LONGITUDINAL CHANGES IN THE USE OF PREPOSITIONS AMONG MALAYSIAN UNDERGRADUATES

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ABSTRACT

The concept of multilingualism in second language acquisition (SLA) studies has recently raised the interest of many researchers in the field of SLA. In that, the argument that a need for a change of perspective in the study of SLA is raised. At the same time, the need for longitudinal learner data that could be used for SLA study was made known (Ortega & Brynes, 2008). In response to these, the study reported in this dissertation aims to investigate language development by building a corpus of learner language collected over time. Using the Antconc 3.4.4w (Windows) 2014, the study focused on the use of two prepositions ***of*** and ***to*** in order to analyse language as used by multilinguals. It was found that language development takes place in a non-linear and complex manner (Larsen-Freeman, 2006). At the same time, language users are found to be more focused on meaning making rather than the structure of the language used (Chau, 2015; Larsen-Freeman, 2015). The need for language teachers to acknowledge the bi/multilingual practice in addition to the complexity of language learners in the language classroom should then be highlighted. This may then effect change in the classroom practice as well as the English language education in Malaysia.

ABSTRAK

Konsep multilingualisme kian menarik minat para pengkaji dalam bidang Pemerolehan Bahasa Kedua. Cadangan yang sering dikemukakan dalam konsep tersebut merupakan keperluan bagi perubahan perspektif dalam kajian yang melibatkan Pemerolehan Bahasa Kedua. Pada masa yang sama, keperluan untuk data longitudinal pelajar yang boleh digunapakai dalam kajian Pemerolehan Bahasa kedua juga diketengahkan (Ortega & Brynes, 2008). Sebagai respon bagi isu tersebut, kajian ini bertujuan untuk menyelidik proses perkembangan bahasa dengan pengumpulan korpus bahasa pelajar dalam jangka masa yang panjang. Dengan menggunakan perisian komputer yang sedia ada, Antconc 3.4.4w (Windows) 2014, kajian ini berfokus kepada penggunaan kata tunjuk (***of*** dan ***to***) untuk menganalisis bahasa seperti yang digunapakai oleh penutur multilingual. Kajian ini mendapati bahawa proses perkembangan bahasa berlaku secara tidak seragam dan kompleks (Larsen-Freeman, 2006). Para pengguna bahasa juga telah dikesan untuk lebih berfokus kepada penyampaian maksud dan bukan struktur bahasa yang dipakai (Chau, 2015; Larsen-Freeman, 2015). Dengan itu, guru bahasa disarankan untuk memberi perhatian terhadap kebiasaan multilingual dan sifat kompleks pelajar bahasa dalam kelas bahasa. Ini akan membawa perubahan dalam amalan dalam kelas dan pendidikan bagi Bahasa Inggeris di Malaysia.

Dedication

To those who are patient and kind, and allow me the luxury of time, even when I can't afford it.

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All responsibilities for any flaws that remain in this dissertation rest firmly in the hands of the author.

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CHAPTER 1: INTRODUCTION

1.0 Introduction

The general aim of this study is to investigate learner language development by adopting a multilingual perspective. This allows for a neutral perspective of learner language to be applied to the analysis of language as produced by the participants of the study. Through the analysis of the argumentative writing of a group of Malaysian undergraduates, the study attempts to describe the characteristics of learner language by observing its development over a period of time. Specifically, the investigation focused on how two frequent prepositions (***of*** and ***to***), are used in the corpus.

1.1 Background of the Study

The study of second language acquisition has mainly been about looking at second language learners and how they would develop their understanding and use of the second language. That is, it is the study of how second languages are learned (Gass & Selinker, 2000), in which its main focus is to study the way learners learn and create a new language system. It is also the pursuit of the underlying reasons for the result of second language acquisition by uncovering the acquisition process of second language learning.

The acquisition process of second language learning however, is not readily observable and it could only be done by examining samples of the learners' performance (Ellis, 2008). This may include analysing samples of second language utterances produced by second language learners. These utterances may also be generally referred to as learner language. According to Ellis (2008), learner language

can provide the researcher with insights into the process of acquisition. In other words, it is also the most important source of information about how learners learn an L2.

A series of SLA study has established a norm in second language study in which target languages are prized as the higher linguistic status as compared to the learner language. However, it has been argued that the learner language is equally as important as the target language norm. Corder (1967) highlights the importance of looking at errors in learner language as the evidence of language learning; it also provides evidence of the system of language that a learner is using at a particular point of language learning. It somewhat relates to the notion of interlanguage as introduced by Selinker (1972) in which learner language is defined as a separate linguistic system where both the system of the first and second language occur.

Klein (1998) refers to this established norm in the second language acquisition studies as the Target Deviation Perspective. This view is made up of the belief that there is a well-defined target of the acquisition process and that language learners may miss this target at different levels. This gives the teachers' role as to erase or minimize this deviation and researchers to investigate these "errors" and the reason behind them. At the same time, Klein (1998) also argues that in order to move forward in the study of human language capacity, this norm should be changed and that learner varieties should be seen as independent in their own right, and deviations from the target language norm is just a normal manifestation of the human language capacity. This then highlights the need of a changed perspective in the study of second language acquisition.

According to Pica (2011), the consistent theme throughout SLA studies has been the need for longitudinal data. It is also believed by many researchers that longitudinal findings can uniquely bolster what we know of the language acquisition process (Ortega & Brynes, 2008). However, even though the need for longitudinal studies has been

articulated, there are still few systematic efforts made to support and foment longitudinal teaching and learning (Ortega & Brynes, 2008). The reason to this is unknown, although it could also be acquitted largely due to methodological difficulties.

With more advanced computer technology, an increase in the possibility of storing longitudinal learner corpora may be achieved. At the same time, the rise of corpus linguistics in the study of language gave way to the employment of new methods that can be used in the study of second language acquisition. Development of computer software that could assist in the analysis of the corpus data could introduce different perspective in which learner language could be observed. Chau (2012) discussed a corpus study which aims to illustrate how a corpus approach to exploring learner language can reveal interesting observations about the dynamic process of L2 use and development. The findings from the corpus study have then reflected a fundamental L2 processes taking place as the learner's language develops.

1.2 Statement of the Problem

The goal of SLA study is to gain understanding of how a second language is learned. This is done through research in SLA which aims to discover the principles according to which people who have a language in their mind acquire another language (Klein, 1998). The insights obtained from SLA studies were hoped to provide better understanding of human language faculty and also the ways in which a second language is learned. This caused the established perspective of the SLA studies to be more readily accepted; this is common due to it being the natural perspective of a language teacher and also of those who had to learn a second language in a classroom (Klein, 1998). However, despite the interesting pursuit of investigating errors and deviations, Klein (1998) also questions the proper contribution of the studies to the field of SLA and he

relates this to the target deviation perspective that is adopted by many of the researchers in the field of second language acquisition.

The problem with the established norm in the SLA studies had also been addressed by Bley-Vroman's (1983) comparative fallacy where it was argued that linguistic description of learners' language can be seriously hindered or side-tracked by a concern with the target language. By comparing the learner language structure against the structure of any other language, much of the unique characteristics of the learner language might be overshadowed by the more distinguished structure of the more prevalent language.

Ortega (2003) states that a deficit approach to studying bilingualism is a liability that limits the full potential of what SLA studies could offer. Thus, she advocates for a working hypothesis that takes human language faculty as bi/multilingual (having two or more language in mind) by default. In doing so, it may lead to more prevalent findings from SLA studies that may contribute to transdisciplinary studies. Therefore, the aim of this study is to investigate language development through a bi/multilingual perspective by building a corpus of learner language collected over time.

1.3 Purpose of the Study

The study aimed to investigate the development of learner language over time by focusing on the two highest frequency prepositions identified in the corpus. The main objectives of this study are:

1. To develop a longitudinal corpus of learner language produced by Malaysian undergraduates.

2. To study the changes in the patterns of use of prepositions among Malaysian undergraduates.

The study used a time-series design in which the same task was given repeatedly as a prompt to elicit writing from the participants at three points of time over the course of six weeks. According to Larsen-Freeman (2006), a time-series design is essential to capture a dynamical description of the learner language. Longitudinal data would then be obtained by using a time-series design in the study.

1.4 Research Questions

The study is guided by the following research questions:

1. What are the two most frequent prepositions found in the argumentative writing of Malaysian undergraduates at Time 1 of CATMU?
2. How does the use of the two prepositions change over time in CATMU?
3. As far as the meaning is concerned, what are the changes to be observed in phrases with which the prepositions occur?
4. How could the changes observed be explained in terms of language development?

The first research question concerns the frequency of the words found in the corpus. In order to answer this research question, the corpus was run through the concordancing software, Antconc, developed by Laurence Anthony (2005), to obtain the frequency details of the corpus used in the study. From the frequency details obtained through the analysis, the two most frequent prepositions used is identified.

The second research question looks at how the prepositions identified are used in the corpus. That is, the patterns of use of the two highest frequency prepositions were identified. The words concurrent to the prepositions are analysed and placed in corresponding word groups and the patterns in which the two prepositions occur in are identified. The patterns of use of the prepositions are then analysed internally against each time in order to describe the changes in the frequency of the patterns of use of the prepositions over time.

The third research question focuses on the different senses of the two prepositions found in the corpus. In order to identify this, three different dictionaries were used to classify the senses of the two prepositions found in the corpus. The observations are then cross analysed internally in order to obtain a description of the changes in the use of the prepositions over time. At the same time, the words concurrent to the prepositions are classified into meaning groups in order to observe the changes in the type of words being used with the prepositions by the participants in the corpus.

Last but not least, the fourth research question attempts to discuss the changes found through the analysis of the patterns of use, the senses and the words concurrent to the prepositions. It attempts to understand the naturalistic process of the human language development by interpreting the changes observed in the findings of the study as part of the second language acquisition process. Thus, it attempts to make clear of the meaning of any of the changes observed in the analysis of corpus study done for the prepositions.

1.5 Significance of the Study

The study is designed to address the issue of the lack of longitudinal study in the field of SLA; hence the design of the study which takes place over a six weeks' period with multiple data collection every two weeks. A period of six weeks can be considered

as a short period of time for a longitudinal study; however, the data obtained from the study will still be able to provide insight into the process of second language development. At the same time, according to the definition of longitudinal study offered in Brynes and Ortega (2008), the study had satisfied the criteria of a longitudinal study which is a combination of length of the study done, the presence of multi-wave (repeated collection of data among the same population sample) data collection and the conceptual focus on capturing change by design.

The study also analyses the corpus collected from a multilingual perspective instead of a deficit point of view. That is, the study attempts to make sense of language development that takes place over time without placing the learner language as a more deficit form of language by comparing it to another language. Instead, the study involves internal comparison of the linguistic data obtained over time. This allows for a dynamical description of language data (Larsen-Freeman, 2006) and also captures the process of L2 learning (Chau, 2012).

Last but not least, prepositions were chosen as the items of analysis in the study due to the vast distribution of prepositions in English language. Prepositions are categorized as grammar words in the English language and are found to be used at a high frequency in English language. Due to its high frequency, the possibility of accounting for greater amount of a corpus data could be achieved (see also Groom, 2010). Having the property of grammatical function, prepositions are seldom being analysed semantically. However, the possibility that second language users may use prepositions differently according to their communicative needs makes a case for its focus in the study. At the same time, prepositions may also act as meaning classifier to the co-occurring words by grouping them into sets of meaning (Hunston, 2006). This will allow for a different perspective of language analysis to be done and also the possibility of analysing more of the corpus data in the study.

1.6 Scope and Limitations

The study looks at the language development of 103 undergraduates who, at the time of the study, are enrolled in an English proficiency course in a public university in Malaysia. It involves a total of six weeks of data collection. Altogether, the study has collected a total of 309 argumentative essays and also a total of 121, 861 words in the corpus. The study also focused on analysing the two highest frequency prepositions identified in the corpus.

CHAPTER 2: LITERATURE REVIEW

2.0 Introduction

This chapter presents a review of literature that is related to the study reported in the dissertation. First, the status of learner language is discussed in this chapter; this is then followed by a discussion of the possibility of adopting a multilingual and dynamic perspective on learner language and also different ways of looking at language. Next, insights on the development of learner corpora in applied linguistic are discussed which is then followed by a few examples of how learner corpora are used in language acquisition studies. A few examples of corpus studies of prepositions are then discussed which is followed by a conclusion.

2.1 Learner Language in Applied Linguistics

Studies on learner language have much been incorporated with analysing the errors made by learners. Corder (1967) argued of the importance of looking at learners' errors in which it is said to be an indicator of learners' development pattern and would be able to inform teachers on the stage of learner language a learner is in. As such, learners' ability to match the target language when producing utterances is taken into account and analysed in order to bring about a description of learner language.

Selinker (1972) coined the term interlanguage to define learner language as a separate linguistic system which contains the linguistic structures of both the learners' L1 and the target language. In turn, studies are carried out to investigate the evidence of the structures of L1 and L2 in the learner language. Again, despite being seen as a separate linguistic system, as per defined in interlanguage, learner language is being studied in comparison to either the target language or the learners' L1 structure.

The problem with comparing learner language to any other language is that much of the uniqueness of learner language might be overshadowed by the more prevalent structure of the more distinguished language (L1 or target language) (Klein, 1998). Bley-Vroman (1983) argues of a comparative fallacy in the research of second language acquisition which brings attention to the problem of taking the idealized competence of native speakers as a benchmark to investigate linguistic development (Ortega, 2014). However, Ortega (2003) noted that even though Bley-Vroman (1983) had made a recommendation to SLA researchers to study learner language in its own right, he did not offer any other kind of solution to the problem of comparison.

Cook (1999) questions the need to compare learner language with the target language norm when learner language is defined as a "separate linguistic system" (Cook, 2008). There seems to be a bias where the native speakers' norm is being valued as a superior form of language competence. This gives rise to the ideological root of monolingual bias. This arises from the assumption that monolingualism is the default for human communication (Ortega, 2014). In the end, the results of SLA studies were not able to make a wider contribution to linguistic studies (Klein, 1998; Ortega, 2003).

Ortega (2003) had recently given a call for a shift in SLA studies in which she advocates for investigation for a working hypothesis that takes the human language faculty as bi/multilingual by default. In line with the target deviation perspective posed by Klein (1998), Ortega (2003) states that by shifting the perspective of SLA studies, a more prevalent finding from SLA studies could arise and may contribute to transdisiciplinary studies.

2.2 Adopting a Multilingual and Dynamic Perspective on Learner Language

For a long time, the view on language in mainstream SLA studies is usually towards a static view of language. This leads to the assumption that there exists a fixed well defined target of the acquisition process (Klein, 1998). The utterances produced by a language learner are then considered as more or less the successful attempts of the learner to reach the target, thus casting language learners as deficient in their linguistic ability. One of the tenets of multicompetence is that a multilingual is different from a monolingual (Cook, 1992, 2013); this questions the validity of comparing the utterances produced by a second language user to that of a monolingual native speaker. Cook (1992) argues that, at best, L2 users should be compared to a fluent bilingual, not a monolingual.

A bi/multilingual is then evidently different from a monolingual in terms of their accumulated knowledge of language and their abilities to use language. Grosjean (2012) argues that bilinguals (and also multilinguals) are not made up of the addition of two monolinguals but rather possess a different kind of linguistic configuration. The concept of translanguaging by Garcia (2009) is used to refer to the act of accessing different linguistic features or various modes of autonomous languages to maximize communicative potential that is often used by bilinguals. It is different from code-switching due to its rooted principle that bilingual speakers make use of their linguistic repertoires by selecting language features and assemble their language practices in a way that will suit their communicative needs (Garcia, 2014). This leads to language users/learners changing their language each time it is used in order to achieve effective communication. A multilingual perspective in SLA studies invites a shift on the view of language thus affecting the way in which language learning is described. Thus, by viewing language as a complex and dynamic system, it would suggest that language learning process may also be equally as complex.

The view of language as a dynamic system can be informed through the complexity theory perspective (Larsen-Freeman, 1997). Complexity theory is mainly about change (Larsen-Freeman, 2011). Just like any other complex system, language organizes itself from the bottom up and is sensitive to use (Larsen-Freeman, 2006). This casts a new light on language in a few ways; the first is that there is no well-defined structure of language. This is due to the ever-changing nature of language as it is being used. The second is that, it denies the assumption that there is a fixed target to aim at when it comes to language learning (see also, Klein, 1998). Thus, language learning is not about acquiring a set of language rules but rather the emergence of language abilities through repeated use in real time (Larsen-Freeman, 2015).

Since language is a complex and dynamic system, therefore, the language learning process may be as complex and dynamic as language itself. It is then reasonable to assume that there is no point of time in any stages of development that language is static (Larsen-Freeman, 2006). It may also be observable at some point that there are features of the language which are more dominant at a certain point of time; however, these features are rarely fixed. Since language is forever being used every day, and that the nature of language changes from repeated use, therefore language can never be invariant but continues to change.

It can also be assumed that language learners play an active role in language development. This happens when learners interact with the knowledge of a new language and incorporate them into their existing knowledge of language which in turn invents a new system of its own (Cook, 2008). This, in target deviation perspective, leads to deviation from target language norms that are more often than not being described as errors or mistakes. These "errors" are important as it is the evidence of a definite system of language being used as a person tries to learn a new language (Corder, 1967). This separate system of language is also being defined as interlanguage

by Selinker (1972) which is unique and special in its own way and will never match the ideal type (Larsen-Freeman, 2011). This is due to the fact that language is dynamic and changes according to a user's communicative needs and experience.

A complex and dynamic view of language and language learning may account for the fluctuating changes observable in learners' performance. Language development in this view then is not discrete and stage-like, but rather involves the increase and decrease of language patterns (Larsen-Freeman, 2006) as language users continue to use the language as their communicative and language experience changes.

2.3 Different ways to view language

There are two ways of looking at language according to Sinclair (1991), in which it can be viewed through the open-choice and idiom principle. Both can be described as a means of explaining language (Hunston & Francis, 2000). The open-choice principle, as described by Sinclair (1991), is the way of seeing language as a result of a series of complex choices. It takes language as a series of individual items (Hunston & Francis, 2000). In other words, it is the interpretation of the meaning of a language through a series of individual words.

The idiom principle on the other hand, sees meaning as being made through chunks of words (Sinclair, 1991; see also Hunston & Francis, 2000). It is when a language user has a number of semi-preconstructed phrases that could be taken as single choices even when it can be analysed into segments (Sinclair, 1991). The senses of the meaning of words exists are identified by the sequences of morphemes that they normally occur with (Hunston & Francis, 2000). In other words, the idiom principle states that the meaning of a word is derived from the group of words it comes together with.

One of the most important observations that can be made in corpus driven description of English is that patterns and meanings are connected (Hunston & Francis, 2000). The introduction of pattern grammar approach by Hunston and Francis (2000) is based on a few principles. First, the approach is based on phraseology, as observed in large corpora; this will require the manipulation of concordancing software in order to be observed. Second, it avoids the distinction between lexis and grammar. Last but not least, it allows the application of theories into the practice of language teaching; it provides a more satisfactory way of how English language could be described by articulation of collocation and colligation of words using corpus evidence (Hunston, 2002).

2.4 Development of Learner Corpora

Sinclair (1991) defined corpus as a collection of naturally occurring language text, chosen to characterize a state or variety of a language. Corpus can also be defined as a collection of linguistic data, either written or spoken that can be used in linguistic studies (Crystal, 1991). McEnery, Xiao and Tono (2006) defined corpus as machine readable authentic texts, which are sample to represent a particular language variety. Therefore, it could be said that a corpus is usually in a machine-readable form that represents a type of language variety that is used as data for studies in linguistic. A computer learner corpus is a collection of authentic texts produced by foreign language and second language learners in electronic form (Granger, 2003). In other words, it is a collection of learner language in machine readable form that could be used for research.

One prominent example of a learner corpus is the International Corpus of Learner English (ICLE) developed by Granger (1990) (as cited in, Granger 2003). The ICLE is a collection of English writings of L2 learners of English, compiled with the purpose of

comparison with a specific L1 background (McEnery & Hardie, 2012). Examples of learner corpora that are known in Malaysia are the EMAS corpus (Samad, et.al., 2002, as cited in Samad, 2004), which is a collection of written and spoken data of over 800 students from three different age groups from selected primary and secondary schools, and the CALES corpus (Botley, et. al., 2005, as cited in Botley & Dillah, 2007), which focuses on the argumentative writings of undergraduate students from Borneo campuses taking English proficiency courses. Last but not least, another example of a learner corpus compiled in Malaysia is the Longitudinal Corpus of Languaculturer Narrative Texts (LoCLaNT) (Chau, 2015). It is a longitudinal corpus which consists of narrative texts by 124 secondary students and collected over a 24-month period. The longitudinal characteristics of LoCLaNT is what makes it different from both the EMAS corpus (Samad, et. al., 2002) and the CALES corpus (Botley, et. al., 2005).

Learner corpora are important for interlanguage studies (Ishikawa, 2011). Much of the work with learner corpora include Contrastive Interlanguage Hypothesis, which include a comparison between learner data and native speaker's data or different types of learner data (Granger, 2003). Learner corpora are also significant for foreign language teaching (Ishikawa, 2011). Another type of analysis that is normally done with learner corpora is the computer aided error analysis, which is done by tagging the errors found in learner corpus data (Granger, 2003). Identification of learners' typical errors, overused, and underused pattern could be found from this type of analysis (Ishikawa, 2011).

2.5 Learner Corpora and Language Acquisition Studies

A few studies have been done with learner corpora that exploit the use of technology in terms of analysing and categorizing data. One of the examples of studies done with

learner corpora is the study by Vyatkina and Belz (2006) that examined the emergence of the comprehension and use of modal practices in German by college level American learners of German as a foreign language. The study analysed the Telecollaborative Learner Corpus of English and German (Telekorp) which contains complete records of bilingual intercultural exchanges of 200 learners who participated in German-American telecollaborative partnerships over a six-years period. The study found that it is necessary to explicitly teach the German modal practices; this is due to the lack of feedback from native speakers regarding the use of modal practices to the learners.

The next study to be discussed is a study by Bestgen and Granger (2014) which looks at the development of phraseological competence in L2 English writing. The main objective of this study is to establish whether phraseological competence in L2 develops over time; in which the study's main concern is towards L2 writing development. The study uses the Michigan State University Corpus of ESL Writing which contains 171 essays by 57 learners of English. Using both longitudinal and cross-sectional approach in the study, it was found that phraseology does play a role in the development of L2 writing.

What can be found from learner corpus studies depends on the way it is analysed. Other than analysing learner corpus data with that of native speakers' data, or focusing on the errors found in learner corpus, a different way of analysis could be done to analyse learner corpus. A sample study by Chau (2012) demonstrated a different approach to analysing learner corpus data. The study investigated the development of phraseological competence and looked at how regular patterns of L2 use developed from word combination as learners' proficiency level increases. The learner corpora used in the study was analysed internally against different proficiency level and found a flow of learners' development pattern that could show the fundamental L2 processes as restructuring take place. Another study by Chau (2015) explored the possibility of

focusing on a function word (*that*) when analysing learner language. One of the findings from the analysis of the study is the emergence of a greater range of verb types found in the corpus used. This shows that language users (or ELU as described in Chau (2015)) change their language use over time.

