
- Currently, there is a paucity of work that directly investigates .... (SSLA4: 25)
- ..., but it is still largely unknown whether .... (MLJ2: 3)
- Although *phenomena* have been investigated in ..., the usability and use of *phenomena* in ... is far from clear. (LL2: 2)
- In the absence of data from ..., it is difficult to know the degree to which the observed patterns are generalizable. (LL3: 9)
- Many researchers and theoreticians recognize the need to examine a wide variety of *name of research area* variables. (AL1: 1)
- Although these studies shed light on ..., a more fruitful methodology for tapping ... needed to be found. (LL5: 17)
- The studies underlined the need for systematic investigation of *phenomenon*. (MLJ3: 5)
- A comprehensive understanding of *phenomenon's* benefits requires consideration of .... (SSLA3: 11)
- Further research testing the validity of ... is clearly called for. (SSLA5: 48)
- In a recent state-of-the-art article on *phenomena*, *name of researcher (year)* calls for further investigation into .... (LL5: 2)
- *Name of researcher (year)*, in his review of ..., calls for further investigation into .... (LL5: 3)

- Although *name of research area* has led to many developments related to our understanding of ..., the potential of this approach in other areas of ... could be exploited more fully. (MLJ5: 3)

Lexical phrases of question-raising

- For this reason we are at present unable to answer such questions as: ...? (AL5: 14)
- This type of ... draws into question the role of *phenomenon*. (MLJ5: 15)
- A research question of both theoretical and pedagogical importance is whether and to what degree .... (LL3: 6)
- Which factors contribute to the individual differences observed for *phenomenon*, and under what conditions? (LL4: 2)
- Why is the rate of *phenomenon* lower for some ... as opposed to others? (LL4: 1)
- Whether or not similar Matthew effects are observed for ... is an empirical issue for *name of research area* investigating the phenomenon of .... (LL4: 4)
- If ... we may well ask ourselves whether it is possible to speak of ... and if so .... (AL5: 12)

Lexical phrases of continuing a tradition

- The present study reports on a follow-up replication of previous findings that compared ... and .... (AL2: 7)
- The present study was part of a series of studies addressing *phenomenon* from this ... perspective. (MLJ5: 8)

Lexical phrases of outlining purposes

1. Purpose
   - The (main) purpose (of the current / present study) was to examine, etc. .... (AL1: 16; MLJ2: 1; MLJ3: 6)
   - The purpose of the present study is to investigate whether .... (SSLA1: 5)
   - The purpose of the present study was twofold: first to ..., and, second, to .... (MLJ4: 10)
   - The purpose of the study is not ... but rather to .... (LL1: 25)
   - The (present) study / This study / It examines / seeks to identify *phenomenon*. (LL2: 3; SSLA5: 1, 2; LL5: 8)
   - The study reported in this paper represents .... (AL1: 15)
   - This paper explores the extent to which .... (SSLA4: 15)
   - The current investigation presents an analysis of *phenomenon*. (SSLA2: 6)
   - The present study considers the impact on *phenomenon* of *variables*. (LL4: 18)
   - This paper thus investigates the issue as to .... (SSLA5: 53)
   - This ... is of particular interest to the current study. (MLJ2: 14)
   * This paper begins to provide answers to such questions. (AL5: 16)
   - This article attempts to strengthen our understanding of .... (LL5: 4)
   * The experiment described in this paper explicitly tests these predictions. (SSLA5: 52)
   - The study described in this article looks at ... and investigates the extent to which .... (AL3: 25)

2. Research questions
   - The first / second / central (research) question (posed for the follow-up study / addressed in this study) is (:) .... (AL2: 13, 14; SSLA4: 20)
   - The following research questions are to be addressed: ...? (LL5: 6)
   - I will examine the baseline data collected for the main study to answer the following questions: ...? (LL5: 9)
   * This substudy, in particular, focuses on the first research question. (LL5: 7)
   - Two questions in particular arise: ...? (SSLA5: 54)
   - The present study was an examination of whether .... (MLJ5: 26)
   - The present study was exploratory in nature in that it sought to determine .... (MLJ1: 28)
   - This study also attempted to determine whether .... (MLJ1: 30)
   - It investigates whether or not .... (AL3: 26)

Lexical phrases of announcing present research

1. Methodology
   - The study reported here is part of a ...-year longitudinal investigation of *phenomenon*. (LL5: 5)
   - The present study compared a condition in which ... to a condition in which .... (MLJ5: 31)
   - The data for the study come from .... (LL1: 24)
   - The data examined in this paper are .... (SSLA1: 6)
   - The current research evaluates data from .... (SSLA2: 9)
   - This model is used to devise a research instrument that aims to investigate .... (AL5: 18)
   - The most widely used model of ... was employed to evaluate .... (MLJ1: 29)
   - *Variable* is measured in terms of .... (AL5: 20)
   - Therefore, one of the challenges for this study was to develop a means of measuring *variable*. (SSLA4: 28)
   - As such, it provides a useful tool for investigating how .... (LL1: 23)
   - This analysis makes it possible to evaluate whether the hypothesized correspondence between ... and ... is an accurate description of .... (SSLA2: 10)
   - This is then implemented in a small-scale piece of empirical research with a sample of .... (AL5: 19)

