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Second language development through the lens of a dynamic usage-based approach

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Second Language Development through the Lens of a Dynamic Usage-Based Approach

Fathima Mufeeda Irshad



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Second Language Development through the Lens of a Dynamic Usage-Based Approach

PhD thesis

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This thesis will be defended in public on

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Chapter 1 General Introduction

English has rapidly evolved as the main language of communication worldwide as a consequence of and as a contribution to globalization. In this context, to become employed within the top sections, a good command of both spoken and written English is pivotal. It is no exception in Sri Lanka. However, in post-imperial Sri Lanka, English stopped being the medium of communication and instruction in schools, and it is only relatively recently that educators seem to have given prominence to teaching English in schools and universities. Despite all efforts by the authorities to promote English language teaching in Sri Lanka, "(...) a minority of the students achieves satisfactory examination results or the proficiency for satisfactory participation in employment that requires English" (Karunaratne, 2003; Raheem & Ratwatte, 2001; cf. Liyanage, 2003, p. 139).

In Sri Lankan Universities, English language teaching plays a crucial role, for it is the branch of learning that equips undergraduates with skills for academic learning as well as for upward social mobility on an increasingly globalised job market. However, available literature suggests that teaching and learning of English in Sri Lanka has not been very successful for both undergraduates and graduates.

After more than half a century of teaching English and assuming that all students have learnt English for at least eight years (in school), the English language programmes in the universities have not enabled the vast majority of students to communicate in English effectively or to be equipped with language skills to explore the expanding world of learning, resulting in a decline in the quality of higher education (National Education Commission Report, 2003, p.176; cf. Perera, 2010, p. 2).

As undergraduates, students feel they are handicapped, for they experience difficulty following the various English-medium degree programmes conducted by the universities. As graduates, the poor knowledge of English disqualifies these same students from obtaining a position in the private sector, the engine of growth and the biggest employer in the country. In an endeavour to find answers to the unsuccessful English language teaching and learning

of the undergraduates, the study described in this dissertation attempts to develop an implementable English language instructional programme based on a dynamic usage-based approach, assess its effectiveness, and then investigate the possibility of integrating it (the instructional programme) into a self-instructional material-centered multimedia computer programme that facilitates self-paced learning. These phenomena will be investigated in two quasi-experimental studies that will be conducted at the Faculty of Management Studies and Commerce of the University of Sri Jayewardenepura in Sri Lanka.

1.1 Rationale of the Study

The Faculty of Management Studies and Commerce (FMSC) at the University of Sri Jayewardenepura (USJP) introduced the communicative language teaching approach in the early 1990s in keeping with the developing trends in second language learning in its attempt to find a solution to the problem of English language education. According to Richards and Rogers (2001), this approach (often abbreviated as CLT) adopts a pragmatic or performance-based approach to learning and promotes the development of real-life language skills by engaging the learner in contextualized, meaningful, and communicative-oriented learning tasks (see 2.1.4 for a more elaborate discussion on CLT). Despite the fact that the English language programme conducted by the Faculty is tailored to meet the language needs of the undergraduates, the faculty members find that the English proficiency of these undergraduates is inadequate to cope with their English medium education and the competition in the job market.

The difficulty in effectively achieving the objectives of the Communicative language teaching approach in schools and the universities in Sri Lanka is due to a dearth of qualified English language teachers which has resulted in teachers having to teach forty to sixty students (Young Silva, 1982, p.199) in a heterogeneous classroom (Perera, 2010). Creating a communicative setting and classroom with these student numbers is virtually impossible.

The paucity of qualified and experienced English teachers in Sri Lanka is primarily due to the sidelining of English with the government's decision to switch over to "swabasha" (mother tongue: Sinhala/Tamil) as the medium of instruction and to teach English only as a second language subject in schools. This development started in 1945; the enactment of the "Sinhala Only" Act followed in 1956, and the adoption of the mother tongue (Sinhala/Tamil) as the medium of instruction in universities became effective in 1960 (when the students who

were educated in the vernacular medium entered the Sri Lankan universities). Before the implementation of these language reforms (which coincided with the introduction of free education) in Sri Lanka, all education was in the English medium; however, it was available only to a small minority who could afford it. Even though English has only been given second language status and has been taught as just another subject in schools and universities following the Language Act of 1956, the importance of English in education has not been discounted or officially discouraged by the state (from the very beginning of Swabasha education). However, the significance given to English in the school curriculum has diminished through the years because English ceased to function as the language of public administration (including education) throughout Sri Lanka, and students could, even without a knowledge of English, get their education with good future prospects for employment in the public sector. One of the consequences of this was the scarcity of teachers and experts to train students.