When taking the perspective of SLA which honours the independence of learner language, a different approach to analysing learner corpus data might be needed. The issue now is to find a suitable data to compare with the learners' data. With the use of learner corpus of longitudinal nature, an approach of comparing the corpus internally could be done which may then uncover the nature and process of L2 learning (Chau, 2012).

2.6 Corpus Studies on Prepositions

Most studies on prepositions focused on the errors in the use of prepositions found in learner language. One such study is by Yousefi, Soori, and Janfaza (2014) surveying the cause of errors in the use of prepositions by Iranian students. It is found that the errors made are caused by interference from Farsi. Another corpus based study on prepositions by Groom (2010) demonstrated how prepositions can be analysed for sets of meaning. The study was done on HistArt, a corpus of journal articles for history. Analysis of the prepositions found that different patterns of prepositions could carry different sets of meaning. This would be able to show the preferred meaning of a specialized discourse.

Using various learner corpora compiled locally, a few studies have been made. One example is a study by Arjan, Abdullah, and Roslim (2013) which identified the errors in the use of prepositions of place, ***in*** and ***on*** among three different academic levels by looking at the frequency of errors. It found that the subjects face some challenges in

using the prepositions of place in the argumentative writing. Another study by Loke, Ali, and Anthony (2013) focused on the prepositions of time ***on*** and ***at*** in argumentative essays by form 4 and form 5 students also identified the difficulties faced by students in handling the prepositions of time ***on*** and ***at*** in their writing. Finally, Mukundan and Roslim (2009) looks at textbook representation of prepositions in comparison with the British National Corpus (BNC) and found that there is a difference between the textbook corpus and the BNC in terms of the frequency of the prepositions.

2.7 Conclusion

Other than the study by Groom (2010), the corpus studies on prepositions are mainly focused on the errors in the use of prepositions. The studies mainly focused on error frequency made by second language learners, which most certainly leads to the conclusion that second language learners have some troubles when it comes to using the prepositions in the English language. A change in the perspective taken while analysing language use by a multilingual may provide an interesting shift in the analysis of the use of prepositions. Much like Groom (2010) who studied the language of a specialized discourse, the same approach could be used while analysing language as used by a multilingual. In the study reported in this dissertation, prepositions are used as a lens to analyse the way language is used by a multilingual. Efforts were made in order to place second language users outside of the deficit light thus analysing language use as it is.

CHAPTER 3: METHODS

3.0 Introduction

The objective of this study, as noted in Chapter 1, is to investigate language development by building a corpus of learner language produced by Malaysian undergraduates over time. In order to achieve this, the study is guided by the following research questions:

1. What are the two most frequent prepositions found at Time 1 of CATMU?
2. How does the use of the two prepositions change over time in CATMU?
3. As far as meaning is concerned, what are the changes to be observed in phrases with which the prepositions occur?
4. How could the changes observed be explained in terms of language development?

This chapter then presents the methodologies used in the study reported. Firstly, the descriptions of the participants as well as a brief overview of the English proficiency course taken by the participants are discussed. This is then followed by a discussion of the corpus used the study, CATMU. Last but not least the procedures used in this study are presented, whereby both the data collection procedures and analytical procedures are discussed.

3.1 Participants

A total of 103 students contributed to the corpus compiled in the study. The initial number of participants was 114 students. However, the study experienced attrition over time which results in the current number of participants reported. The participants' age ranges from 20 – 25 years old. At the time of data collection, all of the participants were

in their second year of tertiary study (semester 3 and semester 4). The participants were all students of the same public university in Malaysia and were enrolled in an English Proficiency course provided by the university at the time of data collection.

Among the 103 students, 78 are females and 25 are males. Most of the participants reported the Malay language as their mother tongue. A small group of the participants reported Mandarin and Tamil as their mother tongue, while only one participant reported the Dusun language as the mother tongue. Participants' exposure to English language differs according to their age. However, all of them reported to have studied English since kindergarten until the time of data collection. Most of the participants reported to use English only a few times a week, and some of them reported to use English only when it is necessary (i.e., in class). However, only one participant reported to use English every day.

The participants were from three different English Proficiency classes; although coming from different classes, each of the class used the same module and was taught by the researcher. All of the participants came from different courses like Accounting, Agricultural Science, Animation Design and Advertising Design course, to name a few. In addition to that, the participants also came from different parts of Malaysia with those from West Malaysia (e.g. Selangor, Johor, Negeri Sembilan, Kedah, etc.) being the majority while the rest came from East Malaysia (Sabah and Sarawak).

3.1.1 English Proficiency 3

The English Proficiency course that the participants were enrolled in during the time of data collection is the third module of a four part English Proficiency course (henceforth, EP3). Prior to EP3, the participants have also attended two English Proficiency courses, which is the first and second module of the four parts English

course (EP1 and EP2). The EP3 caters to the needs of students from the intermediate to upper-intermediate levels of proficiency. This is equivalent to the MUET standard of Band 3. It is mainly designed to help develop students' ability to construct various sentence structures with the use of suitable phrases and clauses. The EP3 module does not focus mainly on the grammatical properties of the English language; however, they were briefly revisited in the first and second chapters of the EP3 module. Instead, the module emphasizes on assisting students in formal, academic writing, in which students were presented with various exercises on report and argumentative writing as well as examples.

3.2 The Corpus

The corpus used in this study is a collection of texts compiled longitudinally over a six weeks' period. The **C**orpus of **A**rgumentative **T**exts by **M**alaysian **U**ndergraduates (henceforth, CATMU) will be discussed in the next section.

3.2.1 CATMU

CATMU is a longitudinal corpus which consists of texts written by 103 participants over a six weeks' period and is developed by the researcher. The data were collected at three different points in time, starting from October 2015 to December 2015.

The corpus consists of 309 texts or 121, 861 words in total. The text is coded according to the class, participants, and the time of study. CATMU is divided into three parts (Time 1, Time 2 and Time 3) which corresponds to the different points of data collection. Time 1 is the first data collection which is October 2015, Time 2, the second

data collection was in November 2015 and Time 3, the third data collection was in December 2015.

There were three different classes (B, C, and G) that correspond to the EP3 groups the participants were in during the time of data collection. The coding range is 001-114, which reflects the initial number of students (114) who participated in the research. The coding system also includes the lowercase 'a', 'b' and 'c' to indicate the three different points of data collection. For example, B001a, C057a and G112a, refer to texts from three different participants and classes and were collected at Time 1. B001b and B001c, refer to two texts produced by the same student collected at different points of data collection, with 'b' indicating Time 2 and 'c' indicating Time 3.

The frequency information of CATMU is provided in table 3.1 below:

Table 3.1: General frequency information of CATMU

Time 1 **Total words:** 35505 **Average words:** 345			**Time 2** **Total words:** 43734 **Average words:** 424			**Time 3** **Total words:** 42638 **Average words:** 414		
Rank	**Freq.**	**Word**	**Rank**	**Freq.**	**Word**	**Rank**	**Freq.**	**Word**
1	2117	the	1	2494	the	1	2556	the
2	1386	***to***	2	1614	***to***	2	1712	***to***
3	1350	internet	3	1531	internet	3	1572	internet
4	765	and	4	1050	and	4	1025	and
5	730	students	5	780	students	5	807	students
6	626	a	6	771	***of***	6	747	their
7	618	can	7	751	they	7	721	they
8	618	***of***	8	737	their	8	696	is
9	589	***in***	9	729	***in***	9	691	can
10	576	is	10	705	can	10	679	***of***

As can be seen in Table 3.1, the two most frequent prepositions are the prepositions ***of*** and ***to***. Therefore, these two prepositions will be the central focus of the study.

3.3 Procedures

The study applies a longitudinal design in which data was collected over time. Ortega and Iberri-Shea (2005) argued for a flexible definition of longitudinal study which involves more than just the length of the study but together in consideration with three other criteria. This includes the presence of a multi-wave data collection and a conceptual focus on capturing change by design (as cited in Ortega and Brynes, 2008). Although the study only contains six weeks of longitudinal data, it is still considered valuable to study due to the lack of longitudinal data in the field of SLA study. No matter the duration of a longitudinal study, Ortega and Brynes (2008) argue that insights are needed into an extended course of second language development.

Hunston (2002) differentiates between two approaches in corpus linguistics, word-based approach and category based approach. The word-based approach takes a node word and searches it through concordancing software. The analysis of the corpus is then done through the presentation of the corpus data manipulated using concordancing program. The category-based approach is when the data is approached using existing categories of speech. An annotated and tagged corpus is used in the category-based approach in comparison with the word-based approach which preferred the use of a plain text corpus.

The selection of an approach to be used in corpus studies depend on the on the aims and the research questions that need to be answered in the study (Hunston, 2002). In accordance to that, the study used a word-based approach in order to analyse the data in the study. The top two prepositions were used as the node word in the concordance analysis of the corpus to obtain answers to the proposed research questions.

3.3.1 Data Collection Procedures

The compilation of CATMU is based on the first aim of the study which is to develop a longitudinal corpus of learner language produced by Malaysian undergraduates. Thus, CATMU was compiled over a period of six weeks with the contributors from a public university as mentioned above.

An argumentative writing task was used as the prompt to elicit data from the participants in the study. This is similar to two other different corpora, ICLE (Granger, 1990) and CALES (Botley, et. al., 2005) as reviewed earlier in Chapter 2, which also consist of argumentative writing by late language users. The writing task was taken from the EP3 module used by the participants in their class. The task was completed in the class within an hour, as suggested in MUET extended writing section. The task required the students to discuss the benefits and disadvantages of internet to students in the form of an argumentative essay of more than 300 words. A sample of the prompt used in this study is provided in Appendix A.

Prior to eliciting data, the participants were asked to fill in a consent form for ethical measures. They were also required to answer a short questionnaire on demography so that the general description of the participants can be obtained. The samples of both of the documents mentioned are provided in Appendix B and Appendix C respectively. Once the texts were collected, they were immediately keyboarded into Microsoft Word. The keyboarded texts were then reviewed by an independent reader to ensure that everything that was transferred into the computer is similar to the original texts written by the students. The file was then saved in a .txt format so that it could be run through the concordancing software used in the study.

A sample text from the corpus, by participant B001a, is shown below:

In era globalisation nowadays, many of technology was come true. For examples is internet. Every people must know what is interest and what for internet was created. Everybody now can access it at everywhere by smartphone, tabs and other gadget. Inn here internet will bring a good and bad effect.

First and formost, he benefit for using the internet for student is, they can do some exercises or online quiz to improve their study. Besides that, they also can do an assignment, for examples search an article of journal. Student can do online business to get income and do a online shopping. After that, student can get many information from the internet. For examples they can read some article, find a reading material to get more information. Not only just studying in class.

Although, internet have a benefit but it still have a bad effect or disadvantage that can bring more harm to students. The disadvantage for using internet are if students play an online game in the internet, that would waste their time. In many experience, some people who played the online game finish half of his day to play it. Usually they play in cyber cafe with their friend. This attitude is not good. Students will not finish their assignment and homework. They don't have time study and now they can be an excellent student in future.

Besides that, in the internet it also have a media social such as facebook, whatsapps, instagrams and many more. For this media social it have a good and bad effect. The good thing is the student can get an information about current issues, they can do a discussion with their friends. Furthermore, its the easy way to ask a lecturer if students don't understand for the certain part. Student does not hardly come to the lecturer office to ask a small question.

However, the bad thing in media social is student spend many time to check their account like facebook for example. In their, their are many of some news, an entertainment like story of artist. Student nowadays like to follow story of artist, the thing that waste their time than a another good information. It is because why student nowadays don't know about what has happen in this country. They only happy with their youth life.

With the internet also, student can seperate the news very fastly, either they know it is true story or information or not. They easily seperate the faeke news. Other than that is sometimes students post something which not suitable in their account social media. It will make the students name bad. No want will friend with his.

Furthermore, information was harm for students. Like privacy of their account. Some people who are clever will hack thier account. Other that that, using internet if not controlled, student can access a bad thing like piano video. It is not good to our culture. Bullies in media social also can happen. It will make a students fell afraid to go to class, to online then account anymore and so one.

In a nut shells, internet if not controlled will make a student lost and damage our country. So that many of party should do their part to controlled this harm thing.

(B001a)

The same task was used at every point of data collection. Following Larsen-Freeman (2006) and Chau (2015), a repeated task design was adopted in this study. As Larsen-Freeman (2006) argued, even a small change in task design could lead to differences in results.

3.3.2 Analytical Procedures

As noted in Chapter 2, there are different ways of looking at language. The identification of the patterns of use of prepositions in this study comes through a phraseological point of view. It aligns with the idiom principle (Sinclair, 1991) which sees a meaning of a word as being derived from its neighbouring words. Through the observation that pattern and meaning are connected (Hunston & Francis, 2000), the identification of the words class and meaning for each pattern is done by looking at the concurrent words.

In order to analyse the patterns of use of the selected prepositions (***of*** and ***to***), the concordance software Antconc 3.3.4w (Windows) 2014 is used. Antconc is a free concordancing software developed by Laurence Anthony which can be run through multiple platforms. It can be used for corpus linguistic research due to its abundance of tools available for use within the software which includes the concordance tool, one of which was highly used in the study, concordance plot tool, file view tool, clusters/N-grams tool, collocates tool, word list tool and keyword list tool. Most of the tools have been used in this study to navigate through the corpus as well as to obtain the frequency information needed for the analysis of the corpus.

The concordance tool shows search result in a KWIC format. This will allow words and phrases which are commonly used in a corpus of texts to be observed. This tool is mainly used in the identification of the patterns of use of the prepositions. The

concordance plot tool shows search result plotted as a 'barcode' format and allows easier navigation of the position of the search target in the corpus. The file view tool shows the text of individual files. This also allows for easier identification of the search target in a corpus. The collocates tool shows the words that collocates with the search target. Last but not least, the word list tool lists down the words frequency in the corpus and presents it in an ordered list. This helps in identifying most frequently used words in the corpus.

The patterns identified are labelled according to the system introduced in the second edition of Collins Cobuild English Dictionary (CCED) (1995) as cited in Hunston and Francis (1999). Classification of word class for a learner corpus can be tricky; therefore a few criteria were set in order for systemic classification of word class and patterns. The criteria set are as follows:

1. The word class of a word is first referred to in the dictionary.
2. In the case of words being classified into more than one-word class, the whole phrase is read in order to identify which word class it belongs to. (as in the case of the word *to*, where *to* can be an infinitive as in e.g., wanted *to* know. Or a preposition as in e.g., went *to* the window.)
3. A word is considered as a noun group (**n**) if it is preceded by a determiner. (e.g., the using ***of*** internet, the important***of*** internet)
4. A sequence is considered as a noun when the whole sequence is used to refer to a specific action. (e.g., using of internet***to*** students)
5. A sequence is considered a pattern only when:
    a. A sequence appeared more than once in the whole corpus and used by two different participants (Chau, 2015)
    b. The words involved in the sequence all contribute to the meaning of the whole phrase

In order to identify the senses of the two most frequent prepositions in CATMU, three dictionaries were used as a guide. The first dictionary is the Oxford Advanced Learner's Dictionary, International Student's Edition, 9th edition, 2015, published by the Oxford University Press. The second dictionary is the Collins Cobuild Advanced Learner's Dictionary, 8th edition, published by HarperCollins Publishers in 2014. Last but not least is the Macmillan English Dictionary International Student Edition for Advanced Learners, 2nd edition, published by Macmillan in 2007. For each pattern, the assignment of the senses of the prepositions was repeated three times.

This is a quantitative study in which numerical data was obtained by using computer software (Antconc) and then analysed in order to answer the research questions. To answer RQ1, the word list tool in Antconc was used. By running the corpus through the software via the word list tool, the general frequency information of CATMU could be obtained (Table 3.1). As for RQ2, the concordancing tool in Antconc was used in order to identify the patterns of use of both the prepositions (***of*** and ***to***) over time (Time 1 – Time 3). The results were then analysed internally over time to identify the changes in the use of the prepositions over time. In order to answer RQ3, the senses of the prepositions used in CATMU were first identified for each time and the results were then analysed internally. Finally, in order to answer RQ4, the changing trends in both the patterns of use and senses of the two prepositions were accumulated. These results were then analysed in relation to language development in order to answer the research question.

3.4 Conclusion

This chapter has discussed all the procedures and steps that had been taken in this study. The next two chapters will present the corpus analysis of the two selected high frequency prepositions, ***of*** and ***to***. The two prepositions are analysed in terms of their patterns of use, fixed phrases, senses and the concurrent words.

CHAPTER 4: A CORPUS STUDY: THE WORD *Of*

4.0 Introduction

This chapter focuses on the analysis of the word ***of*** found in CATMU. The chapter first presents the frequency information of ***of*** and the changes observed from Time 1 to Time 3. It then presents different patterns of use of ***of*** identified in CATMU. This includes the frequency information of the different patterns of use of ***of*** and the changes observed over time. This is followed by a discussion of the senses of ***of*** found with each pattern. Next, the use of ***of*** in phrases is discussed; the discussion will be mainly on the three dominant use of ***of*** in phrase. Lastly, the observation of the changes in the range of concurrent words found with the word ***of***is presented which is then followed by the conclusion.

4.1 Frequency information of *of*

The number of ***of*** found in the corpus at Time 1 is 618, which is 1.74% of the corpus. It increases to 770 and occupies 1.76% of the corpus. The number then decreases to 678 at Time 3 with1.59% of the corpus at Time 3. Table 4.1 summarizes the frequency information of ***of*** found in CATMU over time.

Table 4.1: Frequency information of *of* in CATMU

Time	Frequency	%
Time 1	618	1.74
Time 2	771	1.76
Time 3	679	1.59

From Table 4.1 above, it can be seen that the word ***of*** is found to be of the highest percentage at Time 2 of CATMU. This is expected when referring to Table 3.1 in Chapter 3 in which it can be seen that the ranking for the word ***of*** increased from the 8th

at Time 1 to the 6th at Time 2. At Time 1, the word ***of*** occupies 1.74% of CATMU, however, it increases to 1.76% at Time 2, and later decreases to 1.59% at Time 3. Therefore, it can be said that, although there is an increase in the percentage of the word ***of*** at Time 2, over time the use of the word ***of*** in CATMU decreases, as can be seen in when comparing the percentage of the word ***of*** at Time 1 and Time 3. The increase in the percentage shows an increase in the use of the word ***of*** in CATMU at Time 2. The percentage of use of the word ***of*** is at its lowest at Time 3. This shows that over time, the use of the word ***of*** in CATMU decreases at Time 3.

4.2 Patterns of use of *of* in CATMU

In order to obtain the patterns of use of ***of***, the words found concurrently to the word ***of*** were categorized into word classes. The analysis of the word ***of*** found that it can occur in several different patterns. Table 4.2 shows the distribution of the patterns of ***of*** found in CATMU over time.

Table 4.2: Frequency of the patterns of use of *of* in CATMU

Patterns	Time 1		Time 2		Time 3	
	freq.	%	freq.	%	freq.	%
n *of* n	315	50.98	412	53.43	344	50.66
pron *of* n	105	16.99	143	18.55	135	19.88
n *of* ing	16	2.59	11	1.43	24	3.53
adj *of* n	17	2.75	19	2.46	17	2.50
adv *of* n/ing/v	12	1.94	20	2.59	13	1.91
v *of* n	10	1.62	12	1.56	9	1.33
BE adj *of* n	6	0.97	9	1.17	7	1.03
with n *of* n	3	0.49	0	0	4	0.60
BE *of* n	2	0.32	0	0	0	0
others	2	0.32	4	0.52	7	1.03
fixed phrases	130	21.03	141	18.29	119	17.53
Total	618	100	771	100	679	100

The category of others was added to refer to the instances of ***of*** in which the sequences of the words did not fulfil the criteria of a pattern. It either involves sequences of words that occur only once in CATMU, or word combination that does not contribute to the meaning of the whole phrase. Therefore, these instances of ***of*** will not be added into the analysis.

The first pattern identified is the pattern **n *of* n**. This is when the word ***of*** is found in between two noun groups as in (1).

(1) In addiction, the internet affect the ability of communication among students. (G097b)
The action of students are so waste time. (G104a)
The creation of linkable internet have brought changes in the human development history. (C077b)

In this pattern, the word ***of*** is generally used as a central linking word to connect two noun groups by providing more information on the noun groups involved. It is also found that the pattern **n *of* n** occupies half of the instances of ***of*** at Time 1, suggesting it as one of the dominant use of ***of*** found in CATMU.

The second pattern found in CATMU is the pattern **pron *of* n**. This is found when the word ***of*** is found after a pronoun that could also act as a quantifier and followed by a noun group as in (2).

(2) It can make students hard to survive their future because less of communicate. (B046a)
Many of us make a internet facilities to visit this website such as facebook, twitter and so on. (B018a)
Social media also can be used for educational purpose but most of students not used the social media for a good thing. (B032a)

The word ***of*** in this pattern is used to link the pronoun that comes before it to the noun group that comes right after by quantifying it to a certain degree. The pattern **pron *of* n** is the second highest pattern found with the instances of ***of*** after the pattern **n *of* n**.

The third pattern found in CATMU is the pattern **n *of* -ing**. This is when a noun group comes before the word ***of*** and followed by an *–ing* clause after ***of***. Examples of the pattern **n *of* –ing** are shown in (3).

(3) The disadvantage of using internet which brings more harm to students is social media.(B013a)
But that\x92s one of the benefit of having internet.(G112c)
Yet, when students had the tendency of losing too much time on the internet, they may neglect some of the internet had worsen the nature of procrastination amongst the students, where they always struggle to finish their school-demanding work at the eleventh floor. (G093a)

As with the pattern **n *of* n**, the word ***of*** is also used as a central linking word in the pattern **n *of* –ing** to connect the noun group that comes before the word ***of*** to the *–ing* clause coming after ***of***. Therefore, the noun group that comes before the word ***of*** gives more definition or information on the *–ing* clause that comes after ***of***. For example, in (3), the noun group before the word ***of***, *the disadvantage*, gives more information to the *–ing* clause that comes right after.

The next pattern is the pattern **adj *of* n**. This is when an adjective group is found before the word ***of*** and is followed by a noun group as in (4).

(4) No students is guaranteed of privacy when using the internet because it gather from the users. (G090b)
Conclusion is as a students they should aware of the internet. (C061a)
Growth of technology can be shown by useful of internet. (G095a)

The word ***of*** is still used as a central linking word to link the adjective group to the noun group. The adjective group in this pattern is related to the noun group coming after ***of*** by giving more information on its quality.

Next, the pattern **adv *of* n/-ing/v** happens when an adverb group is found before the word ***of*** followed by either a noun group, an *-ing* clause, or a verb group. Examples of the pattern are given in (5).

(5) Other than that, student spend a lot of time to service internet, their not out of home to discuss their work just of facebook. (C060a)
The younger students who are usually interested in a more exciting life where they tend to follow their sensibility instead of sense, usually do not deal well with all those alluring traps on internet. (G093a)
Instead of brings good to people, actually there are also having a certain harm especially from the students overside viewing. (B017c)

The combination of the adverb and the word ***of*** allows for an emphasis to be placed on the words following ***of***. Again, ***of*** is used to link the adverb group to the words following it which gives an emphasis to them.