2. Operational definitions
   - (In this study,) *variable* was (operationally) defined by .... (AL4: 28, 32)
   - *Phenomena* in the present study included .... (SSLA4: 18)
   - Using ... to distinguish *phenomena* was necessary because .... (AL4: 30)

3. Limitations
   - As the study is only a preliminary exploration of ..., it is limited to *aspect of phenomenon*. (AL3: 28)
   - *Phenomena* that are examined in this study conform to the narrower definition. (AL3: 5)

4. Miscellaneous
   - This is the context of the present study of *phenomenon* where .... (AL2: 5)
   - The present study begins with the premise that .... (LL1: 22)

Lexical phrases of announcing principal findings

- The findings of the present exploratory study suggest a series of reflections regarding .... (AL2: 15)
- The findings show evidence that .... (AL5: 21)
- The findings themselves fall short of lending support to the hypotheses associated with ...; rather, they suggest directions for further research along the lines of .... (AL2: 22)
- The exceptional circumstances of ... make the results sufficiently non-trivial; nonetheless, the findings do turn out to be predictable. (AL2: 16)
- However, if they [the findings] could be confirmed by further larger scale research they would support the view that .... (AL5: 22)
- These same exceptional circumstances point to the need to sharpen our conception of *phenomenon*. (AL2: 17)

Lexical phrases of indicating RA structure

- In the first section, this document describes and models the relationship between ... and .... (MLJ4: 11)
- The next section suggests ... and presents .... (MLJ4: 13)
- The third section presents the results of an initial field study that involved determining whether .... (MLJ4: 14)
- The final section then focuses on the limitations and implications of the findings for ... and suggests directions for future research related to .... (MLJ4: 15)
- Also included in this section is a brief discussion of .... (LL2: 5)
- The following discussion of ..., and the proposal for ... is presented here as a tentative descriptive scheme for the purpose of reporting and interpreting the results of the study. (AL2: 21)
- Before outlining how this issue was addressed in the two studies of ..., I will begin with an overview of *name of hypothesis*, its predictions for ..., and the existing evidence for the predictions. (LL3: 12)
- After a review of the literature on *phenomenon*, an experiment that addresses these questions will be described. Implications for further *name of research area* research will also be noted. (SSLA5: 55, 56)
- The article presents a brief overview of research to date and the results from a study conducted by the researcher. (MLJ3: 7)
- Initially, after surveying the literature, I contrast ... and .... (AL5: 17)
- As background for the present study, I first examine the claims made for ... and then review the research on *phenomenon*. (LL2: 4)

* This taxonomy is outlined below. (AL3: 29)

- I will describe the differences between ... a little later on. (SSLA1: 4)

APPENDIX IV: THE NOTATION SYSTEM

Variable elements

an everyday situation
aspect of phenomenon
examples of phenomenon
group of
name of hypothesis
name of research area
name of researcher
name of researchers
name of theory
name of variable
name of variables
other phenomenon
phenomena
phenomenon
phenomenon's
researchers of a field
subjects
variable
variables
(citation)
(page number)
(personal communication)
(year)
(year, page number)
quotation

parts added by the author

[*of the phenomenon*]
[the findings]

variable, but obligatory elements

year

ÖZGEÇMİŞ

08.07.1977 tarihinde Bursa'da doğdum. 1983-1988 yılları arasında Bursa Sakarya İlkokulu'nda okudum. 1988-1994 yılları arasında Bursa Hürriyet Lisesi'nde ortaokul ve lise eğitimi aldım. Liseyi 5 üzerinden 3.79 ortalamayla bitirdim. Orta öğrenimim sırasında üç dönem teşekkür belgesi ve dört dönem takdir belgesi almaya hak kazandım. 1996 yılında Uludağ Üniversitesi Eğitim Fakültesi İngiliz Dili Eğitimi ikinci öğretim programına birinci sırada girdim. Bir yıl hazırlık olmak üzere beş yıllık üniversite eğitimimi 2001 yılında tamamladım. Dört yıllık lisans programı boyunca her yıl ikinci öğretim programında %10'a giren öğrenciler arasında yer aldım. Onur belgesi düzenlemesinin yapılmasından itibaren her dönem onur belgesi almaya hak kazandım. 4.00 üzerinden yapılan değerlendirmede 3.22 başarı ortalamasıyla lisans eğitimimi tamamladım. 2002-2003 akademik yılında İngiliz Dili Eğitimi Bilim Dalı'nda yüksek lisans eğitimime başladım.

Nurcan İleri