The current situation in Sri Lanka is one in which English language classrooms are very much heterogeneous. This can be attributed to the admission policy of the University Grants Commission (see section 3.2 for a more detailed discussion of the admission policy). To give an example based on the Management and Commerce study programme, in 2013/2014, 4,250 students gained admission to the national universities of Sri Lanka to follow courses in Management and Commerce. Of these 4,250 students, 1,170 students entered the Faculty of Management Studies and Commerce of the University of Sri Jayewardenepura, where the current study is conducted (Admission to Undergraduate Courses of the Universities in 2013/2014: University Grants Commission). A very high percentage of these students originated from the rural and educationally disadvantaged areas of the country with a wide discrepancy in their standard of English. With regard to FMSC, the decision to group students according to the degree programme they follow and not according to their English language proficiency could be identified as an additional reason for the heterogeneous second language classrooms that resulted.

Achieving the objectives of the communicative approach in an oversized, heterogeneous classroom is demanding, for there are issues that both teachers and students face. First, the proponents of the communicative approach recommend several strategies to be used in a language classroom (see Richards & Rodgers, 2001). One of them is to encourage students to communicate and complete tasks by means of interaction with other learners. In order to achieve this, emphasis is placed on the successful completion of assigned tasks

through considerable use of pair and group activities. In an oversized, compact classroom, implementation of such a strategy can be quite challenging. Second, intra and inter student variation and variability is a common feature in such a classroom because students' past experience or inexperience with the language is diverse depending on their background. Some come from a rich environment in terms of English language use and command, while others come from an environment where English is hardly used in everyday speech. Some learners who enter the universities are from schools with inadequate facilities and have been taught by untrained teachers who themselves are not very comfortable in using the language, while others are from leading schools in the country and have been taught by qualified and trained teachers. In a situation such as this, both the students and teacher face a dilemma. From the students' point of view, the better students could dominate the weaker students, which in turn could make them feel inhibited, disadvantaged, and inferior leading to an obstruction in group/pair work. This in turn would impede or even break down a communicative approach and constrain their ability to communicate in English. From the teacher's point of view, in a heterogeneous classroom, the teacher could be faced with the uphill task of making a lesson meaningful to a class consisting of students with poor communication skills and students coming from "better backgrounds" who speak what is known as "educated Sri Lankan English (Canagarajah, 1993, p. 616).

In such a setting, the most important question to be asked is how teaching of English as a second language can be improved. The main question guiding this particular study is then, how can this be improved in the Faculty of Management Studies and Commerce, University of Sri Jayewardenepura. Although the study is thus conducted within this setting, we feel that its results are generalizable to a wider Sri Lankan context.

Research conducted by Hong (2013) has shown that a so-called dynamic usage-based (DUB) perspective, which was tried out with a group of lower intermediate level undergraduates at Can Tho University in Vietnam, has been proven very successful in the holistic development of language skills. A dynamic usage-based approach stipulates that frequency of input, repetition, and a meaningful-based context is vital for the successful development of a second language. It holds that language development is form-meaning mapping through use (see chapter 2 for a detailed discussion on a dynamic usage-based approach). Hong, as a PhD student in the department of Applied Linguistics at the RUG, developed a teaching programme based on the principles of the DUB approach for Vietnamese learners of English at university using the movie "A Cinderella Story" as the

primary resource. This approach has, to our knowledge, not been adopted in teaching and learning of English as a second language either in Sri Lanka at large and most definitely not at the Faculty of Management Studies and Commerce of the University of Sri Jayewardenepura. Given the current problematic English language teaching in Sri Lanka, the researcher felt that it would be interesting and worthwhile to (1) apply this approach to the Sri Lankan context and (2) investigate the possibility of integrating technology into this approach with a view to transforming the course into a self-instructional material-centered multimedia computer programme. The latter aim was introduced as a way of dealing with the large second language classrooms that form a reality in Sri Lanka. Can the positive effects of a DUB approach as found by Hong (2013) be replicated in the Sri Lankan context? And if so, can it be adapted to a self-instructional material-centered multimedia computer programme for more individual self-paced learning to take place?