The pattern **v *of* n** is made up of a verb group in any form (*-ed/d/s/-ing*) coming before ***of*** with a noun found after the word ***of***. An example of the pattern **v *of* n** can be found in (6).

(6) Internet consists of many applications which we can access for searching information that we want. (G091c)
The students had grown dependent of the application of internet, where the internet has been part of their life. (G093a)
As we know, media social is often discussed of their negative influence lately. (B004a)

Next, the pattern **BE adj *of* n** is identified when a BE verb comes before and adjective group followed by the word ***of***and a noun group following the word ***of***. Examples of this can be seen in (7).

(7) So, parents should be aware of this kind of things so that they can bring their childrens in positive ways. (B007c)
In conclusion, people may not be aware of the harmful effect of the use of the internet. (C073a)
Therefore, students need to be aware of the advantages and disadvantages of the internet. (B006b)

In this pattern, the adjective group attributes a sense of quality towards the noun group following ***of***. The noun group in the pattern often refers to a situation in which the adjective group responds to. In this case, the sequence BE+*adj* is used to attribute the

quality of the adjective to the noun group following ***of*** with ***of*** being the central linking word in between.

The pattern **with n *of* n** is found when the word *with* and a noun group is found before the word ***of*** followed by a noun group. An example of this pattern can be found in (8).

(8) Friends who have been lost contact each other can be communicate again with the help of internet and social media.(B021a)
It is as easy as ABC with the help of internet.(G109a)
In this recent years the using of internet increase drasticly with the help of mobile gadget such as smartphone and tablet.(C048c)

Last but not least is the pattern **BE *of* n**. This is when a BE verb is found before the word ***of*** and followed by a noun group as in (9).

(9) Addiction can be of any kind might be addicted to the networking sites and the gaming sites.(B025b)
The internet addiction can be of any kind, a student might be addicted to the social networking sites or the gaming sites and in the extreme cases. (G094a)

4.3 Fixed Phrases of *of* found in CATMU

Other than different patterns of use identified, the word ***of*** can also found to be used in different phrases. Mostly it could be found occurring in prepositional phrases such as *in front* ***of***, *outside* ***of***, and *out* ***of*** as in (10).

(10) On top of that, internet is the best medium to retrieve any information regardless of times and places.(B004b)
This platform also can be a communication zone with lecturer too outside of class.(C075b)
Other than that, student spend a lot of time to service internet, their not out of home to discuss their work just of facebook.(C060a)

Mostly, the prepositional phrase is used to indicate spatial position of something such as the use of the phrases *outside* ***of*** and *out* ***of***. However, the prepositional phrase *on top* ***of*** is combined with the word *that* which normally refers to an idea mentioned earlier. In this case, the phrase *on top* ***of***+*that* is used as a sequence connector to add on more information to an idea represented by the word *that* from the earlier part of the sentence. Other phrases such as the phrases *first* ***of*** *all*, *in spite* ***of*****,** ***of*** *course*, and *speaking* ***of*** were also found in CATMU as sequence connectors to link the ideas presented.

Other than that, the word ***of*** can also be found in phrasal verbs such as *regardless* ***of****, consists* ***of***, *take (sthg)* ***of***, *unheard* ***of*** and *speaking* ***of***in CATMU. Examples of the phrasal verbs found in CATMU are shown in (11).

(11) Social media consists of Facebook, Whatsapp, Wechat, Youtube, and Twitter.(B013a)
Ten years ago, the internet was practically unheard of by most of the people. Today, the internet is one of the most powerful and useful tool throughout the world.(B006b)
On top of that, internet is the best medium to retrieve any information regardless of times and places.(B004b)
Speaking of internet, the most dangerous effect are internet viruses.(B014b)

The use of ***of*** in phrases can be said as one of the dominating use of ***of*** in CATMU. Apart from the phrases described earlier, it is also found that the word ***of*** occurs dominantly in three phrases which are *a lot* ***of****, because* ***of***, and *in front* ***of***.

The quantitative measure of the three dominating uses of ***of*** in phrases found in CATMU is provided in Table 4.3 below.

Table 4.3: Quantitative measures of the three dominating use of *of* in phrases found in CATMU

Phrases	T1		T2		T3	
	Freq.	%	Freq.	%	Freq.	%
a lot ***of***	80	12.9	48	6.2	51	7.5
because ***of***	30	4.9	47	6.1	35	5.2
in front ***of***	8	1.3	23	3.0	23	3.4

From the quantitative measure given in Table 4.3 above, it can be seen that the phrase *a lot* ***of*** has a relatively high percentage of use. Each of the phrases will be discussed in terms of its use and structures as found in CATMU.

a lot ***of***

The phrase *a lot* ***of*** is found to be the most frequent phrase where the word ***of*** occurs. At Time 1, *a lot* ***of*** occupies 80 lines of the corpus and can be found in a few different variations. The frequency of the phrase *a lot* ***of*** decreases to 48 lines at Time 2 and then increases to 51 lines at Time 3.

The structure of the phrase *a lot* ***of*** can be found in different variations inside the corpus. At Time 1, it is found in four different variations. The conventional structure, *a lot* ***of***, takes up 68 lines of the 80 lines at Time 1. The phrase with an added *–s* to the word *lot* (*a lots* ***of)***, takes up eight lines. Another structure has the word *a*and *lot* close together (*alot* ***of)*** takes up three lines. Last but not least the informal form of the phrase *a lot* ***of*** *– lots* ***of*** is found in only one line at Time 1. The samples of the structures of the phrase can be found in (12).

(12) When we as a student, for sure they will have a lot of assignments to complete. (B024a)
The problem of bad information and news making is not unique to the internet, there are a lots of trashy magazine as well. (C081a)
In the nutshell, there are alot of advantage and benefits of the internet to students. (C074a)
Internet has proven to be very useful and has come with lots of advantages. (G092a)

A summary of the distribution of the structures of the phrase *a lot* ***of*** is given in Table 4.4 below.

Table 4.4: Distribution of the structure of the phrase *a lot of* in CATMU

a lot ***of***	**T1**		**T2**		**T3**	
	Freq.	**%**	**Freq.**	**%**	**Freq.**	**%**
a lot ***of***	68	85.0	41	85.42	46	90.20
a lots ***of***	8	10.0	4	8.33	4	7.84
lots ***of***	1	1.25	3	6.25	1	1.96
*alot****of***	3	3.75	0	0	0	0

The variation of the phrase *a lot* ***of*** decreases at Time 2 and Time 3 in which the structure *alot****of*** did not occur. However, the structure *a lots* ***of*** and *lots* ***of*** are still found to occur in the corpus at both Time 2 and Time 3 in varying quantity. At Time 2, the structure *a lots* ***of*** decreases to occur only in four lines but the structure *lots* ***of*** increases to occur in three lines. At Time 3 however, the structure *lots* ***of*** decreases to occur only in one line; the structure *a lots* ***of*** remains at four lines in the corpus at Time 3. The decreasing variation of structure for the phrase *a lot* ***of*** may show that the development of language use in CATMU is geared towards the conventional use of English over time.

The Collins Cobuild Dictionary registered the property of the phrase *a lot* ***of*** as a quantifier while the Oxford Dictionary has it as a determiner. However, all three dictionaries (including Macmillan) gave the definition of the phrase as a large amount or number of something or somebody. The same way in which *a lot* ***of*** is being used in the corpus; as a quantifier of the objects that come after it. Despite variation in the structures of the fixed phrase *a lot* ***of***, the meaning that was conveyed with the phrase is similar to that as has been presented in the dictionary. This shows that, despite using different structures, the participants in CATMU recognizes the conventional use of the fixed phrase *a lot* ***of*** and used it accordingly in their argumentative writing.

because ***of***

The phrase *because* ***of*** is the second most frequent phrase where ***of*** occurs in. It occurs 30 times in the corpus at Time 1. It increases to 47 at Time 2 and decreases to 35 at Time 3. There are no variations found in the phrase *because* ***of*** in terms of its structure. Analysis of the use of *because* ***of*** in the corpus found that it is generally used to introduce the objects that follow the phrase as being the reason for a phenomenon described earlier.

The phrase *because* ***of*** is mainly used to give reasons or to explain reasons for a phenomenon explained earlier. It is found to be mainly used in negative connotation, as in the examples given in (13).

(13) Association free occur because of these students want to know between one equally other and consequently will course occurrence of free association. (C058a)
Sometimes they forget to take a right meal because ofspending more time in surfing internet. (G101a)
A student also think no nedd to come back to the village during semester break because of this reasons. (B009a)

This could be attributed to the topic of the argumentative essay which prompts the participants to write about the negative consequences of the internet. The definition of the phrase *because* ***of*** in the dictionaries (Collins, Oxford, Macmillan) found that the phrase is generally defined as being used for explaining reasons for something that happens.

in front ***of***

The use of the phrase *in front* ***of*** occurs only eight times in the corpus at Time 1. However, the number increases to 23 at Time 2 and stays the same at Time 3. The phrase *in front* ***of*** can be found to be used in two different variations. The first is the conventional structure, *in front* ***of***, which dominates the phrase. The second variation is

when the spacing between the word *in* and *front* is removed, giving the structure as *infront* ***of***. Examples of both the structures of the phrase *in front* ***of*** can be found in (14).

(14) When the students spend more time in front of their computers, the tendency for them to get back pain and eye problems are very high. (B007a)
They just sit infrontof the computer and spent more than one hour or maybe 24/7 hour on internet or online gaming. (B002a)
They will 24 hours in front of laptop and computer. (G086c)

The distribution of the different structures can be found in Table 4.5 below.

Table 4.5: Distribution of the different structures of *in front of* in CATMU

in front ***of***	**T1**		**T2**		**T3**	
	Freq.	**%**	**Freq.**	**%**	**Freq.**	**%**
in front ***of***	7	87.5	21	91.30	17	73.91
infront ***of***	1	12.5	2	8.70	6	26.09

Different from the fixed phrase *a lot* ***of***, the structure of the fixed phrase *in front* ***of*** tend to be more towards the second variation in CATMU over time. This means that, instead of developing the use of the conventional structure of *in front* ***of*** over time, the participants of CATMU showed preference to the use of the second variation of the fixed phrase *in front* ***of*** (*infront* ***of***) over time due to the increasing frequency of the fixed phrase found over time.

Analysis of the use of *in front* ***of*** in the corpus found that it is mainly used to describe being in a position where you are facing something. The dictionaries gave similar definition to the phrase *in front* ***of*** which is as a prepositional phrase to describe the position of facing something, or that you can see something when you look forward. Despite using a different structure, the participants of CATMU still use the conventional meaning of *in front* ***of*** in their writing.

From the analysis of the fixed phrases for the word ***of***, it can be said that despite the varying structures of a fixed phrase found (as in the case of the fixed phrases *a lot* ***of*** and *in front* ***of***), the meaning of the fixed phrases as used by the participants of CATMU

remains the same. Although the structures of the fixed phrases are different, the meaning that the structure represents remains the same.

The changes of the use of the word ***of*** can be seen in the senses of ***of*** used. At the same time, the structures of the phrases used with ***of*** also changes over time. Another observation can also be made which relates to the use of the words found to the left and to the right of the word ***of*** in the corpus.

4.4 Senses of *of* found in CATMU

Analysis of the patterns found in the use of the word ***of*** shows that participants were able to use the word ***of*** in ten different ways. Altogether, ten senses of ***of*** could be identified from the analysis of the patterns of ***of*** inside the corpus. Most of the senses are derived from the pattern **n *of* n**. This may be due to the dominant use of the pattern in the corpus. It could also be due to the variations of words used in the pattern **n *of* n**. The senses of ***of*** found used in CATMU and its quantitative measures are provided in Table 4.6.

Table 4.6: Quantitative measures of the senses of *of* found in CATMU

Senses	Use	T1		T2 (%)		T3 (%)	
		Freq	%	Freq	%	Freq	%
Sense 1	used to relate two words to describe an action as a whole	143	23.14	143	18.56	96	14.14
Sense 2	used to relate two ideas to have the words before ***of*** as a feature of the word coming after ***of***	93	15.05	127	16.47	113	16.64
Sense 3	used to relate two ideas to have the words after ***of*** to give definition or more information on the word before ***of***	75	12.14	165	21.40	154	22.68
Sense 4	used to quantify the words that come after ***of***	179	28.96	176	22.83	142	20.91
Sense 5	used to link two ideas to show belonging	4	0.65	20	2.59	19	2.80

Table 4.6: Continued

Sense 6	used to show a specific part of something	4	0.65	20	2.59	9	1.33
Sense 7	used to single a specific thing from a group	84	13.59	84	10.89	113	16.64
Sense 8	used to show degree of higher or lesser amount	4	0.65	7	0.91	7	1.03
Sense 9	used to indicate the relation of a feeling or a quality towards a thing	29	4.69	24	3.11	22	3.24
Sense 10	used to describe when something else is involved in the action	3	0.48	5	0.65	4	0.59
	Total	618	100	771	100	679	100

From Table 4.6 above, it can be seen that Sense 4 is found to be the most frequently used sense of ***of*** in CATMU. At Time 1, the use of sense 4 is found at 28.96% of the corpus. However, the percentage decreases at Time 2 to 22.83% and further decreases to 20.91% at Time 3. The use of Sense 4 which is when the word before ***of*** is used to quantify the words coming after ***of*** remains as the most frequent use of ***of*** at Time 2, but it became the second frequently used sense of ***of*** at Time 3 when Sense 3 became the most used sense of ***of*** identified.

At Time 1, Sense 3 of ***of*** is found to be used only at 12.14% of the corpus. This suggests that the use of ***of*** to relate two ideas by giving more definition or information on the idea that comes before ***of*** was used less at Time 1. However, the percentage increases sharply to 21.40% at Time 2, and further increases to 22.68% at Time 3. This suggests that over time, the use of ***of*** to define the words following ***of*** became more familiar to the participants. When referred to in the dictionary, Sense 3 is registered as the first and second sense of ***of*** in both Oxford and Collins Cobuild Dictionary. This implies that Sense 3 is the more common use of ***of*** that an English learner should know. It could be said that over time Sense 3 became more of a familiar use to the participants of CATMU.

The senses of ***of*** were first identified from the learner data and then checked against three different advanced learners' dictionaries. As noted in Chapter 3, the three advanced learners' dictionaries, Collins Cobuild, Macmillan, and Oxford, were used as the references to decide on the different senses expressed by the students in this study.

Analysis of each of the pattern found that each pattern could exhibit different uses of ***of*** depending on the words found concurrently to the word ***of***.

4.4.1 The patterns **n *of* n** and **with n *of* n** in CATMU

Analysis of the senses of ***of*** for the pattern **n *of* n** suggests that there are six senses of ***of*** used with the pattern **n *of* n** in CATMU. The percentage of each senses used changes over time as the vocabularies used by the participants in their argumentative writing changes.

The senses of ***of*** found used for the pattern **n *of* n** varies as participants used more vocabularies to express their meaning in the argumentative writing task. As the range of words used by the participants increases, the use of each sense of ***of*** for the pattern **n *of* n** changes. The quantitative measures of the senses of ***of*** for the pattern **n *of* n** used in the corpus over time are presented in Table 4.7 below.

Table 4.7: Quantitative measures of the senses of *of* for the pattern n *of* n over time

n *of* n	Use	T1		T2		T3	
		Freq	**%**	**Freq**	**%**	**Freq**	**%**
Sense 1 *(Sense 1)*	Used to relate two words to describe an action as a whole	112	35.56	119	28.88	77	22.38
Sense 2 *(Sense 2)*	Used to relate two ideas to have the words before ***of*** as a feature of the word coming after ***of***	75	23.81	108	26.21	102	29.65
Sense 3 *(Sense 3)*	Used to relate two ideas to have the words after ***of*** to give definition or more information on the word before ***of***	93	29.52	124	30.10	113	32.85
Sense 4 *(Sense 4)*	Used to quantify the words that come after ***of***	26	8.25	27	6.55	26	7.56
Sense 5 *(Sense 5)*	Used to link two ideas to show belonging	4	1.27	17	4.13	17	4.94
Sense 6 *(Sense 6)*	Used to show a specific part of something	5	1.59	17	4.13	9	2.62
Total		315	100	412	100	344	100

*the senses in this table correspond to the senses stated in the parentheses in Table 4.6

Sense 1

Sense 1 refers to the use of ***of*** where ***of*** is used to link two words that brought about a description of action done involving something or somebody. The noun referring to the action done is normally placed before the word ***of*** and the noun that is involved in the action that normally follows the word ***of***. For example, the word *use* in the corpus shows how the word ***of*** is used in this sense. In (15), the use of the sequence *use*+***of***+**n** refer to the actual act of using the noun that follows the word ***of***. In this example, the noun following the word ***of*** is being affected by the action noun that comes before the word ***of***.

(15) In conclusion, people may not be aware of the harmful effects of the use of internet. (G086a)
Therefore, the use of internet brings more harm than good to students. (B029a)
In conclusion, people may not be aware of the harmful effects of the use of internet. (G086a)

However, there is another way in which Sense 1 can occur within the pattern as can be seen in (16).

(16) It is as easy as ABC with the help of internet. (G109a)
Friends who have been lost contact each other can be communicate again with the help of internet and social media. (B021a)
Unlike our ancestors which require to walk miles away to call for their children which studying at another city, we can just have a call or even video call to our friends or parents using social medias with the help of internet. (B005a)

This sense is expressed with the pattern **with n *of* n** and can be considered as an extension of the pattern **n *of* n** which exemplifies a different sense. From (16), it can be seen that the objects that come right after the word ***of*** are not affected by the word *help*. Instead, it is the one that does the action described by the word before ***of.***

Sense 2

Sense 2 refer to the use of ***of*** when ***of*** is used to relate both the objects that comes before and after the word ***of*** by having the first object identify the features of the second object. In this sense, the second object following ***of*** is the object of discussion while the first object before ***of*** gives the features of the second object. A few examples of the sentences found exemplifying Sense 2 can be seen in (17).

(17) This kind of things help students to be well aware of our world's situation. (C078a)
Internet is the way students to access what they need in many kind of information. (B025a)
This will cause their academic achievement become down and the parents will upset with this kind of attitude that show by their children. (G101a)

The sequence *kind*+***of*** +**n** refers to a particular type of something. The meaning of *kind* in this sequence is found in the first sense of *kind* given in the Collins Cobuild Dictionary. This meaning of *kind* is only realized in this sequence. However, when focusing on the node word ***of*** the word *kind* seems to identify the feature of the second noun that follows which is the type.

Sense 3

Sense 3 is when ***of*** is used to relate two objects whereby the second object following of defines or give more information on the first object before ***of***. In this sense, both the objects before and after the word ***of*** is the subject of discussion but the emphasis is on the first object. The examples in (18) show the use of this sense in the corpus.

(18) There are many disadvantages of the internet. (B009a)
By surfing the web, receiving information, email or any messages, the students can be easily exposed to extremely inappropriate materials if they do not aware of the disadvantages of the internet. (B006a)
However, there are some disadvantages of internet usage. (G101a)

The examples in (18) above are referring to the disadvantages of something. The words that follow ***of*** in the examples shown above give more information on the word *disadvantages* that comes before ***of***.

Sense 4

Sense 4 for the pattern **n *of* n** is when the word ***of*** is used to show quantities or group of something. The sample sentences of this sense can be seen in (19).

(19) The internet gives a millions of people access to information and they would but otherwise be bad. (B038a)
Majority of the school using ICT as their second medium for learning. (G087a)
This can have a negative effect on their schoolwork, the amount of exercise they get and their social lives. (B037a)

The words following ***of*** in the samples given above describe an entity or phenomenon that is made quantifiable by the words before ***of***.

Sense 5

Sense 5 refers to the use of ***of*** to link two nouns which shows that the first noun belongs to the place or the entity following the word ***of***. As can be seen in (20), the words following ***of*** describe a place in which the word preceding ***of*** could identify with.

(20) The internet are used by many people of the worlds to access information… (B018a)
As a students in the modern life has become eassier and the people of the world to acces the internet. (G112a)
Futhermore, I as a student of ERT (Home Economics) will access internet through youtube to study or learn how to sewing "BajuKurung" so that I can be finished that assessment on time. (G095c)

Sense 6

Sense 6 refers to the use of ***of*** to show a specific part of something. In (21), the use of the word ***of*** is used to show that the words preceding ***of*** is a specific part of the word following ***of***.

(21) For example, when have a competition to create something inovative ideas the can used internet for the innovative ideas to shows up that oneside of the opinion and idea will made. (B018b)
In conclusion, our society is in the middle of the technological boom now. (B006b)
Two people in opposite side of the world can communicate with each others as long as has internet connection. (G092c)

The senses of ***of*** found that were used for the pattern **n *of* n** varies as participants used more vocabularies to express their meaning in the argumentative writing task. As the range of words used by the participants increases, the use of each sense of ***of*** for the pattern **n *of* n** changes.

From the quantitative measurement in Table 4.7, it can be seen that Senses 1 to 3 appear to be more frequently used in the corpus. However, there are a few changes with the percentage of each sense over time.

At Time 1, Sense 1 for the pattern **n *of* n** initially has the highest percentage of use occupying 35.56% of the pattern. This suggests that at Time 1, the participants rely heavily on the description of the action as a whole to build up their argumentative writing. However, at Time 2, the percentage of Sense 1 used in the pattern **n *of* n** decreased to occupy 28.88% of the pattern making it the second highest percentage of sense used for the pattern. At Time 3, the percentage of use dropped again to occupy

22.38% of the pattern. This suggests that, the participants rely less on using the word ***of*** to describe a whole action over time.

Sense 3 initially has the second highest percentage of use for the pattern **n *of* n** occupying 29.52% of the pattern. However, it became the sense with the highest percentage of use at Time 2 and Time 3 and occupies 30.10% and 32.85% of the corpus at Time 2 and Time 3 respectively. This suggests that as participants rely less on using the word ***of*** to describe action, the use of ***of*** shifted to being the central linking word that has one word describing and giving more information to the other.

The use of Sense 2 for the pattern **n *of* n** occupies 23.81% of the pattern at Time 1; it is also the third highest sense of ***of*** used for the pattern at Time 1. At Time 2, the percentage increases to 26.21% of the pattern. The percentage further increases to occupy 29.65% of the pattern at Time 3. Sense 2 has the function of ***of*** to be most similar to Sense 3 in which the word ***of*** is used as a central linking word by having one word describes the features of the other. This suggests that participants gradually change their use of ***of*** to be used as a central linking word to describe features and giving more information.

The changes in the use of the senses of ***of*** could be attributed to the increasing varieties of words being used over time in the corpus. It could also be due to the changes in the number of words produced by the participants in each time of data collection. Similar to the pattern **n *of* n**, other patterns also show different senses of ***of*** used. The next section discusses the senses of ***of*** found in the pattern **pron *of* n** in CATMU.

4.4.2 The pattern **pron *of* n** in CATMU

Analysis of the pattern **pron *of* n** found three senses of ***of*** used within the pattern, some of which has been identified in the pattern **n *of* n**. The percentage of each sense changes over time due to the different range of words used by the participants. The changes in the use of the pattern **pron *of* n** are summarized in Table 4.8 below.

Table 4.8: Quantitative measures of the senses of *of* for the pattern pron*of* n over time in CATMU

pron *of* n	Use	T1		T2		T3	
		Freq	%	Freq	%	Freq	%
Sense 1 *(Sense 7)*	Used to single out a specific thing from a group.	37	35.24	51	35.66	66	48.89
Sense 2 *(Sense 4)*	Used to quantify words that comes after ***of***	66	62.86	88	61.54	66	48.89
Sense 3 *(Sense 8)*	Used to show degree of higher or lesser amount	2	1.90	4	2.80	3	2.22
Total		105	100	143	100	135	100

*the senses in this table correspond to the senses stated in the parentheses in Table 4.6 (pg. 40)

Sense 1

Sense 1 for the pattern **pron *of* n** refers to the use of ***of*** to single out a specific object from a group of objects. The use of this sense of ***of*** can be seen in (22).

(22) One of disadvantage of internet usage for students is waste time. (G101a)
One of harm internet to student is sosial media. (C062a)
One of the activities that everyone do was access social media like facebook, twitter, instagram and so on. (B010a)

The combination *one*+***of***+N is usually used when referring to the nouns as something specific and talking about it like an individual piece of item. The meaning that is conveyed in here comes in the pattern ***one of* n** (as seen in (22))**,** whereby the category is being referred to before talking about the item in the category as an individual piece

of item. It can also be conveyed differently in the pattern **n BE *one of* n** by referring to the individual item being discussed first before placing them into categories as in (23).

(23) Other than that, movies are one of the disadvantages of using internet. (B013a)
A lot of people or individual have their own facebook account, instagram and twitter, this is also one of bad thing that can harm ourself, expecially girl or woman. (G111a)
Today, internet is one of our daily needed. (C047a)

Sense 2

The second sense of ***of*** found in the pattern is similar to sense 4 in the pattern **n *of* n** which is used to quantify the nouns following ***of***. The use of the sense 2 for the pattern **pron *of* n** can be seen in (24).

(24) Some of the student do the online business to earn the side income. (B002a)
Though students need to know the limits from exposing so much of their private information. (C078a)
Same thing happen to most of students. (B032a)

This sense of ***of*** is found to be in the most frequently used sense of ***of*** used at Time 1. It is also the sense with the highest number of use in Time 1. Only two senses of ***of*** could be identified at Time 1. The third sense of ***of*** is only found at Time 2 and Time 3 of the data.

Sense 3

A new set of words was found to represent the use of ***of*** in another sense in which ***of*** is used to show something to a certain degree. The example of the sentences found using sense 3 for the pattern **pron *of* n** can be seen in (25).

(25) More students these days do less of the physical activities. (B044b)
There is more of the internet such as a social network like facebook, twitter, wechat and more. (G088b)
Besides that, students nowadays spend more of their leissure time on facebook and facebooking has become one of their routine. (B007c)

Over time the distribution of the frequency used for the pattern **pron *of* n** changes. From Table 4.8 above, it can be seen that for Sense 1, the number of occurrences changes over time. At Time 1, Sense 1 occupies 35.24% of the pattern. However, the percentage increases to 48.89% of the pattern at Time 3. Similar to sense 1 for the pattern **pron *of* n**, the use of sense 2 for the pattern **pron *of* n** also changes over time. At Time 1, Sense 2 occupies 62.86% of the pattern. However, it decreases to occupy 48.89% of the pattern at Time 3. The percentage of use of sense 3 was also found to change over time. At Time 1, the sense 3 for the pattern **pron *of* n** occupies only 1.90% of the pattern. It increases at Time 2 to occupy 2.80% of the pattern and then decreases at Time 3 to occupy 2.22% of the pattern.

The changes in the use of the senses for the pattern **pron *of* n** can highly be attributed to the changes in the varieties of the words used in the pattern. It can also be due to the increasing use of the words such as *most*, *some*, *all*, *many* and *much* at Time 2 of the data and the decreasing variation of words used at Time 3 of the data. Another pattern of ***of*** that can be found with the use of different senses is the pattern **v *of* n** which will be discussed in the next section.

4.4.3 The pattern **v *of* n** in CATMU

For this pattern, the verb groups that are included in this pattern comprises of different forms of verb groups. This includes verbs with –s, verbs with *–d/ed* and verbs with *–ing.* Analysis of the words to the left of ***of*** found three senses of ***of*** being used in this pattern. Two of the senses have been found in the pattern **n *of* n** while one of it is a new sense that is involved in only this pattern. The distribution of the senses found for the pattern **v *of* n** over time can be summarized in Table 4.9 below.

Table 4.9: Quantitative measures of the senses of *of* for the pattern v *of* n over time in CATMU

v *of* n	Use	T1		T2		T3	
		Freq	%	Freq	%	Freq	%
Sense 1 *(Sense 3)*	Used to relate two ideas to have the words after ***of*** to give definition or more information on the word ***of***	4	40	1	8.33	0	0
Sense 2 *(Sense 1)*	Used to relate two words to describe an action as a whole	4	40	7	58.34	5	71.43
Sense 3 *(Sense 10)*	Used to describe when something else is involved in the action	2	20	4	33.33	2	28.57
Total		10	100	12	100	8	100

*the senses in this table correspond to the senses stated in the parentheses in Table 4.6 (pg. 40)

Sense 1

Sense 1 for the pattern **v *of* n** is similar to Sense 3 for the pattern **n *of* n** (refer to page 45)**.** It is when the words after ***of*** are used to give more definition or information to the words preceding ***of***. Examples of Sense 1 for the pattern **v *of* n** found in the corpus are given in (26).

(26) If this thing is continues of long time, insomnia may occur. (C062a)
As we know, media sosial is often discussed of their negative influence lately. (B004a)
In addition, obviously students are more sit in front of computer that happen of lesser time to study. (B025b)

From the examples given above, the noun groups following ***of*** give more information to the word before ***of***. The use of sense 1 for the pattern **v *of* n** is found to decrease over time. However, the changes in the percentage of use for each sense of ***of*** for the pattern **v *of* n** will be discussed in the next section.

Sense 2

Sense 2 for the pattern **v *of* n** is similar to sense 1 for the pattern **n of n**. It refers to the use of ***of*** as describing the action as a whole. Much like Sense 1 for the pattern **n *of***

n, the use of ***of*** in this sense is to describe an action as a whole phrase. Examples of the use of Sense 2 for the pattern **v *of* n** are given as in (28).

(27) So, surfing of internet through the unlegal or ungood website is also one of the problem for the students. (B024a)
But it might be bad if student misuse of internet usage with plagiarism or copy the information that obtained in internet are not all the true.(B027a)
Firstly, internet can decrease of original idea of student. (B046c)

Sense 3

This sense of ***of*** is used when describing an action that involves someone or something else. Examples of the use of Sense 3 for the pattern **v *of* n** are given in (28).

(28) People often put a wealth of their personal information on the internet without thinking of the dangerous that might be happen to them. (B010a)
I'm not saying it's an easy addiction to leave it behind but students need to think of it in a long period of time. (C078b)
In fact, it is not good to the singers because of Napster it impossible to stop it because it's countless and the singers feel that they not be paid of their hard work. (B004c)

The sense is used to relate two words by showing what is involved in the action. Different from Sense 1 for the pattern **v *of* n**, Sense 3 explain what the action does instead of describing the whole action as a form.

At Time 1, Sense 1 for the pattern **v *of* n** occupies 40% of the pattern. It decreases at Time 2 to occupy only 8.33% of the pattern. The use of Sense 1 for the pattern **v *of* n** is null at Time 3. This suggests that, over time, the participants used less of Sense 1 to express their meaning in their argumentative writing.

Sense 2 can be observed as the dominating sense of ***of*** used in the pattern **v *of* n** in the corpus. It was found to occupy 40% of the pattern at Time 1. The percentage increases to 58.34% of the pattern at Time 2 and continues to increase to occupy 71.43% of the pattern at Time 3.

The use of Sense 3 for the pattern **v *of* n** is found to increase at Time 2 but decreases at Time 3. At Time 1, it occupies 20% of the pattern. It occupies 33.33% of the pattern at Time 2 and decreases to occupy 28.57% of the pattern at Time 3. This may be due to the dominating use of Sense 2. However, it could also be that the use of Sense 3 decreases due to different variation of words used by the participants over time.

4.4.4 The pattern **adj *of* n** and **BE adj of n** in CATMU

Analysis of the senses of ***of*** for the pattern **adj *of* n** found only one sense of ***of*** used with the pattern. The sense of ***of*** here refers to the use of ***of*** to indicate the thing a feeling or quality relates to (Sense 9 according to Table 4.6). The examples of the use of this sense can be seen in (29).

(29) Conclusion is as a students they should aware of the internet. (C061a)
They claim not to use the internet as they afraid of the possible negative consequences that may bring to them.(B006c)
It can cause their life full of boredom because they always alone. (G100c)

This sense of ***of*** can also be found exemplified in the pattern **BE adj *of* n** as in (30) below.

(30) In conclusion, people may not be aware of the harmful effect of the use of the internet. (C073a)
They need to be aware of this kind of thing. (C078b)
No person is guaranteed of privacy when using the internet because some website stores information that it gathers from the users.(C079a)

In both (29) and (30) the word ***of*** links the adjective and the noun group coming after it to give a certain quality or feeling that the adjective that comes before ***of*** imply. Table 4.10 shows that this sense of ***of*** is used in the pattern **adj *of* n** and **BE adj of n** across all three instances (Time 1 – Time 3; refer to Table 4.2 for changes in frequency).

Table 4.10: A summary of the sense of *of* found for the pattern adj *of* n and BE adj *of* n

Sense	Use	Time 1	Time 2	Time 3
Sense 1 *(Sense 9)*	Used to indicate the relation of a feeling or a quality towards a thing	**adj *of* n** **BE adj *of* n**	**adj *of* n** **BE adj *of* n**	**adj *of* n** **BE adj *of* n**

*the senses in this table correspond to the senses stated in the parentheses in Table 4.6

4.4.5 The pattern **n *of* –ing** in CATMU

Analysis of the senses of ***of*** associated with the pattern **n *of* –ing** found only one sense of ***of*** is being exemplified in the pattern **n *of* –ing** over time.

The sense found within the pattern **n *of* –ing** is similar to Sense 3 of the pattern **n *of* n** (Sense 3 according to Table 4.6) which is the words following ***of*** give more definition to the words preceding ***of.*** Analysis of the words to the left of ***of*** found two words occurring at all Time 1 to Time 3 of the data; those are the words *effect* and *disadvantages*. Other words that are found to the left of the word ***of*** in this pattern are the words *way*, *ways*, *culture* and *capacity*. The examples of the use of this sense can be seen in (31).

(31) The reason that supportive that topic are effect of using computer on health problems. (G108a)
The major reason supporting for this issue is that effect of using the internet and they spend more time on sitting computer. (C053b)
The ways to get information nowdays will reduce capacity of thinking to students. (B041c)

The occurrence of the sense of ***of*** for the pattern **n *of* –ing** decreases at Time 2 and increases at Time 3, which corresponds to the percentage of the pattern **n *of* –ing** occurring in CATMU. This may be due to the higher frequency of other patterns found at Time 2, which causes the use of the pattern **n *of* –ing** to decrease (refer to Table 4.2 for the frequency information of the pattern **n *of* –ing)**.

4.4.6 The pattern **adv *of* n/-ing/v** in CATMU

The adverbs that are involved in this pattern vary over time with the word *instead* being the most frequently occurring word. At Time 1, the pattern occurs 12 times in the corpus with *instead* being found ten times in the occurrence. The other two words that are involved in this pattern are *just* and *mostly*. Other words that are found in this pattern over time are *almost*, *apart*, and *beside*. Since *instead* is the word that is dominant in the pattern, it will be discussed as a whole.

Instead of

The word *instead* is found to dominantly occupy the pattern **adv *of* n** across all three instances of CATMU. A search through the Collins Cobuild Dictionary found the sequence *instead*+***of*** being classified as a phrase. However, both the Macmillan and Oxford Dictionary did not classify it as a phrase. Instead, the word ***of*** is taken as the word that can occur with the word *instead*. Therefore, the sequence *instead*+***of*** is not considered as a phrase but is classified under the pattern **adv *of* n**.

When checked through the dictionary, the word *instead* means being in the place of something or somebody else. The Oxford Dictionary defines the word *instead* as in the place of somebody or something. The definition remains the same even with the word ***of*** being added to the word *instead*. The Macmillan Dictionary classified the word *instead* as the 2500 most used word. It is being defined as being used for saying that one person, thing or replaces another. The definition of the sequence *instead*+***of*** in the Collins Dictionary is doing one thing and not the other as a result of a choice or a change of behaviour.

A look through the corpus shows the sequence *instead*+***of*** is being used in the same way it is defined in the dictionaries. Example of the sequence *instead*+***of*** can be seen in (32).

(32) They prefer bikes instead *of* cycles or walking. (C057a)
Even at night, instead *of* sleeping, they prefer to waste their time on the internet. (B007b)
This is much more convenient instead *of* writing on paper in which we have to prepare our own study materials. (G091b)

When the word ***of*** is analysed, it can be said that the word ***of*** is used to relate two words where the words after ***of*** gives more information to the word before ***of*** (Sense 3 according to Table 4.6). In the examples above, the words after ***of*** normally shows what is being replaced with. This is similar to the use of ***of*** in sense 3 for the pattern **n *of* n** (Sense 3 according to Table 4.6).

4.4.7 The pattern **BE *of* n** in CATMU

The pattern **BE *of* n** is only found at Time 1 of CATMU. When the sense of ***of*** is analysed in for the pattern, it is found that the word ***of*** is used to state belonging (Sense 5 according to Table 4.6) and is only exemplified in the pattern. Examples of the pattern are shown in (33).

(33) Addiction can be of any kind might be addicted to the networking sites and the gaming sites.(B025b)
The internet addiction can be of any kind, a student might be addicted to the social networking sites or the gaming sites and in the extreme cases.(G094a)

Both the examples shown in (33) shows that *addiction* can belong to any kind. This meaning is exemplified with the pattern **BE *of* n**. This then corresponds to sense 5 (Sense 5 according to Table 4.6) for the pattern **n *of* n** in CATMU. The differing senses

of ***of*** can be attributed largely to the changing lexical variation of the words concurrent to the word ***of*** in CATMU. This is discussed in the next section.

4.5 Emergent Lexis

The analysis of the words concurrent to the word ***of*** in CATMU found that the variation (the use of different words both to the left and right of ***of***) of the words seems to increase over time. According to pattern grammar (Hunston & Francis, 2000), words can be placed into meaning groups according to its pattern. In order to see how the variety of the lexis found concurrent to the word ***of*** the lexis were categorized into different meaning groups. The words both to the left and to the right of the word ***of*** were classified according to the meaning groups suggested in Francis, Hunston and Manning's (1998) Collins Cobuild Grammar Patterns 2. Only words that appear more than once and used by two different participants are considered as emergent lexis.

4.5.1 Meaning groups of the words to the left of ***of*** in CATMU

The classification of the words concurrent to the word ***of*** found that the words can be found in several different meaning groups. Moreover, the meaning groups that can be identified seem to expand over time. Table 4.11 shows the meaning groups of the words to the left of ***of*** identified in CATMU over time

Table 4.11: Meaning groups of the words to the left of *of*identified in CATMU over time

Meaning groups of words to the left of *of*over time				
Meaning groups	**Sample words/phrases**	**T1**	**T2**	**T3**
The PERCENTAGE group: words that indicate a portion of a larger thing or group.	*majority, a large number, the largest number, the percentage…*	/	/	/
The CONSTRUCTION group: words that refer to an action or process	*the use, excessive use, the usage, the using, use, the existence, the help, the creation, the process, the wasting…*	/	/	/
The SHORTAGE group: words that refer to a shortage or lack of something	*a lack, lacking, less, lack*	/	/	/
The TYPE group: words that refer to a type or form of something.	*kind, variety, a short form, type, various type, the mode,*	/	/	/
The AWARE and UNAWARE group: words to indicate that someone knows, or does not know, that something exists, is true, happening, or is present.	*aware, not aware, well aware, extreamly aware, extremely aware*	/	/	/
The FRAGRANCE group: words that indicate a quality, characteristics or feature.	*quality, age, the life, the beauty, the sophistication*	/	/	/
The GANG group: words that indicate a group or quantity of people or things.	*the amount, a group, wide range, student, many victim, a collection, the user, the people*	/	/	/
The ISSUE group: words that indicate something in a general way.	*the nature, an issue, another disadvantages, the culture, the advantages, the young generation, the ability, the power*	/	/	/
The AIM group: words that refer to someone's aim or objective.	*the purpose*	/		
The WAY group: i) Words that refer to the way of doing something or a thing that enables someone to do something. Words to indicate that you are talking about one aspect of something, or to indicate what that aspect is.	*easy ways, in sense, a matter, our way, the way*	/	/	/
The ERA group: words that refer to a period of time or a point of time.	*era, hours, a long period, working hours, the time, time, all era, this era*	/	/	/
The ANNOUNCEMENT group: words that refer to communication, thought or knowledge.	*any private information, their interaction, news*	/	/	/
The POSSIBILITY group: words that indicate a degree of likelihood that something will happen.	*the risk, more risk, risk, a risk*	/	/	/
The FRONT group: words that indicate positions, whether physical or metaphorical.	*front, outside, top, opposite side, out,*	/	/	/

Table 4.11: Continued

The LIKELY group: words that indicate whether something is likely true or not.	*guaranteed, the chances*	/	/	
The PERSPECTIVE group: words that indicate whose opinion you are giving.	*my view, new view*	/		
The PROMISE group: words that concern with being committed to a future action.	*thinking, the thinking*	/		
The SAMPLE group: words that refer to an instance of sample of something.	*a remarkable example, the example*		/	/
The RISE and FALL group: words that refer to the occurrence, beginning, development, or ending of something or someone.	*the existence, the advent, the detriment, the presence, the increasing, loss, the decrease, decrease*		/	/
The INDEPENDENCE group: words that refer to states or situation.	*freedom*		/	
The TAPE group: words that refer to ways of storing and recording sounds, pictures, or information.	*the rise images*		/	
The FULL group: words that indicate that something or someone has, contains, or includes something.	*full*		/	/
The ADDICTION group: words that refer to mental or physical states or conditions, usually negative ones.	*afraid*			/
The TELEVISION group: words that are concerned with broadcasting.	*the website*			/

Table 4.11 shows that the meaning groups of the words immediately to the left of the word ***of*** generally increase over time. At Time 1, only 17 meaning groups were found at Time 1, the number again increases to 19 at Time 2 and decreases to 18 at Time 3. Only a few of the meaning groups can be repeatedly found in all three times of data collection. These are the PERCENTAGE group, the CONSTRUCTION group, the SHORTAGE group, the TYPE group, the AWARE and UNAWARE group, the STAGE group, the CAUSE and RESULT group, the FRAGRANCE group, the GANG group, the ISSUE group, the WAY group, the ERA group, the ANNOUNCEMENT group, and the POSSIBILITY group.

Three of the meaning groups identified are found only at Time 1; these are the AIM group, the PERSPECTIVE group, and the PROMISE group. Two of the meaning

groups can only be found at Time 2; these are the INDEPENDENCE group and the TAPE group. At the same time, only two of the meaning groups can be found at Time 3; these are the ADDICTION group and the TELEVISION group. The LIKELY group can only be found at T1 and T2 of CATMU. Three of the meaning groups can be found at only Time 2 and Time 3 of the CATMU.

4.5.2 Meaning groups of the words to the right of ***of*** in CATMU

A similar classification to the words immediately to the right of ***of*** could be made. Several meaning groups for the lexis to the right of ***of*** were identified. Table 4.12 shows the meaning groups of the words to the right of ***of*** identified in CATMU over time.

Table 4.12: Meaning groups of the words to the right of *of* identified in CATMU over time

Meaning groups of words to the right of *of* over time				
Meaning groups	**Sample words/phrases**	**T1**	**T2**	**T3**
The ISSUE group: words that indicate what something is in a general way.	*the activities, the current issues, the disadvantages, benefits, the problem*	/	/	/
The CONSTRUCTION group: words that refer to an action or process.	*this development, the use of internet, their excessive exposure*	/	/	/
The GANG group: words that refer to a group or quantity of people or things.	*the biggest network, the same age group, the people , the person, the rest of the worlds*	/	/	/
The ARCHITECT group: i) words that refer to people who have created or found something. ii) words tha indicate people who do something to or with something. iii) words that refer to people who support, admire, protect, or oppose someone or something. iv) words that refer to people who are n charge of an organization. v) words that refer to people who are important or skilled in a particular field or activity. vi) words that refer to people who live or come from a particular place. vii) words that refer to people but do not fit into any of the six groups.	*the users, the student, internet user, the responsible user, the user of internet, cyber bullies, these teenagers, these children, graduated students*	/	/	/
The EPISODE group: words that refer to an event or occurrence of something.	*this case, cases on cyberbullying, the rape case, cases phidophilia*	/	/	/

Table 4.12: Continued

The ANNOUNCEMENT group: words that refer to communication, thought or knowledge.	*knowledge, knowledge and information, huan knowledge*	/	/	
The SHORTAGE group: words that refer to a shortage or lack of something.	*lack interaction skill*	/		
The SUPPORT group: words that refer to help or support.	*the guidance or security*	/		
The FRAGRANCE group: words that indicate a quality, characteristic, or a feature.	*the dangerous, the dangerousness, criminal act and offensive and discriminatory behaviour*	/	/	/
The ERA group: words that refer to a period of time or a point in time.	*their life, the 1980's, a technological era,*	/	/	/
The WANDER group: words that are concerned with movement or arrival of a more specific kind.	*going to supermarket, going to online business, getting around the internet, going out for a walk*	/	/	
The DABBLE group: words that are concerned with getting involved with something or someone.	*Using computer, playing internet, abusing the internet, connecting to the internet,*	/	/	/
The DOZE group: words that indicate someone sleeps, usually briefly.	*sleep*	/		
The OVERSPEND group: words that refer to spending a lot of something.	*their spend a lot of time*	/		
The RELATIONSHIP group: words that refer to a relationship or a link.	*this free association, social relationship. The relationship. Worldwide connection*	/	/	/
The RESOURCES group: words that refer to the resources needed to do something.	*money, resources, thousands dollor*	/	/	/
The COMMUNICATION group: words that refer to communication with someone.	*communication, social interaction, communication between students,*	/	/	/
The INDEPENDENCE group: words that refer to states or situation.	*our world's situation, this situation*	/	/	
The REQUIREMENT group: words that refer to things that someone likes or wants.	*our daily, needed, the general needs or demand, their daily needs*	/	/	/

Table 4.12: Continued

The FEAR group: words that refer to feelings, attitudes, or views that people have.	*insecurity, their attitude, bad manner*	/	/	/
The ATTEMPT group: words that refer to attempts to do or get something.	*their effort*	/		
The PLACE group: words that refer to places.	*the world, our country, the place*	/	/	/
The TAPE group: words that refer to ways of storing or recording sounds, pictures, or information.	*the video in youtube, lewd photos or images, their data, computer program or data*	/	/	/
The DESIRE group: words that refer to a desire to have something.	*the teenagers desire, their intention*	/		/
The PART group: words that refer to a part or aspect of something.	*bad thing, this kind of thing, the important thing, many others things, thing*	/	/	/
The SCIENCE group: words that refer to what makes something works or happen.	*the latest technology, the internet technology, the important technology, the popular technology, technologies,*	/	/	/
The TELEVISION group: words that are concerned with broadcasting.	*the internet, social media, the media social, the websites, the social networking sites*	/	/	/
The MESSAGE group: words that refer to communication and information.	*the important information, private information, wrong information, all kind of information*	/	/	/
The TIME group: words that refer to times.	*the day and night, their leisure time, their valuable time, their learning time*	/	/	/
The MACHINE group: words that refer to things that are used to do or make something.	*the computer, the device, their laptop, their gadgets*	/	/	/
The RESIGNATION group: words that refer to action or activities.	*the hobby or favourite activity, the physical activities, cycles or walking, such action, online gaming, copy-paste, the plagiarism*	/	/	/

Table 4.12: Continued

The FALLACY group: words that indicate that something is either true or false.	*the facts or quotations, the wrong ethics, the truth*	/	/	
The CLASS group: words that are concerned with education.	*the assignment, the carrymark, the journals and articles, their study, their work*	/	/	/
The PAPERS group: words that refer to official documents.	*the documents, paper, the listed*		/	/
The STAGE group: words that refer to an aspect or part of something abstract.	*the platform,*		/	/
The RIM group: words that indicate a part of something.	*the boundry*		/	
The SIGN group: words that refer to a sign, proof, or symbol of something.	*the alphabet, the prove of world has change, short form*		/	/
The BORROW group: words that are concerned with getting something from a source.	*getting information*		/	
The SKILL group: words that refer to skill, experience, or an advantage that someone has regard to a particular area of activity.	*the skills they learned, communication skill, interaction skill*		/	/
The ADDICTION group: words that refer to mental or physical states or condition, usually negative ones.	*the addiction, addiction to the internet*		/	/
The PLEASURE group: words that are used to indicate that someone or something is pleasant or unpleasant.	*fun and happiness, fun and interesting application*		/	

Unlike the classification of the meaning groups of the emergent lexis to the right of ***of***, the meaning groups of the words immediately to the right of ***of*** can be seen to generally reduce over time. There were 33 meaning groups identified at Time 1, the number increases to 35 at Time 2 and later decreases to 29 at Time 3. This shows that over time the participants of CATMU were found to use a more restricted set of lexis.