However, in Sri Lanka, despite the emphasis placed on input, interaction, and output, the learning and teaching of English has not been successful. This could be due to many reasons: Young Silva (1982) and Gajadeera (2002) alike consider it to be due to a dearth of English teachers in Sri Lanka, which has resulted in teachers having to teach large classes of about forty to sixty students (Young Silva, 1982, p. 199). Nagasundaram (1996) states that the CLT approach has not been successful not because of its pitfalls but because of the incorrect implementation of the approach in classroom practices where more attention is given to direct teaching of language form (grammar) rather than incorporating form and meaning. Raheem (2004) believes that teacher inadequacies arising from lack of experience and lack of proficiency are reasons for the failure.

Recruiting qualified and experienced teachers to teach university undergraduates is a problem common to all universities in Sri Lanka. For FMSC, with a student enrollment of nearly one thousand a year, the search for qualified and experienced second language teachers is even more difficult. To overcome this problem of teacher shortage, the Faculty has invested in a fully equipped multimedia language laboratory with one hundred computers under the so-called HETC project, which is a World Bank-funded project.

This multi-media laboratory, which has been established solely for second language teaching and learning, can be used by all full-time students of the Faculty. Moreover, the Faculty already has six computer laboratories with a total of around 400 computers that can be used by both language teachers for teaching purposes and students for language learning upon prior reservation.

In order words, the facilities are present. At the same time, however, no empirically tested self-instructional material-centered pedagogically sound multimedia computer programmes exist either to solve or to overcome the problem of English language teaching that the Faculty is confronted with, heavily restricting the usefulness of the availability of the computers.

Hence, as mentioned in chapter 3, implementing a dynamic usage-based approach to second language teaching, which has been proven effective by Hong (2013) as well as in Study 1, into a computer programme that can be tailored specifically for self-instructional learning and investigating its effectiveness is of particular importance to the Faculty of Management Studies and Commerce.

1.2 Research Questions

In order to explore this problem, the following research questions guide two separate studies that are both reported in this work:

1.2.1 Study 1: (Replication Study)

Study 1 attempts to answer the following questions:

- 1. Is the English language proficiency of the participants in the current study similar to that of the participants in Hong (2013)?
- Are the instruments, methods, and procedures established and validated by Hong (2013) appropriate for the current study?
- 3. Is a DUB approach to teaching English to the students of the Faculty of Management Studies and Commerce, University of Sri Jayewardenepura more effective than their regular English language programme currently conducted by the Faculty?

- 4. Are the DUB-inspired course materials in the current study suitable to be transformed into a self-instructional material-centered multimedia computer programme within the Faculty of Management Studies and Commerce, University of Sri Jayewardenepura?
- 1.2.2 Study 2: (Empirical Investigation)

Study 2 aims to answer the following questions:

- 1. Is a dynamic usage-based approach when delivered through a self-instructional material-centered multimedia computer programme in which students work individually at their own pace (DUBc) as effective as either a dynamic usage-based approach delivered through a PowerPoint based multimedia (DUBp) programme in which a teacher is in control of the mode of delivery or as their regular CLT programme (tCLT)?
- 2. Do the students who underwent the DUBc and DUBp interventions view the respective treatments they were exposed to in a positive or a negative manner?

1.3 Objectives of the Study

The first objective of this study is to develop an English as a second language instructional programme based on a DUB approach to second language teaching that will enhance the overall language competencies of the undergraduates of the Faculty of Management Studies and Commerce and will help overcome the problems of oversized, heterogeneous second language classes at this university and in general in Sri Lanka.

The second objective is to examine the possibility of incorporating the instructional programme into a self-instructional material-centered multimedia computer programme, again with the aim of solving the oversized and heterogeneous language class situation.