Only a few of the meaning groups identified are present consistently at all three times of data collection. These meaning groups are, the ISSUE group, the CONSTRUCTION group, the GANG group, the ARCHITECT group, the EPISODE group, the FRAGRANCE group, the ERA group, the DABBLE group, the RELTIONSHIP group, the RESOURCES group, the COMMUNICATION group, the

REQUIREMENT group, the FEAR group, the PLACE group, the TAPE group, the PART group, the SCIENCE group, the TELEVISION group, the MESSAGE group, the TIME group, the MACHINE group, the RESIGNATION group, and the CLASS group.

Four of the meaning groups identified are only found at Time 1 and Time 2 of CATMU; these are the ANNOUNCEMENT group, the WANDER group, the INDEPENDENCE group, and the FALLACY group. Five of the meaning groups identified can only be found at Time 2 and Time 3 of CATMU; these are the PAPERS group, the STAGE group, the SIGN group, the SKILL group, and the ADDICTION group. Only one meaning group can be found at both Time 1 and Time 2; this is the DESIRE group. Four of the meaning groups can be found at only Time 1 of CATMU; these are the SHORTGE group, the SUPPORT group, the DOZE group and the ATTEMPT group. Last but not least, three of the meaning groups can be found at only Time 2 of CATMU, these are the RIM group, the BORROW group, and the PLEASURE group.

It should be noted that assigning meaning groups to the words concurrent to the word ***of*** is not a straightforward task due to the nature of the corpus as a learner corpus. Therefore, there were a few instances in which the meaning groups of the words were assigned not according to the pattern suggested in Francis, Hunston and Manning's Collins Cobuild Grammar Patterns. Instead, it was used as a guide to assign meaning groups to the emergent lexis. An example of this is the RELATIONSHIP group found for the words immediately to the right of ***of*** at Time 1 to Time 3 of CATMU. As recorded in pattern grammar, this meaning group is associated with the pattern **n *with* n** but not with the pattern **n *of* n.** However, it was found used with the word ***of*** in CATMU. Therefore, this meaning group is taken as an innovative use of language by the participants of CATMU. Other meaning groups which are similar are listed as

follows: the PAPERS group, the SKILL group, the ADDICTION group, the RESOURCES group, the PLEASURE group, the COMMUNICATION group, the INDEPENDENCE group, the REQUIREMENT group, the FEAR group, the PLACE group, the TAPE group, the DESIRE group, the PART group, the SCIENCE group, the TELEVISION group, the MESSAGE group, the TIME group, the MACHINE group, the RESIGNATION group, the FALLACY group, and the CLASS group.

4.6 Conclusion

From the corpus study of the word ***of***, a few main observations could be made. The first is that, there are a total of nine patterns identified for the word ***of*** in CATMU at Time 1. The number of patterns identified for the word ***of*** in CATMU at Time 2 is the lowest in which only seven patterns were identified, whereby two patterns (**with n *of* n** and **BE *of* n**) were not found at Time 2. At Time 3, the number of patterns identified for the word ***of*** in CATMU increases to eight in which the pattern **with n *of* n** resurfaced at Time 3.

The pattern **n *of* n** is found to be one of the dominating patterns used for the word ***of***. This may be due to the nature of the writing task for CATMU, which is argumentative writing, and is considered to be a form of academic writing. The nature of formal academic writing involves high use of nouns and noun phrase (Biber & Gray, 2013, see Chapter 6). The high percentage of the pattern **n *of* n** identified in CATMU indicates that the participants of CATMU are exhibiting features of formal academic writing in their essays.

Another observation that could be made for the corpus study of ***of*** is the changing preference of the sense of ***of*** identified in CATMU. At Time 1 and Time 2, the sense of

of with the highest percentage of use in CATMU is when ***of*** is used to quantify the nouns coming right after the word ***of***. However, the preference changes at Time 3 when the sense of ***of*** with the highest frequency of use is when ***of*** is used to relate two ideas to have the words after ***of*** to give definition or more information on the word before ***of***. The reason behind the changes is inconclusive, since the syllabus of the English Proficiency class did not focus specifically on the use of the word ***of***. However, participants were exposed to formal academic writing, especially argumentative writing, in their syllabus. Therefore, it could be speculated that the changes may be due to the participants adjusting themselves through the repeated use of the word ***of*** to match their communicative needs.

Another interesting finding that should be pointed out from the corpus study of ***of*** regarding the fixed phrases associated with the word ***of***. It was found that although some of the fixed phrases can be found in varying structures (e.g., **a lot *of*, in front *of***), the meaning associated with the structures remain the same. For example, the structure of both instances of *in front* ***of*** in (a) and (b) are different, however, its use in the sentence is similar.

a) The more you sit **in front *of*** your computer, lesser the time you would give to your studies. (B007b)
b) They just sit **infront *of*** the computer and spent more than one hour or maybe 24/7 hour on internet or online gaming. (B002a)

Thus, although some changes are identified with the structures of the fixed phrases, the way it is used will still be the same. This suggests that participants were not fixed on the structure of the fixed phrases but more towards the conveyance of meaning.

Last but not least, for the analysis of the words concurrent to the word ***of***, it was found that the meaning groups of the words to the left of ***of*** increases, while the

meaning groups of the words to the right of ***of*** decreases. This contradicting finding of the word ***of*** signifies the complexity of the language (see also, Larsen-Freeman, 2006; Chau, 2015) as used by the learners.

The study of the word ***of*** has resulted in a few interesting observations on the use of language by learners over time. The next chapter discusses specifically on the word ***to***, similar findings as with the word ***of*** could be found which shows the complexity of language and its development over time.

CHAPTER 5: ANOTHER CORPUS STUDY: THE PREPOSITION *TO*

5.0 Introduction

This chapter presents another corpus study which focuses on the analysis of the preposition ***to*** in CATMU. The frequency of the preposition ***to*** is first presented in this chapter including the changes of the frequency observed over time. Next, the patterns of use of the preposition ***to*** is presented in the next section along with its frequency and the changes in the frequency observed over time. The use of the preposition ***to*** in phrases is discussed in the next section. This is then followed by a discussion on the emergent lexis found concurrent to the preposition ***to***.

5.1 Frequency information of *to*

The word ***to*** occurs as the 2nd high frequency word in CATMU for all three times of data collection. Since the occurrences recorded also include the instances in which ***to*** is used in infinitive, the preposition ***to*** is then identified manually through the analysis of the concordance lines with ***to*** as the keyword. The frequency information of the preposition ***to*** in CATMU can be seen in Table 5.1 below.

Table 5.1: Frequency information of the preposition *to* in CATMU

Time	Frequency	%
Time 1	606	1.71
Time 2	685	1.57
Time 3	779	1.83

From table 5.1, it can be seen that the percentage of use of the preposition ***to*** generally increases over time. However, there is a significant decrease to the percentage of use at Time 2. This suggests that the word ***to*** is used less as a preposition at Time 2. The raison d'être for this phenomenon is unclear, though it could be assumed that the

participants may have been using the word ***to*** to express infinitive more at Time 2 instead of using it as a preposition. To see how differently the preposition ***to*** is used over time in CATMU, both the patterns of use and the senses of the preposition ***to*** is identified and analysed.

5.2 The patterns of use of the preposition *to*

Similar to the study of the word ***of***, in order to find the patterns of use for the preposition ***to***, the words concurrent to the word ***to*** were analysed and categorized according to its word class. It should be noted here that only instances of***to***functioning as a preposition were taken as item of analysis. The analysis shows that the preposition ***to*** can occur in several different patterns. Similar to the word ***of***, the distribution of the patterns changes over time. This may be due to the different variety of words used by the participants over time. Table 5.2 shows the distribution of the patterns found for the preposition ***to*** in CATMU over time.

Table 5.2: Frequency information of the patterns of use of *to* in CATMU

Patterns	T1		T2		T3	
	Freq.	**%**	**Freq.**	**%**	**Freq.**	**%**
v n *to* n	276	45.54	299	43.65	351	45.06
v *to* n	94	15.51	133	19.42	159	20.41
n *to* n	44	7.26	47	6.86	44	5.65
adj*to* n	73	12.05	63	9.20	90	11.55
adv *to* n	17	2.81	22	3.21	20	2.57
v adj*to* n	3	0.49	13	1.90	8	1.02
BE n *to* n	19	3.14	22	3.21	18	2.31
v *to* adv	3	0.49	4	0.58	5	0.64
v *to* adj	3	0.49	2	0.29	8	1.02
n *to* adv	4	0.66	1	0.15	1	0.13
n *to* adj	2	0.33	1	0.15	4	0.51
BE *to* n	2	0.33	1	0.15	0	0
v adv*to* n	0	0	4	0.58	0	0
v n *to*adv	0	0	0	0	2	0.26
BE *to*adj	0	0	0	0	2	0.26
wh*to* adj	0	0	2	0.29	0	0
***to* n**	0	0	2	0.29	2	0.26
conj*to* n	0	0	2	0.29	3	0.39
others	15	2.48	8	1.17	12	1.54
Fixed Phrases	51	8.42	59	8.61	50	6.42
	606	100	685	100	779	100

As with the word ***of***, the category of others was added into the table to include the instances of ***to*** in which the sequences of the words did not fulfil the criteria of a pattern set for the study. These instances of ***to*** are not included in the analysis of the study.

The first pattern of ***to*** identified in the study is the pattern **v n *to* n**. This pattern is found when a verb followed by a noun precedes the word ***to*** which is then followed by a noun. Example of this pattern can be found in (1).

(1) Students cannot focus on their study and will lead them to failure. (B010a)
They will spread the information to others without knowing the information website. (B032a)
The student also use internet for get more information to their assignment or thesis. (G086a)

The pattern **v n *to* n** dominates the use of ***to*** as a preposition in all three instances of CATMU. At Time 1, the pattern **v n *to* n** occupies 45.54% of the corpus. It decreases to

a percentage of 43.65 of the corpus at Time 2. However, the pattern increases to occupy 45.06% of the corpus at Time 3.

The second pattern found in CATMU is the pattern **v *to* n.** This pattern occurs when the word ***to*** is found between a verb and a noun. The example of this pattern can be found in (2).

(2) Students who love to go library are adapt to a good surrounding because they will more appreciate what they are doing. (B003a)
For example, if students want to fine something they just need to go to internet and click google it. (C059a)
Besides that, they will surf to porn site, and try to do the things what they saw. (G094a)

At Time 1, the pattern **v *to* n** occupies 15.51% of the corpus. However, at Time 2, the percentage increases to 19.42% of the corpus and again increases slightly to occupy 20.41% of the corpus at Time 3.

The next pattern to be discussed is the pattern **n *to* n.** This pattern occurs when the preposition ***to*** is found in between two noun groups. The sample of this pattern can be seen in (3).

(3) Wherever, internet brings many benefit for our life, but still have more harm to our life today. (C047a)
The transformation of technology such as handphones which from basic phone to android phones in prevent really changed people same goes to other technology like internet. (G099a)
So, they do not have time to each other to spend time to holiday, communication, to sport and so on. (B031a)

The pattern **n *to* n** is the third most frequently occurring pattern for the preposition ***to*** at Time 1. It occupies 7.26% of the corpus at Time 1. The percentage decreases to occupy 6.86% of the corpus at Time 2 and further decreases to occupy 5.65% of the corpus at Time 3.

Another pattern that is found to decrease over time in the corpus is the pattern **adj *to* n**. This pattern is found when the preposition ***to*** is found in between an adjective and a noun group as shown in (4).

(4) There are no limit on internet, it is a way that is open to anybody and everybody. (B010a)
Next, the internet also are not good to healthy.(B031a)
Even internet is important to everyone but they will bring harm and good to student. (C062a)

At Time 1, the pattern **adj *to* n** is the second most frequently occurring pattern in the corpus. It occupies 12.05% of the corpus at Time 1 and decreases to occupy only 9.20% of the corpus at Time 2. It further increases to occupy only 11.55% of the corpus at Time 3.

The next pattern found in the corpus is the pattern **adv *to* n.** This is when an adverb is found before the preposition ***to*** which is then followed by a noun. An example of the pattern **adv *to* n** can be seen in (5).

(5) Internet was a need nowadays especially to students whather school student, IPTA and so on many which uses this internet. (C058a)
At the same time, it bring cons to our society and mostly to the young generation. (B010a)
First, student easy to interrupt because more to internet more than do the assignment. (C079a)

The pattern **adv *to* n** occupies 2.81% of the corpus at Time 1. The percentage increases to occupy 3.21% of the corpus at Time 2. The percentage decreases to occupy only 2.57% of the corpus at Time 3.

Next is the pattern **v adj *to* n.** This is when a verb and an adjective precedes the preposition ***to*** and is then followed by a noun group. This example can be seen in (6).

(6) Rumours can spread fast to public by internet. (B046a)
The light from the computer or a laptop bring harmful to student. (C076c)
That effect is about fokucing their in the class, come late to the class, feeling sleepy in the class and more. (C057c)

At Time 1, the pattern **v adj *to* n** occupies 0.49% of CATMU. However, the percentage increases to occupy 1.90% of CATMU at Time 2 and decreases slightly to occupy 1.02% of CATMU at Time 3.

The pattern **BE n *to* n** is found when a BE verb is followed by a noun before the preposition ***to*** and a noun group after. An example of the pattern can be found in (7).

(7) I agree the internet to be a good to student because internet can give student forget any information to complete any assignment. (G103a)
Internet is a convenience to people and the one who has not intenet is something rare in community. (B003a)
It can be harm to students if there is no restriction to improper source. (B034a)

The pattern occupies 3.14% of CATMU at Time 1. The percentage increases slightly to 3.21% at Time 2 but decreases to 2.31% at Time 3. Generally, it could be seen that the percentage of use of the pattern decreases over time.

The patterns **v *to* adv** and **v *to* adj**are also found in CATMU. Both the patterns are found when a verb group precedes the word ***to*** and followed by an adverb group as in (8) and an adjective group as in (9) respectively.

(8) Depending to much in internet could make a person become zombie when there is no internet connection. (B026a)
Nowadays, many people are expected to increasingly sophisticated technology. (B027a)

(9) Lastly, student have to intelligent to manage time and control theirself. (B044a)
For example, if students want to fine something they just need to go to internet and click google it. (C059a)

At Time 1, both the patterns occupy 0.49% of CATMU and both are found to generally increase slightly over time. The pattern **v *to* adv** is found to increase slightly to 0.58% of CATMU at Time 2 and further increases to 0.64% at Time 3. The pattern **v**

***to* adj** however, decreases to occupy only 0.29% of CATMU at Time 2 but increases to 1.02% of CATMU at Time 3.

The next patterns are the patterns **n *to* adv** and **n *to* adj**. These patterns are similar to the patterns **v *to* adv** and **v *to* adj**. Both the patterns are found when a noun group precedes the word ***to*** and followed by either an adverb group as in (10) or an adjective group as in (11).

(10) The scammer sometime aim at students to easily get the students money in wrong way. (B030a)
When the student to much love the internet it make their relationship with family and friends become worse. (Bo43a)
Other problem they will get I when the eyes to much expose with brightness, the eyes turn to sicks. (B025c)

(11) The effect to used internet is student can be a lazy if to used in more to can student to lazy to study. (C068a)
It is because, they choise to fun besides to do their work. (G083c)

The pattern **n *to* adv** is found to decrease over time. At Time 1, the pattern is found to occupy 0.66% of CATMU and decreases to only occupy 0.13% of CATMU at Time 3. The pattern **n *to* adj** is found to be at 0.33% at Time 1 and decreases to 0.15% at Time 2 but increases to 0.51% at Time 3.

The next pattern, the pattern **BE *to* n**, is only found at Time 1 and Time 2 of CATMU. The pattern is found when a BE verb precedes the word ***to*** and followed by a noun group as in (12).

(12) Eventhough, there are a lot of advantages that we can get by using the internet, people should also be aware of how harmful it can be to people especially to students. (B007a)

The pattern **BE *to* n** is only found at Time 1 and Time 2 of CATMU. At Time 1, the pattern is only found to occupy 0.33% of CATMU and decreases to 0.15% at Time 2 before completely disappears at Time 3.

Both the patterns **v adv *to* n** and **wh *to* adj** are found only at Time 2 of CATMU. The pattern **v adv *to* n** is found when a verb followed by an adverb precedes ***to*** and followed by a noun group as in (13). It is found to occupy only 0.58% of CATMU at Time 2. The pattern **wh *to* adj** is found when a wh- clause precedes the word ***to*** followed by an adjective group as in (14). The pattern is only found at Time 2 occupying only 0.29% of CATMU.

(13) This an incredible tools are spread widely to the students world or lifestyle. (B034b)
It is make easily to us doing payment or transaction, usually for people far away from bank and not enough time to go the bank. (B018b)

(14) For this we can conclude social medium give negative effect for students if student not knows how to private their information in internet global. (B022b)
People should start think about how to safe this situation to prevent it became worst. (B010b)

The patterns **v n *to* adv** and **BE *to* adj** are found only at Time 3 of CATMU. The pattern **v n *to* adv** is found when a verb followed by a noun precedes the word ***to*** followed by an adverb as in (15). The pattern **BE *to* adj** is found when a BE verb precedes the word ***to*** followed by an adjective as in (16). Both the patterns occupy only 0.26% of CATMU at Time 3 respectively.

(15) Social media always have something that can attract people to always used them. (B032a)
So we need to thing a carefully to all our children and remain ourself to not uploaded our picture that can attract people attention. (C060b)
This is tend students to frequently used internet because it brings more good than harm it. (G095c)

(16) Parents was to addicted about show off their update life, they want their child to become more open with the technology, they spend their money to buy the gadgets include the internet such as table to their child, so with that, their child can use that tools everywhere. (B028c)
But they have different marks and the highest marks is to students that cheat in their work. (B008b)

The last two patterns are the patterns ***to*** **n** and **conj** ***to*** **n**. These patterns are found both at Time 2 and Time 3 of CATMU, in which there is no occurrence of the patterns found at Time 1. The pattern ***to*** **n** is identified when a noun group is found immediately following ***to*** as in the example (17). The pattern occupies 0.29% of CATMU at Time 2 and decreases slightly to occupy only 0.26% of CATMU at Time 3.

(17) For example to student. (B001b)
As we know, the Malaysian student always want to be up to date person, to they will waste their money to buy a very good package internet to make sure they can surf faster. (G098b)

The pattern **conj** ***to*** **n** is found when a conjunction comes before the word ***to*** which is then followed by a noun group as in (18). The pattern is found to occupy 0.29% of CATMU at Time 2 and increases slightly to occupy 0.39% of CATMU at Time 3.

(18) The student become lazy and lack of time for to their study. (B035b)
Sometimes also, they are like to communicate on the internet than to the people. (B020b)

All other sequences of the word ***to*** as a preposition that does not meet the criteria set for patterns in the study are categorized into "others" in the table.

5.3 Fixed Phrases of *to* found in CATMU

The preposition ***to*** can also be found occurring in fixed phrases. However, unlike the word ***of***, the use of ***to*** in phrases is found to be relatively low in CATMU. At Time 1, the use of ***to*** found in phrases occupies only 8.42% of CATMU. The number increases slightly to 8.61% at Time 2 but decreases to 6.42% of CATMU at Time 3. A few fixed phrases were identified in CATMU but only five phrases that can be found to occur in CATMU frequently over time. The quantitative measures of the frequent phrases found in CATMU can be seen in Table 5.3.

Table 5.3 Quantitative measures of the use of *to* in phrases in CATMU

Phrases	T1		T2		T3	
	Freq.	**%**	**Freq.**	**%**	**Freq.**	**%**
due ***to***	18	3.15	18	2.70	10	1.36
face ***to*** *face*	15	2.27	24	3.45	28	3.79
compared ***to***	7	1.22	7	1.05	8	1.08
relate ***to***	8	1.57	6	0.90	3	0.41
up ***to*** *date*	3	0.35	4	0.60	1	0.12

due ***to***

The phrase *due* ***to*** is the most frequent phrase where the word ***to*** occurs in. At Time 1 and Time 2, the phrase is found in 18 lines of the corpus. However, at Time 3, the phrase is only found in 10 lines of the corpus. There is no variation of the phrase found in the corpus in terms of structure. Example of the use of the phrase in sentence from the corpus can be seen in (19).

(19) Not just that, mostly rape crime is come from teenagers, they doing this due to watch the porn video from Internet. (B016a)
This happens due to emergence of social website like Facebook, instagram, twitter and so on. (C058a)
This is due to the fact that by using social media such as whatapps, Facebook, email and so on, we can communicate with our friends easily. (G110a)

The use of the phrase *due* ***to*** in the corpus is mainly as a connector to show the root cause of something that happened. In this case, it has a similar use with the phrase *because* ***of*** as discussed in Chapter 4. The Collins dictionary gives two senses of the phrase *due* ***to,*** the first is to show that something happens or exists as a direct result of another thing, and the second is to introduce the reason for something happening. In the case of the phrase *due* ***to*** as used in CATMU, it mainly corresponds to the first sense of *due* ***to*** provided in the Collins dictionary.

Both the Oxford and Macmillan dictionary only give one sense of *due* ***to*** in the dictionary. Both the Oxford and Macmillan dictionary define *due* ***to*** as being used to show that something is caused by some other thing. In terms of the use of the phrase *due*

to in the corpus, it is similar to the senses given by both the Oxford and Macmillan dictionaries.

*face **to** face*

The phrase *face **to** face* is the second most frequent phrase where the word ***to*** occurs found in the corpus. It is used to describe the instance where a person meets another person directly. This phrase is found 13 times in the corpus at Time 1, which is also 2.27 of the phrases in the corpus. However, the number increases highly at Time 2 with 23 lines found in the corpus and occupying 3.45% of the corpus. The number further increases at Time 3 to 28 lines and occupying 3.79% of the corpus. Example of the sentences with the phrase can be found in (20).

(20) Students will feels tress when chat with people in face to face especially facing with adults. (B016a)
There are many benefits when they do a lot things with friend face to face beyond talk on facebook. (G094a)
This is a great disadvantages of internet as this reduce face to face communication among the students. (B019b)

The Macmillan dictionary defines *face **to** face* as being in a situation where a person is meeting and talking to another person directly. In the Oxford dictionary, the phrase *face **to** face* has two senses and can be used as either an adjective or an adverb. When used as an adjective, it is defined as involving people who are close together and looking at each other. On the other hand, as an adverb, it is defined as in a way that involves people who are close together and looking at each other.

In the case of the use of the phrase *face **to** face* in the corpus, the sense found in the Collins dictionary can be considered as the most befitting one. The Collins dictionary registered *face **to** face* as a phrase and being defined as meeting and talking or looking at a person directly.

*compared **to***

The phrase *compared **to*** is found to occur in two different structures in the corpus, mainly *compare **to*** and *compared **to***. However, the distribution of these structures changes over time. The frequency distribution of the structure can be found in Table 5.4 below.

Table 5.4: Frequency distribution of different structures of *compared to* found in CATMU

*compared **to***	**T1**		**T2**		**T3**	
	Freq.	**%**	**Freq.**	**%**	**Freq.**	**%**
*compare **to***	4	57.14	3	42.86	3	37.5
*compared **to***	3	42.86	4	57.14	5	62.5

From the table above, it can be seen that over time, the structure *compared **to*** is being used more in the corpus. However, in terms of the use of the phrase both structures refer to the use of the phrase to make a contrast between two situations. Examples of the use of ***to*** in this phrase can be seen in (21).

(21) It is totally free if compared to watching 50 Ringgit for just a 45 minutes class. (B014a)
Furthermore, by using the internet, we can just print out the article needed compare to buy a book that have an expensive prices for our references. (G110a)

The Collins dictionary registered the sense of *compared **to*** as used in the corpus as the second sense which is when the phrase is used to contrast two different situations on things. Similar to that, the Oxford dictionary also registered this use of *compare **to*** as the second sense and defined as to be similar to somebody or something else, either better or worse. However, the sense provided by the Macmillan dictionary for the use of the phrase *compared **to*** in the corpus is the most befitting one. It is defined as to consider how things or people are similar and how they are different.

*up **to** date*

The phrase *up **to** date* has the lowest percentage of use in the corpus. At Time 1, the phrase is only found in 0.35% of the corpus. However, the use increases to occupy 0.61% of the corpus at Time 2, but later decreases to 0.41% at Time 3. Examples of the phrases occurring inside the corpus can be seen in (22).

(22) This is because, almost all up to date sport score are probably the most popular the internet. (B035a)
The popular social media like facebook, instagram, twitter and so on may attract student to keep up-to-date every second of day. (G097b)
The information from the internet is renewed and up to date. (G092c)

The Macmillan dictionary has two senses for the phrase *up **to** date*. The senses that correspond most to the use of the phrase in the corpus is the first sense which is defined as including the most recent news and information. The Oxford dictionary also has two senses for the fixed phrase, however the second sense registered in the Oxford is the most befitting one. It is when the phrase is used to describe someone or something having or including the most recent information. The Collins dictionary also placed the same sense as the second sense in which the phrase is defined as having the latest information about something.

Other than the perceived difference in the frequency of the patterns of use of ***to***, the senses of the preposition ***to*** used in CATMU also change. The next section discusses the senses of the preposition ***to*** found in CATMU.

5.4 Senses of *to* found in CATMU

There are a total of seven senses of ***to*** identified in CATMU over time. The senses identified can be found in two or more different patterns of ***to*** identified. The senses of ***to*** found used in CATMU and its quantitative measures are provided in Table 5.5.

Table 5.5: Quantitative measures of the senses of *to* found in CATMU

Sense	Use	T1		T2		T3	
		Freq	%	Freq	%	Freq	%
Sense 1	Used to show a means of action that involves transfer of an item in which the recipient receives something.	291	48.02	294	42.92	330	42.35
Sense 2	Used to show the recipient of an action, feeling or a situation.	60	9.90	111	16.20	131	16.82
Sense 3	Used to show something that is directed towards a place, a point or a goal or a situation.	125	20.63	128	18.69	140	17.97
Sense 4	Used to show attachment of something to something else	5	0.83	18	2.63	9	1.16
Sense 5	Used to show changes and transition	6	0.99	9	1.31	19	2.44
Sense 6	Used to show relation either through comparison, attitude or reaction, opinion or feeling, and quality towards something.	113	18.64	119	17.37	150	19.26
Sense 7	Used to show a period of time	6	0.99	6	0.88	0	0
Total		606	100	685	100	779	100

From Table 5.5 above, it can be seen that Sense 1 remains steadily as the most frequently used sense of ***to*** identified in CATMU. Similar to the word ***of***, the frequency of the senses of ***to*** used in CATMU also changes over time. However, for the preposition ***to***, instead of changing preference of use, the senses of ***to*** is found to decrease over time. For example, sense 7, in which the word ***to*** is used to show period of time, is found to decrease over time, and is found to diminish altogether at Time 3. This suggests that the use of the senses of ***to*** is becoming more and more restricted over time in CATMU.

Just like the identification of the senses for the word ***of***, the senses of the preposition ***to*** were identified based on three different advanced learner's dictionaries available to the public (refer to chapter 4 for more details). At the same time, the analysis of the senses of each pattern of use of ***to*** found that they exhibit different senses of ***to*** depending on the words found together with ***to***.

5.4.1 The pattern **v n *to* n** in CATMU

Analysis of the senses of ***to*** for the patterns **v n *to* n** which is one of the major pattern found for the preposition ***to*** in CATMU found that there is a total of six senses of ***to*** that could be identified in CATMU. The quantitative measures of the senses of ***to*** for the pattern **v n *to* n** as used in CATMU over time are presented in Table 5.6 below.

Table 5.6: Quantitative measures of the senses of *to* for the pattern v n *to* n over time in CATMU

v n *to* n	Use	T1		T2		T3	
		Freq.	%	Freq.	%	Freq.	%
Sense 1 *(Sense 1)*	Used to show a means of action that involves transfer of an item in which the recipient receives something.	253	91.67	258	86.29	295	84.04
Sense 2 *(Sense 2)*	Used to show the recipient of an action, feeling or a situation.	5	1.81	12	4.01	20	5.70
Sense 3 *(Sense 3)*	Used to show something that is directed towards a place, a point or a goal or a situation.	9	3.26	22	7.36	22	6.27
Sense 4 *(Sense 4)*	Used to show attachment of something to something else.	0	0	2	0.67	2	0.57
Sense 5 *(Sense 5)*	Used to show changes and transition.	3	1.09	1	0.33	2	0.57
Sense 6 *(Sense 6)*	Used to show relation either through comparison, attitude or reaction, opinion or feeling, and quality towards something.	6	2.17	4	1.34	10	2.85
Total		276	100	299	100	351	100

*the senses in this table correspond to the senses stated in the parentheses in Table 5.5

Sense 1

Sense 1 for the pattern **v n *to*n** refer to the use of the preposition ***to***when it is used to show a means of action that involves the transfer of an item in which the recipient receives something. The use of this sense is dominantly exhibited with the word *brings*, in the sequence of *brings*+**n**+***to***+**n**. This is used to express that the recipient of the word ***to*** will receive something due to the action (*bring*) mentioned in the earlier part of the sequence. A few examples of the use of Sense 1 for the pattern **v n *to* n** in CATMU can be seen in (23).

(23) The internet also give an advantage to student to do an assignment. (B002a)
Eventhough, the internet not also bring a good to student, but also bring more harm to students. (B031a)
This is because while the users of internet sending electronic messages to one another, the electronic messages can be easily traced, getting to know who is taking to whom and what are the electronic messages about. (B006a)

In this sense of ***to*** identified, it can be said that the noun right after the word ***to*** receives something as a result of the action from the verb in the pattern. From the example given above, the sequence "*give an advantage **to** student*" shows how the noun *student* receives *an advantage* as a result of the verb *give* in front of the noun *advantage* in the phrase. This goes to the other examples given.

Sense 2

Sense 2 for the pattern **v n *to* n** refers to the use of the preposition ***to*** in order to show the recipient of either an action, a feeling or a situation. The example of sense 2 from the corpus can be seen in (24).

(24) In social media especially many student using it as a tool to focus their dissatisfied to other students away mostly can cause stress to student and more arguing happen. (C048a)
With the point it is not waste the time to students and they can stay the another place for sending the assignment. (G104c)
This thing are not affected if they know how to manage their time, spending money to the right thing and do not ignore their responsility as a students. (B003c)

Different from sense 1, the verb involved in the pattern does not result in the recipient having an item. Instead, the verb in the pattern leads to the consequence that is directed to something.

Sense 3

Sense 3 for the pattern **v n *to* n** refers to the use of ***to*** when it is used to show something that is directed towards a place, a point or a goal or a situation. The sample of the sentences which exemplify Sense 3 for the pattern **v n *to* n** is shown in (25).

(25) A students might even fall a prey to the gambling site. (G094a)
The power of internet can bring students to a wrong way of their life. (B010c)
This causes them to become addicted to games and withdraw themselves, this will cause their academic grades to drop and can pose a risk to the student's future. (C080b)

Sense 4

Sense 4 for the pattern **v n *to* n** is found at Time 2 and 3 of CATMU. This is when the preposition ***to*** is used to show attachment of something to something else. Examples of the sentences exemplifying this sense of ***to*** for the pattern **v n *to* n** can be seen in (26).

(26) By using internet, students easy to connect each other to discussion or communicate with other. (B039b)
Internet is a means of connecting computer to any other computer anywhere in the world via dedicated routers and servers. (C068c)

Sense 5

Sense 5 for the pattern **v n *to* n** is the use of ***to*** when it is used to show changes and transition. A few samples of this sense of ***to*** as exemplified in the pattern can be seen in (27).

(27) Basically, people use this platform to do a criminal because it can hide the criminal identity or change it to others identity and avoid from be tracked.(C075a)
This resulting the negative effect to student brain development and therefore their studies.(C048b)
The technologies like internet was probably change our life to more complex, easy to have knowledge and will do the something to more fast.(C047c)

Sense 6

Sense 6 for the pattern**v n *to* n** is when the preposition ***to*** is used to show relation, either through comparison, attitude or reaction, opinion or feeling, and quality towards something. The examples of this sense of ***to*** that can be found in the pattern **v n *to* n** can be seen in (28).

(28) Thirdly, the internet somehow like drugs and alcohol to students.(C051a)
Nowadays, the internet is like an oxygen to this new generations.(B034a)
They think that conversation are just nothing and do not being any benefits to them.(G101c)

The senses of ***to*** found used for the pattern **v n *to* n** increases over time as more words were used by the participants in CATMU for the argumentative writing task. From Time 1 to Time 3, sense 1 for the pattern **v n *to*n** continues to dominate the use of the preposition ***to*** in CATMU. At Time 1, Sense 1 for the pattern **v n *to* n** occupies the pattern with the percentage of 91.67. However, the percentage of use decreases at Time 2 to 86.29 and further decreases to 84.04 at Time. Despite the decreasing percentage of use of Sense 1 for the pattern **v n *to* n**, the use of Sense 1 still dominates the use of the preposition ***to*** for the pattern **v n *to* n**. This means that, for the pattern **v n *to* n**, the preposition ***to*** is mainly used to show transfer of an item through a means of action.

It could also be observed that over time, a new sense of ***to*** was identified for the pattern **v n *to* n**. Sense 4 for the pattern **v n *to* n** was initially not identified at Time 1 of CATMU. However, at both Time 2 and Time 3 of CATMU, it starts to appear with the use of more words. This could be highly due to the increasing variation of the words used with the preposition ***to*** which leads to more sense of ***to*** being identified in CATMU. As with the observation in the corpus study of ***of***, other patterns of ***to*** also show different senses of ***to***used. The next section discusses the senses of ***to*** found with

the second highest frequency pattern of the preposition ***to*** identified in CATMU, the pattern **v *to* n**

5.4.2 The pattern **v *to* n** in CATMU

Analysis of the pattern **v *to* n** for the senses found four senses of ***to***used with the pattern. All of the senses identified for the pattern **v *to* n** were also found being used with the pattern **v n *to* n.** The changes in the use of the senses for the pattern **v *to* n** are summarized in Table 5.7 below.

Table 5.7: Quantitative measures of the senses of *to* for the pattern v *to* n over time in CATMU

v *to* n	**Use**	**T1**		**T2**		**T3**	
		Freq.	**%**	**Freq.**	**%**	**Freq.**	**%**
Sense 1 *(Sense 2)*	Used to show the recipient of an action, feeling or a situation.	30	31.91	52	39..09	63	39.62
Sense 2 *(Sense 3)*	Used to show something that is directed towards a place, a point or a goal or a situation.	61	64.89	57	42.86	73	45.91
Sense 3 *(Sense 4)*	Used to show attachment of something to something else.	3	3.20	14	10.53	6	3.77
Sense 4 *(Sense 5)*	Used to show changes and transition.	0	0	10	7.52	17	10.70
Total		94	100	133	100	159	100

*the senses in this table correspond to the senses stated in the parentheses in Table 5.5

Sense 1

Sense 1 for the pattern **v *to* n** refers to the use the preposition ***to*** when it is used to show the recipient of an action, feeling or a situation. This sense of ***to*** is also found as Sense 2 for the pattern **v n *to* n.** An example of the use of this sense of ***to*** for the pattern **v *to* n** can be found in (29).

(29) Another bad of online game is, they are not prefer to outside exercise for healthy life such as playing football, badminton, squash and more. (B025a)
The impact, students are being negative thinking about the things especially when the relating to the nation and country itself.(B017a)
Students who love to go library are adapt to a good surrounding because they will more appreciate what they are doing.(B003a)

Sense 2

Sense 2 for the pattern **v *to* n** refers to the use of the preposition ***to*** when it is used to show something that is directed towards a place, a point or a goal, or a situation. This sense of ***to*** can also be found in the pattern **v n *to* n** as Sense 3. Examples of this sense for the pattern **v *to*n** can be found in (30).

(30) In addition, excessive internet use can mean that some young people hardly talk to their families because they are always on the computer.(B037a)
Obviously, the more you sit in front of your computer, lesser the time you would give to your studies.(B007b)
Actually, internet not good for everyone because they more focus to internet in life.(C079c)

Sense 3

Sense 3 for the pattern **v *to* n** refers to the use of ***to*** when it is used to show attachment of something to something else. This is also similar to Sense 4 of ***to*** for the pattern **v n *to* n**. Examples of this sense of ***to*** for the pattern **v *to* n** can be found in (31).

(31) This Era, Internet is important thing to all of people in the world to serve information and connect to other people from long distance.(C060a)
However, all these advantages of connecting to the internet for entertainment purpose may become the disadvantages of the internet if students misused the internet.(B006b)
Social media such as Facebook, whatsapp, Wechat, and Skype are some of the example where the people easily connect to each other. (B013c)

Sense 4

Sense 4 for the pattern **v *to* n** refers to the use of the preposition ***to*** when it is used to show changes and transition. This is also similar to Sense 5 of the preposition ***to*** found for the pattern **v n *to* n.** Examples of the use of Sense 4 for the pattern **v *to*n** can be found in (32).

(32) The internet has been around us ever since the 20th century and it has grown to a huge network with a wide array of information available to us any time we log on to the internet. (C080b)
Internet has been turned to first place that students should have it to get information, while students have a place that surely get true information from library. (C065b)
However, that good effect will be change to harm effect to student if some student fail or do not know to manage use the internet with well or good.(G090c)

From Table 5.7 above, it can be said that Sense 2 for the pattern **v *to* n** is the dominant use for ***to*** in this pattern. At Time 1, the use of Sense 2 occupies 64.89% of the pattern **v *to* n**, however, the percentage of use decreases to 42.86% at Time 2 and later increases slightly to 45.91% at Time 3. Although the percentage of use for Sense 2 decreases over time, it maintains as the sense of ***to***with the highest percentage of use. This means that, the preposition ***to*** in the pattern **v *to* n** is mainly used to show something that is directed towards a place, a point or a goal, or a situation. The decrease in the percentage of use for Sense 2 may be due to the emergence of a new sense of ***to*** found at Time 2 and Time 3 for the pattern **v *to* n**. Sense 4, which is when ***to*** is used to show changes and transition, was initially not present at Time 1 of CATMU. However, it was identified at both Time 2 and Time 3 of the corpus with an increasing percentage of use. The identification of a new sense of ***to*** identified for the pattern **v *to* n** may be due to the increasing variety of words used concurrent to the words ***to***.

5.4.3 The pattern **n *to* n** in CATMU

The analysis of the pattern **n *to* n** found a total of five senses of ***to***used with the pattern. Most of the senses identified in this pattern can also be found both in the pattern **v n *to* n** and **v *to* n**. Table 5.8 shows the distribution of the senses found for the pattern **n *to* n** in CATMU.

Table 5.8: Quantitative measures of the senses of *to* for the pattern n *to* n over time in CATMU

n *to* n	**Use**	**T1**		**T2**		**T3**	
		Freq.	**%**	**Freq.**	**%**	**Freq.**	**%**
Sense 1 *(Sense 3)*	Used to show something that is directed towards a place, a point or a goal or a situation.	14	31.82	7	14.89	10	22.73
Sense 2 *(Sense 4)*	Used to show attachment of something to something else	3	4.55	0	0	0	0
Sense 3 *(Sense 5)*	Used to show changes and transition	2	4.55	4	8.51	4	9.09
Sense 4 *(Sense 6)*	Used to show relation either through comparison, attitude or reaction, opinion or feeling, and quality towards something.	21	47.73	31	65.96	30	68.18
Sense 5 *(Sense 7)*	Used to show a period of time	4	11.35	5	10.64	0	0
Total		44	100	47	100	44	100

*the senses in this table correspond to the senses stated in the parentheses in Table 5.5

Sense 1

Sense 1 for the pattern **n *to* n** refers to the use of the preposition ***to***to show something that is directed towards a place, a point or a goal, or a situation. This is also similar to Sense 3 for the pattern **v n *to* n** and Sense 2 for the pattern **v *to* n**. Examples of the use of this sense of ***to*** for the pattern **n *to* n** can be seen in (33).

(33) As students are still very young they need to learn their world through exposures to different environment and situations.(C071a)
Third problem that might face to students is addiction.(B010a)
It can be harm to students if there is no restriction to improper source.(B034a)

Sense 2

Sense 2 for the pattern **n *to* n** refers to the use of the preposition ***to***to show attachment of something to something else. This is also similar to Sense 4 for the pattern **v n *to* n** and Sense 3 for the pattern **v *to* n**. Examples of the use of this sense of ***to***for the pattern **n *to* n** can be seen in (34).

(34) The internet is like a network to networks wherr any computer can link up to information stored within it.(G103a)
The definition of internet; the global system of interconnected computer to any other computer anywhere in the world and exchange information. (B030a)

Sense 3

Sense 3 for the pattern **n *to* n** refers to the use of the preposition ***to*** show changes and transition. This is also similar to Sense 5 for the pattern **v n *to* n** and Sense 4 for the pattern **v *to* n**. Examples of the use of this sense for the pattern **n *to* n** can be seen in (35).

(35) The transformation of technology such as handphones which from basic phone to android phones in prevent really changed people same goes to other technology like internet.(G099a)
Besides that, we also can used paypal for transfered money from one account to other account in the same bank or others bank.(B018b)
The problem that faced by the students are increasing from year to year because of the fake information in the internet.(B013b)

Sense 4

Sense 4 for the pattern **n *to* n** refers to the use of the preposition ***to***to show relation either through comparison, attitude or reaction, opinion or feeling, and quality towards something. This sense is also similar to Sense 6 for the pattern **v n *to* n**. Examples of the sense used for the pattern **n *to* n** can be seen in (36).

(36) The word "internet" has becoming a common vocab to the society even for the child.(B005a)
Unfortunately, the law protect your right to privacy in this area.(B015b)
Absolutely different in this recent situation, internet looks as an oxygen to people more accurately to students.(B034b)

Sense 5

Sense 5 for the pattern **n *to* n** refers to the use of the preposition ***to*** to show a period of time. This sense of ***to*** is a new sense identified with the use of the preposition ***to*** in the pattern **n *to* n.** Examples of the use of Sense 5 for the pattern **n *to* n** can be seen in (37).

(37) For example, the students will play games on the gaming website online for 5 to 6 hours and do not talk to their friends or the family.(B020b)
They prefer to end the game even it take four to five hours to end it.(B030a)
I have seen a lot cases about students died while playing online game because they did not rest nor taking any meal for two to three days.(B014a)

From Table 5.8 presented above, it can be seen that for the pattern **n *to* n**, the preposition ***to*** is mainly used to show relation of two nouns either through comparison, attitude or reaction, opinion or feeling, and quality towards something. This is shown through the high frequency of use of Sense 4 for the pattern **n *to* n**. At Time 1, Sense 4 occupies 47.73% of CATMU, the number then increases to 65.96% at Time 2 and further increases to 68.18% at Time 3.

Another important observation that could be made for the senses of ***to*** for the pattern **n *to* n** is the decreasing use of the senses of ***to*** for the pattern **n *to* n**. For example, both the use of Sense 2 and Sense 5 for the pattern **n *to* n** shows decreasing use over time. The use of Sense 2 for the pattern **n *to*n** at Time 1 occupies 4.55% of the pattern **n *to* n**. However, at Time 2 and Time 3, Sense 2 was not identified within the pattern. This is also the same case for Sense 5. At Time 1, Sense 5 occupies 11.35% of the pattern **n *to***

n, however, the number decreases at Time 2 to 10.64% and was found to completely disappear at Time 3 from the pattern **n *to* n**.

5.4.4 The pattern **adj *to* n** in CATMU

The analysis of the pattern **adj *to* n** found a total of four sense of ***to*** used with the pattern. All of the sense identified in this pattern has been identified in all the previous patterns discussed. Table 5.9 shows the quantitative measurements of the senses identified for the pattern **adj *to* n**.

Table 5.9: Quantitative measures of the senses of *to* for the pattern adj *to* n over time in CATMU

adj *to* n	**Use**	**T1**		**T2**		**T3**	
		Freq.	**%**	**Freq.**	**%**	**Freq.**	**%**
Sense 1 *(Sense 2)*	Used to show the recipient of an action, feeling or a situation	18	24.66	27	42.86	19	21.11
Sense 2 *(Sense 3)*	Used to show something that is directed towards a place, a point or a goal or a situation	7	9.59	10	15.87	10	11.11
Sense 3 *(Sense 5)*	Used to show changes and transition	0	0	0	0	2	2.22
Sense 4 *(Sense 6)*	Used to show relation either through comparison, attitude or reaction, opinion or feeling, and quality towards something.	48	65.75	26	41.27	59	65.56
Total		73	100	63	100	90	100

*the senses in this table correspond to the senses stated in the parentheses in Table 5.5

Sense 1

Sense 1 for the pattern **adj *to* n** refers to the use of ***to*** to show the recipient of an action, feeling or a situation. This is similar to Sense 2 for the pattern **v n *to* n** and Sense 1 for the pattern **v *to* n**. Examples of this sense of ***to*** used for the pattern **adj *to* n** can be seen in (38).

(38) When students are addicted to games, they want concentrate much in their studies and it will results in getting low marks for their examinations.(B007a)
Some student can very addicted to social media than their studies. (B032a)
As we all know, people will over addicted to internet that can make them to sitting in front their computer for a long hours until ignore their daily routine like eating and doing some activities.(G100b)

Sense 2

Sense 2 for the pattern **adj *to* n** refers to the use of the preposition ***to*** to show something that is directed towards a place, a point or a goal, or a situation. This is also similar to Sense 3 for the pattern **v n *to* n**, Sense 2 for the pattern **v *to*n,** and Sense 1 for the pattern **n *to* n**. Examples of the use of this sense for the pattern **adj *to* n** can be seen in (39).

(39) Hence basically all students are exposed to the lovely stuff at least partially.(G093a)
Students who is still vulnerable is high tendency exposed to the addiction of internet. (G097c)
Therefore, young child may therefore easily exposed to the restricted component while using internet.(B005c)

Sense 3

Sense 3 for the pattern **adj *to* n** refers to the use of the preposition ***to*** to show changes and transition. This is similar to Sense 5 for the pattern **v n *to* n**, Sense 4 for the pattern **v *to* n**, and Sense 3 for the pattern **n *to* n**. An example of the use of this sense for the pattern **adj *to* n** can be seen in (40).

(40) Nowadays, the internet uses is world wide, and internet also be aa needs to people no matter whom, from younger to older people.(G098c)

Sense 4

Sense 4 for the pattern **adj *to* n** refers to the use of the preposition ***to***to show relation either through comparison, attitude or reaction, opinion or feeling, and quality towards something. This is also similar to Sense 6 for the pattern **v n *to* n** and Sense 4 for the pattern **n *to*n**. Examples of this sense used for the pattern **adj *to* n** can be seen in (41).

(41) Internet is important to us.(B045a)
Before the internet wide spread in the country, the situation is different to nowadays.(B008a)
The problem of bad information and news making is not unique to the internet, there are a lots of trashy magazines as well.(C081a)

The pattern **adj *to* n** exemplified different senses of ***to*** depending on the use of the words surrounding the preposition ***to***. However, from the analysis, it can be seen that the pattern **adj *to* n** is mainly used to show relation either through comparison, attitude or reaction, opinion or feeling, and quality towards something. This is observed through the high frequency of Sense 4 for the pattern **adj *to* n**. At Time 1, Sense 4 for the pattern **adj *to* n** occupies 66.22% of the pattern **adj *to* n**, however, the percentage decreases to 41.27% at Time 2 and later increases to 65.56% at Time 3.

Another notable observation for the analysis of the senses of ***to*** used for the pattern **adj *to* n**, is similar to the observation made for the pattern **n *to* n**. This include the increasing variety of the senses of ***to*** found for the pattern **adj *to* n**. For example, Sense 3 for the pattern **adj *to* n** was not found in the pattern at both Time 1 and Time 2. However, at Time 3, the use of Sense 3 for the pattern **adj *to* n** starts to emerge.

5.4.5 The pattern **adv *to* n** in CATMU

Analysis of the pattern **adv *to* n** in CATMU over time found only two senses of ***to*** being used for the pattern **adv *to* n**. The senses identified in this pattern have all been

identified in other patterns. The frequency information of the sense of ***to*** identified for the pattern **adv *to* n** can be seen in Table 5.10 below.

Table 5.10: Quantitative measures of the sense of *to* for the pattern adv *to* n over time in CATMU

adv *to* n	Use	T1		T2		T3	
		Freq.	%	Freq.	%	Freq.	%
Sense 1 *(Sense 6)*	Used to show relation either through comparison, attitude or reaction, opinion or feeling, and quality towards something.	11	64.71	21	95.45	17	85
Sense 2 *(Sense 3)*	Used to show something that is directed towards a place, a point or a goal or a situation	6	35.29	1	4.55	3	15
Total		17	100	22	100	20	100

*the senses in this table correspond to the senses stated in the parentheses in Table 5.5

Sense 1

Sense 1 for the pattern **adv *to* n** refers to the use of the preposition ***to***to show relation either through comparison, attitude or reaction, opinion or feeling, and quality towards something. This is also similar to Sense 6 for the pattern **v n *to* n**, Sense 4 for the pattern **n *to* n**, and also Sense 4 for the pattern **adj*to* n**. Examples of the use of Sense 1 for the pattern **adv *to* n** can be seen in (42).

(42) The internet also make our life become easier especially to business person, students, and others.(B043a)
At the same time, it bring cons to our society and mostly to the young generation.(B010a)
In other hand, they can't submit their assignment before the deadline because their timeis more to internet store.(B046a)

Sense 2

Sense 2 for the pattern **adv *to* n** refers to the use of the preposition ***to*** to show something that is directed towards a place, a point or a goal, or a situation. This use is also similar to the senses found in other patterns such as Sense 3 for the pattern **v n *to* n**, Sense 2 for the pattern **v *to* n**, Sense 1 for the pattern **n *to* n**, and Sense 2 for the pattern **adj *to* n**. Examples of the use of Sense 2 for the pattern **adv *to* n** can be seen in (43).

(43) They also can kill the time by checking the books that they needed online without going straight to the shops or just do the online order if the books are only have from other country.(G099a)
The relationships with friend also good because not communicate to each other and just to their own job.(B031b)
Nowadays, the internet user is not only to younger people but also to old people.(G098b)

From the frequency of use of the senses of ***to*** identified for the pattern **adv *to* n**, it can be said that the frequency of use for the senses of the preposition ***to*** for this pattern has no clear progression. It is observed that the use of Sense 1, which is the use of ***to*** to show relation towards something, dominates the use of ***to*** for the pattern **adj *to* n**. At Time 1, Sense 1 occupies 64.71% of the pattern, and it increases to 95.45% at Time 2. However, the percentage decreases to 85 at Time 3.

5.4.6 The pattern **BE n *to* n** in CATMU

Analysis of the pattern **BE n *to* n** in CATMU found three senses of ***to*** being used within the pattern. As with the previous pattern discussed, all the senses found for the pattern **BE n *to* n** has been identified in the previous patterns. The quantitative measure of the senses of ***to*** found for the pattern **BE n *to* n** in CATMU is presented in Table 5.11 below.

Table 5.11: Quantitative measures of the senses of *to* for the pattern BE n *to* n over time in CATMU

BE n *to* n	Use	T1		T2		T3	
		Freq.	%	Freq.	%	Freq.	%
Sense 1 *(Sense 6)*	Used to show relation either through comparison, attitude or reaction, opinion or feeling, and quality towards something.	9	47.37	14	63.64	17	94.44
Sense 2 *(Sense 2)*	Used to show the recipient of an action, feeling or a situation	3	15.79	4	18.18	1	5.56
Sense 3 *(Sense 3)*	Used to show something that is directed towards a place, a point or a goal, or a situation	7	36.84	4	18.18	0	0
Total		19	100	22	100	18	100

*the senses in this table correspond to the senses stated in the parentheses in Table 4.6

Sense 1

Sense 1 for the pattern **BE n *to* n** refers to the use of the preposition ***to*** to show relation either through comparison, attitude or reaction, opinion or feeling, and quality towards something. This is also similar to the senses identified in the previous patterns, for example Sense 6 for the pattern **v n *to* n**, Sense 4 for the pattern **n *to* n**, Sense 4 for the pattern **adj *to* n**, and Sense 1 for the pattern **adv *to* n**. Examples of this sense used in the pattern **BE n *to* n** can be found in (44).

(44) The internet might have disadvantage that may be harm to student if the students unable to use it wisely.(C049a)
Nowadays, the internet is a very important things to people especially student.(C070b)
It is a nightmare to student if they is a victim of bullying and sexual abuse. (G088c)

Sense 2

Sense 2 for the pattern **BE n *to* n** refers to the use of the preposition ***to***to show the recipient of an action, feeling or a situation. This is similar to the senses identified in other patterns such as Sense 2 for the pattern **v n *to* n**, Sense 1 for the pattern **v *to* n**, and Sense 1 for the pattern **adj *to* n**. Examples of the use of this sense in the pattern **BE n *to* n** can be found in (45).

(45) Thirdly, the internet is a threat to privacy.(G102b)
Study show that anyone who is addict to internet can damage their brain.(C063c)

Sense 3

Sense 3 for the pattern **BE n *to* n** refers to the use of the preposition ***to***to show something that is directed towards a place, a point or a goal, or a situation. This is also similar to Sense 3 for the pattern **v n *to* n**, Sense 2 for the pattern **v *to* n**, Sense 1 for the

pattern **n *to* n**, Sense 2 for the pattern **adj *to* n** and Sense 2 for the pattern **adv *to* n**. Examples of the use of this sense for the pattern **BE n *to* n** can be found in (46).

(46) Thirdly, students can be exposed to the current issue around the world.(C078a)
But if we are playing video game for to long might be lead to addiction.(B027a)
This information allows us to know more about current affairs in the world and not be limited to only news broadcast by companies.(C080b)

From the frequency of the senses used for the pattern **BE n *to* n** presented in Table 5.11, it can be said that over time, the variation of the senses of ***to*** decreases over time. Overall, it can be observed that Sense 1 for the pattern **BE n *to* n** is the preferred use of ***to*** for the pattern **BE n *to* n**. At Time 1, Sense 1 occupies 47.37% of the pattern **BE n *to* n**; the percentage increases to 63.64% at Time 2 and further increases to 94.44% at Time 3.

Another observation that can be made from the analysis of the frequency of the senses of the preposition ***to*** for the pattern **BE n *to* n**, is the decreasing variation of the senses of ***to*** found for the pattern over time. For example, at Time 1, Sense 3 for the pattern **BE n *to* n** occupies 36.84% of the pattern **BE n*to* n**, and decreases over time while diminishing totally at Time 3.

5.4.7 The pattern **v adj *to* n** in CATMU

The analysis of the pattern **v adj *to* n** has identified two different senses of ***to***used within the pattern. The senses identified had also been identified for the previous patterns of ***to*** discussed. The quantitative measures of the senses of ***to*** found for the pattern **v adj *to* n** is presented in Table 5.12 below.

Table 5.12: Quantitative measures of the senses of *to* for the pattern v adj*to* n over time in CATMU

v adj *to* n	**Use**	**T1**		**T2**		**T3**	
		Freq.	**%**	**Freq.**	**%**	**Freq.**	**%**
Sense 1 *(Sense 1)*	Used to show a means of action that involves transfer of an item in which the recipient receives something.	0	0	1	7.69	2	25
Sense 2 *(Sense 3)*	Used to show something that is directed towards a place, a point or a goal or a situation.	3	100	12	92.31	6	75
Total		3	100	13	100	8	100

*the senses in this table correspond to the senses stated in the parentheses in Table 4.6

Sense 1

Sense 1 for the pattern **v adj *to* n** refers to the use of the preposition ***to*** to show a means of action that involves transfer of an item in which the recipient receives something. This is also similar to the sense of ***to*** identified in other pattern such as Sense 1 for the pattern **v n *to* n**. Examples of the use of this sense for the patter **v adj *to* n** can be seen in (47).

(47) The global issues such as floods, tsunami, earthquake that spread through the internet bring useful to students and people so that we can prepare ourselves to face the danger.

Sense 2

Sense 2 for the pattern **v adj *to* n** refers to the use of the preposition ***to*** to show something that is directed towards a place, a point or a goal, or a situation. This sense can also be found used in other patterns such as the patterns **v n *to* n**, **v *to* n**, **n *to* n**, **adj *to* n**, **adv *to* n**, and **BE n *to* n**. Examples of the use of this sense for the pattern **v adj *to* n** can be found in (48).

(48) Generally accepted that, bank transaction is more easy to do online rather than line up to the counter that cost time.(B030a)
For example, as a student most of them studied far from home and they only go back to hometown during holiday.(B026b)
It has its origions in military and academic project dating back to the 1960's, but began to be more widely available from the end of the 1980's.(B022b)

The most notable observation for the senses of ***to*** used for the pattern **v adj *to* n** is the increasing variety of senses found for the pattern. For example, Sense 1 for the pattern **v adj *to* n** was not found used for the pattern at Time 1 but it is found both at Time 2 and Time 3. This may be due to the increasing frequency of the pattern found in CATMU.

5.4.8 Other patterns of ***to*** in CATMU

Other patterns of ***to*** also exhibit a similar preference towards different senses according to different patterns of use. It was observed that the use of ***to*** in different patterns leads to the use of different senses of ***to***. Table 5.13 shows a summary of the senses of the preposition ***to*** used in different patterns of use identified in CATMU. The patterns that are listed in the table below exhibit only one sense of ***to*** used within the pattern. From the analysis, it can be seen that the use of ***to*** in the different patterns listed below are restricted to only two senses of ***to*** as shown in Table 5.13.

Table 5.13: A summary of the senses of the preposition *to* used in different patterns over time in CATMU

Others	Use	Time 1	Time 2	Time 3
Sense 1	Used to show something that is directed towards a place, a point or a goal or a situation.		**v adv *to* n** ***to* n** **conj *to* n**	***to* n** **conj *to* n**
Sense 2	Used to show relation either through comparison, attitude or reaction, opinion or feeling, and quality towards something.	**v *to* adv** **n *to* adv** **BE *to* n** **n *to* adj** **v *to* adj**	**v *to* adv** **wh *to* adj**	**BE *to* adj** **n *to* adj** **v *to* adv** **v n *to* adv** **v *to* adj**

The first sense of ***to*** identified with the use of other patterns found in CATMU is when the preposition ***to*** is used to show something that is directed towards a place, a point or a goal, or a situation. The patterns that exhibit the use of this sense of ***to*** are the patterns **v adv *to* n**, ***to* n**, and **conj *to* n** for Time 2; the patterns ***to* n** and **conj *to* n** for Time 3. The use of this sense is not identified in other patterns at Time 1.

The second sense of ***to*** identified with the use of other patterns found in CATMU is when the preposition ***to*** is used to show relation either through comparison, attitude or reaction, opinion or feeling, and quality towards something. This sense is found at all three points of time. The patterns that exhibit the use of this sense of ***to*** are the patterns **v *to* adv**, **n *to* adv**, **BE *to* n**, **n *to* adj**, and **v *to* adj** at Time 1; the patterns **v *to* adv** and **wh *to* adj** at Time 2; the patterns **BE *to* adj**, **n *to* adj**, **v *to* adv**, **v n *to* adv**, and **v *to* adj** at Time 3.

5.5 Emergent Lexis

Similar to the word ***of***, the analysis of the words found both to the left and right of the preposition ***to*** in CATMU also found that there are changes in the variation of the words over time. By classifying the words found concurrent to the preposition ***to*** into meaning groups, the variation of the words used with the preposition ***to*** can be observed.

5.5.1 Meaning groups of the words to the left of ***to*** in CATMU

The classification of the words concurrent to the word ***of*** found that the words can be found in several different meaning groups. Moreover, the meaning groups identified seems to expand over time. Table 5.14 shows the meaning groups of the words to the left of ***to*** as identified in CATMU over time.

Table 5.14: Meaning groups of the words to the left of *to* identified in CATMU over time

Meaning groups of words to the left of *to* over time				
Meaning groups	**Sample words/phrases**	**T1**	**T2**	**T3**
The FORM group: words that are concerned with an abstract action or event which creates or brings something into being.	*brings a good and advantage, bring useful, bring some joyful, bring a bad influence*	/	/	/
The FEED group: words that are concerned with giving something to someone.	*give equal space, give harm, provides information, give a bad effect, pose a question*	/	/	/
The CAUSE group: words that are concerned with making or causing someone do something.	*lead, happen, make, happened*	/	/	/
The SIMILAR group: words that indicate that two people or thing are the same, or different, or that they are being compared in some way.	*related, regarding*	/	/	/
The PARTIAL group: words that indicate that someone likes or dislikes someone or something, or that they want someone or something.	*addicted, addiction, addicting, addict*	/	/	/
The MOVE group: words that are concerned with moving or being somewhere.	*go, going, going back, come, back*	/	/	/
The BECOME group: words that indicate someone or something starts to have a particular quality or be in a particular state.	*fall a prey, get addicted, change*	/	/	/
The EASY group: words that indicate that something is easy or difficult.	*easy, more easy, a easy, most easy, very easy*	/	/	/
The BROADCAST group: words that are concerned with sending information or light somewhere.	*spread fast, expose,*	/	/	/
The USE group: words that are concerned with using something.	*using internet, use the time, use, used, utilized*	/	/	/
The DEPEND group: words that are concerned with depending or relying on something or someone, or hoping to have something.	*depends, connect, connecting, easily connect*	/	/	/
The GOOD group: words that indicate that an action is judged to be good in some way.	*very helpful, a good useful, no good, the benefit, any benefit*	/	/	/
The PART group: words that refer to a part or aspect of something.	*a dangerous thing, importance thing, crucial things, an uglier side*	/	/	/
The ACCESS group: words that refer to the ability or right to get into a place or see someone or something.	*access, easy access, easily access*	/	/	/
The ISSUE group: words that indicate what something is in a general way.	*human, bad effect, some harm, a threat, a problem*	/	/	/
The TELEVISION group: words that are concerned with broadcasting.	*the internet, internet*	/	/	/
The IMPORTANT group: words that indicate that some action is necessary or important.	*important, most thing important, very important*	/	/	/

Table 5.14: Continued

The INTERESTING group: words that indicate someone has a particular feeling about a situation.	*annoying*	/		
The ACCESSIBLE group: words that indicate that people are able or permitted to go somewhere, either physically or metaphorically, or that they are not able or permitted to go somewhere.	*open, available, readily available*	/	/	/
The PARTICULARLY group: words that indicate that someone or something has a quality to an unusual degree.	*especially*	/	/	/
The MORE or LESS group: words that indicate that someone or something has more or less of a quality compared with someone or something else, or compared with what they used to be like.	*more, a lot more, less time, many more*	/	/	/
The ERA group: words that refer to a period of time or a point in time.	*a time, a hard time, our time*		/	
The SPEND group: words that are concerned with spending, saving or wasting time, money or resources.	*saving time, spend time, waste time, spending money*		/	/
The TALK group: words that refer to communication with someone.	*less communication, explain, report, talk, communicate*		/	/
The PERMISSION group: words that refer to the permission or right that someone has to do something.	*your right*		/	
The CENTRE group: words that are concerned with something focusing on a particular thing.	*focus*		/	/
The YEARN group: words that are concerned with wanting something.	*want*		/	
The AIM group: words that refer to an aim or function.	*use, a vital use*		/	/
The BELIEVE group: words that are concerned with belief or agreement.	*believe, more believe*		/	/
The TRICK group: words that refer to actions that are effective or desirable.	*the best ways, a good ways, a popular ways*		/	/

Only a few of the meaning groups identified can be found consistently being used over time; these meaning groups are the FORM group, the FEED group, the CAUSE group, the SIMILAR group, the PARTIAL group, the MOVE group, the BECOME group, the EASY group, the BROADCAST group, the USE group, the DEPEND group, the GOOD group, the PART group, the ACCESS group, the ISSUE group, the TELEVISION group, the IMPORTANT group, the ACCESSIBLE group, the

PARTICULARLY group, and the More or LESS group. The meaning group that is found at only Time 1 is the INTERESTING group. Three of the meaning group identified are found at only Time 2 of CATMU; these are the ERA group, the PERSMISSION group and the YEARN group. Six of the meaning groups identified are found only at Time 2 and Time 3 of CATMU; these are the SPEND group, the TALK group, the CENTRE group, the AIM group, the BELIEVE group and the TRICK group.

As can be seen in Table 5.14, the number of meaning groups identified at Time 1 is 21; it increases to 29 at Time 2 and decreases to 26 at Time 3. It can be said that the meaning groups of the words immediately to the left of the preposition ***to*** were found to generally increase over time. Similar to the analysis of the meaning groups of the words to the left of ***of*** in the previous chapter, it can be observed that Time 2 has the most number of meaning groups identified for the words immediately to the left of the preposition ***to***. This suggests that the participants of CATMU used more words with varied meaning in their essays at Time 2. Some of the meaning groups that were identified at Time 2 are found to disappear at Time 3 which caused the meaning groups of the words used to the left of the preposition ***to***to decrease at Time 3. Overall, the analysis suggests that over time, the participants have used more diverse words from different meaning groups in their essays.

5.5.2 Meaning groups of the words to the right of ***to*** in the CATMU

Classification to the words immediately to the right of the preposition ***to*** was made according meaning groups. Table 5.15 shows the meaning groups of the words to the right of ***to*** identified in CATMU over time.

Table 5.15: Meaning groups of the words to the right of *to* identified in CATMU over time

Meaning groups of words to the right of *to* over time				
Meaning groups	**Sample words/phrases**	**T1**	**T2**	**T3**
The FEAR group: words that refer to feelings, attitudes, or views that people have.	*the attitute, our attitude*	/	/	
The MUM and DAD group: words that refer to relatives.	*the children, their parents, their friends or the family, their family members*	/	/	/
The COURSE group: words that are concerned with education.	*the class, the students, the library, the lecture, their studies, their school works…*	/	/	/
The CONSTRUCTION group: words that refer to an action or process.	*the occurrence of many social problem, the search, the usage for students, the development of science and technology*	/	/	/
The ISSUE group: words that indicate what something is in a general way.	*the current issue, a major problem, this issue*	/	/	/
The CUSTOM group: words that indicate what someone usually does.	*the norms, our culture, their lifestyle, their life, their own daily life*	/	/	/
The PLACE group: words that refer to places.	*the counter, the cyber café, the gambling site, this country*	/	/	/
The RISE and FALL group: words that refer to occurrence, beginning, development, or ending of something or someone.	*the extreme*	/	/	/
The IDEAL group: words that indicate that someone or something is the best, highest, lowest, or only member of a particular class or group.	*the extreme*	/		
The RIM group: words that indicate a part of something.	*the face, the good side, the monitor, their eyes*	/	/	/
The GANG group: words that indicate a group or quantity of people or things.	*the society, the people, the groups, the public*	/	/	/
The TELEVISION group: words that are concerned with broadcasting.	*the internet, the sexual website, the media social*	/	/	/
The SHORTAGE group: words that refer to shortage or lack of something.	*the lake of this guidance*	/		
The PART group: words that refer to a part or aspect of something.	*the lovely stuff, those non-relevant materials, other account*	/	/	/

Table 5.15: Continued

The RELATIONSHIP group: words that refer to relationships o links	*their relationship, social networking, their self*	/	/	/
The REASON group: words that refer to a reason to do something.	*the one of the reason*	/		
The TALK group: words that refer to speech and information.	*information, the fact*	/	/	/
The COMMUNICATION group: words that refer to communication or transaction involving several people or groups.	*social interaction, the free global communication*	/	/	
The ERA group: words that refer to a period of time or a point in time.	*three days, three hours, ten hours, the 1960's*	/	/	/
The NORMAL and ODD group: words that indicate that something gis the same as other people or things or the same as what is expected, or that they are different.	*the abnormal*		/	
The DETRIMENTAL group: words that indicate that something or someone causes harm to something or someone, or is not adapted to certain conditions.	*the harmful, the detriment of society*		/	
The HANDS group: words that indicate that someone has possession of someone or something or has some sort of control over them or it.	*the wrong hands*		/	
The DUTY group: words that indicate what someone is supposed to do.	*their own job, their responsibility*		/	/
The SOUNDS group: words that refer to sounds.	*the music, the songs*		/	/

Only a few of the meaning groups identified can be found to occur continuously over time. These meaning groups are the MUM and DAD group, the COURSE group, the CONSTRUCTION group, the ISSUE group, the CUSTOM group, the PLACE group, the RISE and FALL group, the RIM group, the GANG group, the TELEVISION group, the PART group, the RELATIONSHIP group, the TALK group, and the ERA group. Two of the meaning groups identified are found only at Time 1 and Time 2 of CATMU; these are the FEAR group and the COMMUNICATION group. Two of the meaning groups identified are found only at Time 2 and Time 3 of CATMU; these meaning groups are the DUTY group and the SOUND group. Three of the meaning groups identified are found only at Time 1 of CATMU; these are the IDEAL group, the SHORTAGE group, and the REASON group. Last but not least, three of the meaning

groups identified are found only at Time 2 of CATMU; these are the NORMAL or ODD group, the DETRIMENTAL group, and the HANDS group.

At Time 1, the number of meaning groups identified is 19, the number increases to 21 at Time 2 and decrease to 16 at Time 3. Therefore it can be said that the meaning groups of the words immediately to the right of the preposition ***to*** generally decrease over time. From Table 5.15, it can be seen that the meaning groups of the words immediately to the right of the preposition ***to*** is the highest at Time 2, suggesting that more variety of words were used by the participants in CATMU at Time 2. However, the meaning groups identified decreases at Time 3. This suggests that the participants of CATMU seem to be using a more restricted set of lexis to the right of the preposition ***to*** over time.

5.6 Conclusion

From the corpus analysis of the preposition ***to*** in CATMU, it can be said that there are certain changes to the use of the preposition ***to*** by the participants of CATMU over time. The first observation that can be made from the analysis of the preposition ***to*** in CATMU is that the frequency of the preposition ***to*** increases over time. However, it can be seen that the frequency of the preposition ***to*** is at its lowest at Time 2 of CATMU.

The pattern **v n *to* n** is observed to be the highest frequency pattern used for the preposition ***to*** over time. It is also dominantly used to show a means of action involving a transfer of an item where the recipient receives something. In the case of the essays in CATMU, the pattern mostly exists in the phrase "brings harm than good ***to*** students". This corresponds most to the prompt given for the argumentative essay for CATMU. The pattern **v n *to* n** may be dominant due to the phrasing of the prompt given for the argumentative essays. An interesting thing to note here for the pattern used for the

preposition ***to*** is that over time, the number of patterns identified changes. It can also be observed that some of the patterns that were identified at Time 1 of CATMU were not found at Time 3 (e.g. the pattern **BE *to* n**). At the same time, patterns that were not identified at both Time 1 and Time 2 of CATMU were identified at Time 3 (e.g. the patterns **v n *to* adv** and **BE *to* adj**).

Different from the analysis of the senses of ***of,*** there is no changes in the preference of the sense of ***to*** used in CATMU. The use of ***to*** to show a means of action that involves transfer of item in which the recipient receives something (Sense 1 according to Table 5.5) is the most used sense of ***to*** used in all three times (Time 1 – Time 3). This may be due to the prompt given which affect the sense of ***to*** to be used more by the participants in CATMU. Another observation that could be made for the corpus analysis of the preposition ***to*** is the decreasing variation of senses of ***to*** used in CATMU over time. For example, the use of the preposition ***to*** to show a period of time is not found in CATMU at Time 3. This shows that there is a decrease in the use of the preposition ***to*** over time. This also suggests that over time, the use of the preposition ***to*** is becoming more restricted over time.

When it comes to the words co-occurring with the preposition ***to***, the observation made is mostly similar to the analysis of the word ***of*** in chapter 4. That is, the meaning groups of the words immediately to the left of the preposition ***to*** to generally increase over time, while the meaning groups of the words immediately to the right of the preposition ***to*** to generally decrease over time. As such, the observations made suggest the complexity of language, whereby analysis of different component of language leads to different results.

CHAPTER 6: DISCUSSION AND CONCLUSION

6.0 Introduction

This chapter presents the discussion and the conclusion of the study reported in this dissertation. The study is summarized again first in this chapter. Next, the discussion of the result was made in which each of the question being discussed in separate sections. The limitation of the study is discussed next followed by the implication of the study and the conclusion.

6.1 Summary of the study

The study that was reported in the dissertation focused on the development of language by 103 Malaysian undergraduates of a public university in Malaysia. More specifically, the study focused on the patterns of use of the two highest frequency prepositions, ***of*** and ***to***, in the learner corpus, CATMU, compiled in this study. The study was designed to address the following research questions:

1. What are the two most frequent prepositions found in the argumentative writing of Malaysian undergraduates at Time 1 of CATMU?
2. How does the use of the two prepositions change over time in CATMU?
3. As far as meaning is concerned, what are the changes to be observed in phrases with which the prepositions occur?
4. How could the changes observed be explained in terms of language development?

The next section attempts to answer the research questions and discusses the findings of the study.

6.2 Discussion of the results

6.2.1 Research Question 1

What are the two most frequent prepositions found at Time 1 of CATMU?

The study aims to find out the changes in the use of prepositions as well as the phrases associated with the prepositions over time. Prepositions became the item of study in which it is used as a window to observe language development over time. It was found that the two most frequent prepositions that can be identified in CATMU are the prepositions ***of*** and ***to***. From the word list generated using the concordancing software Antconc, it can be seen that the word ***to*** is ranked as the second most frequently used word in CATMU. Table 6.1 presents the frequency list of CATMU at Time 1. Table 6.1: Frequency list of CATMU at Time 1

Table 6.1: Frequency list of CATMU at Time 1

Time 1		
Rank	**Freq.**	**Word**
1.	2117	the
2.	1386	to
3.	1350	internet
4.	765	and
5.	730	students
6.	626	a
7.	618	can
8.	618	of
9.	589	in
10.	576	is

From Table 6.1 above, it can be seen that the two highest frequency prepositions found in CATMU at Time 1 are ***to*** and ***of***. The word ***to*** is ranked as the second highest frequency word in CATMU, whereas the word ***of*** is ranked as the eighth highest frequency word in CATMU. However, it has been taken into consideration that the

frequency of the word ***to*** as shown in Table 6.1 could include the instances of ***to*** acting as an infinitive. Therefore, the preposition ***to*** is manually calculated from all the instances of ***to*** found in CATMU. When only ***to*** as a preposition is calculated, the preposition ***to*** is found to be the second highest frequency preposition after the preposition ***of***. Table 6.2 shows the frequency and percentage of the two highest frequency prepositions in CATMU at Time 1.

Table 6.2: Frequency and percentage of the prepositions *of* and *to* in CATMU at Time 1

Time 1		
Word	**Frequency**	**Percentage (%)**
of	618	1.74
to	606	1.71

The words ***of*** and ***to*** are both considered grammatical words, which may be one of the reasons why it could be found in high frequency inside a corpus. The word ***to*** is ranked as the second-high frequency word at Time 1 in CATMU. Comparing it to the longitudinal study by Chau (2015), the word ***to*** is also found as the second-high rank word in the LoCLaNT. However, when only the use of ***to*** as preposition is taken into consideration, it was found that the preposition ***to*** has a lower percentage of use as compared to the preposition ***of***. This suggests higher use of ***to*** as an infinitive in CATMU. The case is different in the study of Chau (2015) where it was found that the use of ***to*** as a preposition is more dominant in the longitudinal corpus as compared to the use of ***to*** as an infinitive. This may be attributed to the nature of the writing task given in the study. The writing task given in the study by Chau (2015) is a narrative writing task about saving a drowning girl in which more use of ***to*** as a preposition is found in the corpus. It is completely different from the writing task that was used in this

study, whereby participants were asked to write an argumentative essay on the benefits of internet to students.

6.2.2 Research Question 2

How does the use of the two prepositions change over time in CATMU?

From the findings of the corpus studies reported in both Chapter 4 and 5, it can be deduced that the changes in the patterns of use of the prepositions vary for both the prepositions ***of*** and ***to***. To summarize, the analysis of the preposition ***of*** shows that it occurs in nine different patterns. However, only seven patterns were found to occur consistently over time. These patterns are the pattern **n *of* n**, **pron *of* n**, **n *of* –ing**, **adj *of* n**, **adv *of* n/-ing/v**, **v *of* n**, and **BE adj *of* n**. It was also found that for the prepositions ***of***, the number of patterns found decreases over time.

The analysis for the preposition ***to*** found a total of 18 patterns identified over time. However, only 11 patterns were found to be used consistently over time for the preposition ***to***. These patterns are the pattern **v n *to* n**, which is the dominating pattern of use of ***to*** in CATMU, **v *to* n**, **n *to* n**, **adj *to* n**, **adv *to*n**, **v adj *to* n**, **BE n *to* n**, **v *to* adv**, **v *to* adj**, **n *to* adv**, and **n *to* adj**. The number of patterns found with the use of the preposition ***to*** were found to increase over time. For both the findings of the patterns of use of the prepositions ***of*** and ***to***, it can be concluded that there is a simultaneous increase and decrease of the patterns of use of prepositions over time.

This may be due to the complex nature of language and language learning itself. The simultaneous increase and decrease in the patterns of use of the prepositions suggests that language develops in a complex and non-linear manner (Larsen-Freeman, 2006). On the one hand, the number of the patterns of use of the preposition ***of*** was found to decrease over time which suggests that language is getting less complex over time.

However, on the other hand, the patterns of use of the preposition ***to*** were found to increase over time. This suggests the complexity of language learning as the participants used the prepositions ***of*** and ***to*** in their writing over time.

The reason behind the observed changes in the patterns of use of prepositions as of yet has been inconclusive. Instead of a linear change observed over time in the use of the prepositions studied, a more complex picture of development was painted from the findings. When looking at the input received by the participants, it was found that the participants were not engaged in any specific instruction on the mechanics of using prepositions ***of*** and ***to*** during the course of the study. However, they were exposed to the different techniques of writing an essay, including the argumentative essay. This change in the environment of the participants may lead to a change in the way language is perceived by the participants.

6.2.3 Research Question 3

> *As far as meaning is concerned, what are the changes to be observed in phrases with which the prepositions occur?*

From the analysis of the corpus studies, it was found that the prepositions ***of*** and ***to*** are used in several different ways. For example, a total of ten senses of the word ***of*** were identified within the patterns of use of the word ***of*** over time. At the same time, different senses of ***to*** (a total of 7) were also identified with the use of each pattern over time.

More specifically, the senses of the prepositions ***of*** and ***to*** that were identified vary according to the patterns of use in which the prepositions occur in. This suggests that language is highly patterned (Hunston & Francis, 2000) and also that meaning and patterns are connected (Hunston & Francis, 2000).

An interesting observation that could be made from the analysis of the senses for the preposition ***of*** is that there is a changing preference of use for the word ***of*** over time. From Time 1 to Time 2, the preposition ***of*** is mostly used to quantify the words that comes after ***of***. However, at Time 3, it is found that the preposition ***of*** is mostly used to relate two ideas to have the words after ***of*** to give more definition or more information on the word before ***of***.

The analysis of the preposition ***to*** shows a slightly different result. Instead of a changing preference of use of the preposition, it was found that for the preposition ***to***, the use of the preposition ***to*** seem to become more restricted over time. That is, it was observed that over time, the number of the senses of ***to*** found in CATMU decreases. For example, the use of ***to*** to show a period of time can be found at both Time 1 and Time 2 of CATMU, however, it disappears completely at Time 3.

Larsen-Freeman (2015) suggests that learners are more intent on making meaning instead of merely just acquiring form. Despite the changing frequency of the patterns of use of both prepositions, it was also found that not only the patterns of use changes, but also the sense of the prepositions ***of*** and ***to*** used changes. This suggests active participation of the learner as they used language to convey meaning. The participants engage with both the lexis and structure to become an active meaning maker (Chau, 2015). With that intention of conveying meaning when using language, the learners used everything that is available in their linguistic repertoire in order to achieve effective communication.

6.2.4 Research Question 4

How could the differences observed be explained in terms of language development?

Even though the study only looks at six weeks of students' data, a few observations can be made. The first is that the number of patterns of use identified for both the prepositions changes over time. The number of the patterns of use of the word ***of*** identified at Time 1 of CATMU is nine; however it decreases to seven at Time 2 and increases to eight at Time 3. Similar to that, the number of patterns of use identified for the preposition ***to*** at Time 1 of CATMU is 12; however, the number increase to 16 at Time 2 and decreases to 15 at Time 3. This is caused by patterns different patterns appearing and diminishing at different points of time. In terms of its senses, there seem to be a changing preference for the senses of prepositions used over time; the variety of the senses of the prepositions used has also become more restricted over time. Lastly, it is also found that the meaning groups of the words concurrent to the prepositions ***of*** and ***to*** both increase and decrease at the same time.

These changes over time observed in the use of prepositions in CATMU contribute to the development of language as participants progress in their language learning. This shows that language is not static and keeps on changing each time it is being used. This may be due to the changes in the environment which may have affected the communicative needs of the users thus effect a change in language use over time.

The input that the participants received from the English proficiency course they were taking during the course of their study may have affected the change in the way they use the English language to produce their argumentative essays. The frequency of the prepositions and the patterns identified at Time 1 signified the accumulation of knowledge of the English language of the participants from the first time they were

exposed to the language. There is an observed change to the use of the prepositions both at Time 2 and Time 3 of CATMU. This signifies that language development is still undergoing even for more mature learners.

At the same time, the patterns of use of prepositions and the sense of the prepositions found in CATMU are not predictable. This can be seen from the increasing and decreasing frequencies in both the analysis of the prepositions. This suggests a complex use of language is in action. According to Ellis, O'Donnell, and Romer (2015), usage of a language is intricately structured in ways of typical complex adaptive systems. This may be the vindication of the changes in language use as the environment of a language user changes. Any small changes received by the participants, would effect change to the way language is used.

The findings of the study identified a complex pattern of language development taking place over time. That is, it can be seen that the use of the prepositions tends to increase and decrease at the same time. This suggests that language development takes place in a complex manner, and that language acquisition is a non-linear and complex system (Larsen-Freeman, 2006).

A similar finding can also be obtained through an error-analysis perspective. Why then should a multilingual perspective be adopted? To answer this question, it is helpful to reconsider the arguments made at the beginning of the dissertation, that is the consideration that a bi/multilingual is evidently not a sum of two monolinguals and that they have a separate set of linguistic practice which is not similar to any language structure of a monolingual. An observation made from an error perspective would obtain only a catalogue of linguistic structures that a language learner may have "missed" while using a specified language. Although useful in the sense that it gives information on the linguistic structures that a language learner has in their linguistic

repertoire, it disregards the creative efforts that the learner has made in order to achieve effective communication. In other words, the error perspective is keen on inspecting what a learner has or has not done instead of looking at how the linguistic repertoire of the learner is used to make meaning. Thus, the learner is placed in a subordinate viewpoint. This subordinating comparison is not only harmful from an ethical view (Ortega, 2014), it also fails the purpose of SLA which is to study the way in which language is used by a person who knows multiple languages.

The multilingual perspective shifts the focus of the study away from the linguistic mishaps that is made by the bi/multilingual user and instead focused on the linguistic structures made by the bi/multilingual user. Instead of getting a catalogue of errors and mistakes as a result of the study, it obtains a series of patterns and associated meanings of the language as used by the participants. This allows for the observation of language use that centers particularly on meaning. Thus, this leads to a focus on the agency of individuals engaging in using, creating, and interpreting signs for communication (Blackledge, Creese & Takhi, 2013). It looks at the different ways in which language is being used through the analysis of the patterns of words identified in a corpus.

6.3 Implication for Future Research and Practice

The findings of this study show two main observations that could be made to contribute to the understanding of language and language learning. The first concerns the pathway of language development. That is, language development takes place in a complex and non-liner way (Larsen-Freeman, 2006). The second main observation concerns language use of a language user. It seems that learners of language appear to actively engage with their environment and knowledge of language in order to make meaning and achieve effective communication. These observations could have an

implication to the practice of language teaching and learning and may also give ideas on the changes that could be done to the practice of a language classroom. The pedagogical implication of the study can be categorized from three different aspects which are: looking back at the role of teacher training, readjustment of classroom practice and the development of the classroom materials.

When the idea that language users are dynamic meaning makers (Chau, 2015) is taken into consideration, the role of language teachers should first be readjusted. Since language use is a complex process (Ellis, O'Donnell & Romer, 2014), this could mean that language development is a complex and non-linear process. Language teachers in one way or another could adopt translanguaging strategies in their pedagogy in a way that a multilingual entire linguistic repertoire is exploited to make meaning (Garcia, 2014). Whenever a person used language, it should be taken into consideration that there is a need of communication and that the person's entire linguistic knowledge is inadvertently used to satisfy their need to communicate. Language teachers should then be trained to incorporate the use of translanguaging strategies (a strategy where students of a language classroom are encouraged to use all of their language as a resource for reading, writing and thinking in the classroom) in their classroom teaching to ensure the understanding of a language learners' practice while using the language.

This leads to revamping the practice of a language classroom. In a way, language teachers should always encourage a communicative classroom; teachers should be the control of the classroom environment and create an environment where learners feel the need to participate in discussion in the class. In other words, language teachers should aim to create a safe environment in a language classroom so that language users would feel safe to exploit their entire linguistic repertoire in the classroom. Language teachers should be aware of the language practices of their students and rethink the effects of allowing only one language being used in a multilingual classroom.

All these will require a change in the teaching preparation for a language classroom and having language teachers to be more sensitive towards the multilingual practice of their students. Language teachers should then develop classroom materials that incorporate translingual practice, which requires the language user's metacognition and sense of self-regulation all the while allowing language to happen on its own. A language classroom should then include materials that are more inclined towards content which became the driver to language learning allowing adequate practice of language use to happen. This allows a language user to be able to know how to behave in a certain discourse and be able to gain experience in the language discourse needed.

6.4 Limitations of the study

Although steps have been taken by the researcher to ensure the quality of the study, a few limitations of this study have to be pointed out. The biggest limitation of this study is the length of time used in this study. Although the study met the requirements of a longitudinal study as has been suggested by Ortega and Brynes (2008), it is still favourable to have a longer time frame to be allocated for this study. A longer time allocated for the study would allow for a few subsequent series of data collection to be made; a more complete picture of language development could be made with more consequent round of data collection.

The second limitation to this study relates to the number of words per essay included in the study. The number of words per essay is not fixed in this study, in which every word produced by the participants was taken into the analysis. The inclusion of all the words produced by the participants may affect the frequency of the prepositions identified in CATMU; it also affects the analysis and observation of the use of the

prepositions identified in CATMU. However, considering the aim of the study is to study language development, any increase or decrease in the production of words by the participants in CATMU can be considered as language development.

Last but not least is the representativeness of the corpus. The study only includes one university in Malaysia; this may not be representative to each and every undergraduate in Malaysia. Inclusion of more participants from more institutions in Malaysia may provide a more representative view of Malaysian undergraduates.

6.5 Conclusion

The main purpose of this study is to compile a longitudinal corpus of learner language produced by Malaysian undergraduates. At the same time, the study also aims to analyse the corpus compiled by using the two most frequent prepositions found in the corpus as a lens to study language development over time. A commitment was made in the beginning of the study to analyse the language as used by the participants of the corpus without comparing it to any other language, be it the target language or the mother tongue of the participants. This results in two main observations of the use of the prepositions in CATMU; the first observation is that language development takes place in a complex and non-linear manner. This can be observed through the corpus that the use of the prepositions in terms of pattern and senses is observed to both increase and decrease at the same time. Larsen-Freeman (2006) had also observed that development of language is not discrete and stage-like but more like the waxing and waning of patterns. At the same time, from the observation of the use of the senses of the prepositions in CATMU, it is found that over time, a change in the preference of the senses of prepositions used in CATMU. This suggests that the participants are more focused on making meaning when using language instead of focusing on the structure.

This is also suggested by Larsen-Freeman (2015) and observed in the study by Chau (2015) with which it was found that learners are dynamic meaning makers. It should be acknowledged that it is a challenge to stay committed to study learner language in its own right. However, efforts have been continuously made to ensure that the learner language is given its due and not be compared to the system of another language.

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APPENDIX

Appendix A: Sample of the prompt used to elicit argumentative writing for CATMU.

Task Sheet

Write an essay of more than 300 words based on the topic given below:

The Internet Brings More Harm Than Good to Students. Discuss.

An extra writing paper is provided for the students during the elicitation of writing data

Appendix B: Sample of the consent form issued to the participants.

Participants Information Sheet

Aim:

- To analyze the learner language development pattern by analyzing learners' use of preposition.

What participant will need to do:

- Produce an essay of 100 words based on the prompts given by the researcher subsequently for the duration of the study.

What the researcher will do:

- Collect essays from participant subsequently for the duration of the study.
- Transfer the content of the written essay into the computer and analyze the essay digitally.

Ethical details:

- Participants are allowed to withdraw at any time without any negative comments.
- Information may be submitted but participant's identity will not be revealed.
- The data will be stored with the researcher and participant may request to withhold data from the researcher at any point of time.
- The participant is allowed to contact the researcher to gain any further information about the research.

Signed : …….

Print name : Elfreda Floria L Danny **Date** :

Contact Details

Researcher : Elfreda Floria L Danny

Contact : 014-9594325 (elfredafloria91@gmail.com)

Consent Form

Title:

Contact Person: Elfreda Floria L Danny

- ✓ I have read the Participants Information Sheet and the nature and purpose of the study has been explained to me. I understand and agree to take part.
- ✓ I understand the purpose of the study and my movement in it.
- ✓ I understand that I may withdraw from the study at any stage and that this will not affect my status now or in the future.
- ✓ I understand that while information gained may be published, I will not be identified and my personal results will remain confidential.
- ✓ I understand that data will be shared by Elfreda Floria L Danny, and that at any time I can request to see the results.

Signed ……..

Print name …… **Date** ……

Contact Details (email/tel) ……..……

Appendix C: Sample of short questionnaire used to record participants' demography

Participant Demographic Information

Age : _____

Gender : _____

Semester : _____

Ethnicity : _____

First language : _____

Hometown : _____

Course taken in UPSI : _____

When was your first exposure to English language?

_____

How long have you been learning English?

_____

How often do you use English outside of the classroom?

_____

Do you speak English with your family and friends?

_____