1.4 Significance of the Study

It is hoped that the outcome of this study will result in the development of an effective selfinstructional material-centered multimedia computer programme that will develop the English language skills of the undergraduates of the Faculty, facilitate English-medium instructions, and increase the students' employment prospects. In addition, the faculty is currently setting up a language laboratory, having obtained grants provided by the Higher Education for the Twenty First Century (HETC) project. It is also hoped that the outcomes of this study will contribute to effective use of this facility, where students will be learning the language individually at their own pace in a conducive learning environment, in small groups, at a time suitable to both students and Faculty. As such, the results of this study will be made available to the Faculty Board, with the ultimate aim of implementing changes in the curriculum based on its findings.

1.5 Outline

This dissertation is structured as follows: Chapter 2 reviews the literature related to the research.

Chapter 3 discusses the methodology used in Study 1 (a replication study) and presents the analysis of the data and the results.

Chapter 4 discusses the methodology used in Study 2 (the main study). The basis for this study is a quasi-experimental design using a general English proficiency pre and posttests and written feedback from students on the intervention designed on the basis of a dynamic usage-based approach. The analysis of the data based on the objectives of the studies and the findings are presented. The important tendencies are also highlighted in the analysis.

Chapter 5 discusses the findings of Studies 1 and 2 and presents the implications and recommendations based on the findings of the 2 studies.

The final chapter highlights the limitations of the study and directions for future research.

Chapter 2 Theoretical Background

The purpose of this chapter is to examine the theory and research that have addressed what constitutes effective pedagogy for the acquisition of a second language in a classroom context. The first section of this chapter focuses only on theories and methods (of teaching) that are relevant or have been employed within a Sri Lankan context with an attempt to improve (but with little success) the teaching of English as a second language. The section following that begins with a discussion on the theoretical base of the studies described in this dissertation: usage based linguistics, dynamic systems theory (DST), its application in a second language development context, a dynamic-usage based approach to second language teaching (DUB), followed by an examination of the effects of previous studies. The final section then provides an overview of autonomous learning, computer-assisted language learning, self-paced learning, self-instruction as applied to the Sri Lankan context, and studies on existing computer programmes.

2.1 An Overview of Second Language Teaching Methods

2.1.1 Grammar Translation Method

English as a second language (ESL) was introduced in Sri Lanka in the early 1950s. The grammar translation method, a method of teaching foreign languages, was the popular mode of teaching the English language in Sri Lanka at that time, as it was in many other classrooms worldwide (Narangoda, 1992). As Howatt and Widdowson (2004) states, the term grammar-translation (GT) encompasses a wide range of teaching methods; however, in general, instructions in GT classes essentially focus on knowledge about language rather than the ability to use language. Language is primarily used for the purpose of reading and writing, and the emphasis is more on accuracy than on fluency. In a standard GT approach, a substantial amount of time is given to present the rules of a certain grammatical item, illustrating its use often by a comparison between the first and second language. This is done through parsing individual sentences or by the explicit correction of learner errors. Within GT

approaches, hardly any attention is given to how texts are organized. Practice activities take the form of constructing sentences and translating sentences of texts from the first to the second language. Any given text is then often followed by a list of new lexical items used in the text together with the mother tongue translation. Generally, the medium of instruction is the mother tongue, which is used to clarify conceptual problems and to discuss the use of a particular grammatical structure. In a GT class, the teacher plays a dominant role, doing most of the speaking and being in control of most activities (presenting and explaining the grammatical rules, translating them, conducting practice, and correcting mistakes), and the learners interact only with the teachers, not with each other (Prator & Celce-Murcia, 1979).

The emphasis on accurate grammar usage rather than on how to use language, and the inadequacy of the learners to perform any kind of sophisticated linguistic tasks, was considered a major drawback to this method in the Sri Lankan second language learning context (Gajadeera, 2006). These concerns, in the 1950s, gave rise to the direct method (DM), which at that time was popular in the teaching of modern languages in other parts of the world as well.

2.1.2 The Direct Method

The direct method (DM) was developed as a response to the grammar translation method, which was found to be inadequate and ineffective because of the "neglect of realistic, oral language" (Zimmerman, 1997, p. 6), and students receiving "very little training in the use of the language to express one's own ideas" (Brown, 1994; cf. Perera, 2001, p. 43). The theoretical assumption underlying the direct method is that language can only be learnt through demonstration, and instead of explaining the grammatical structure students must be encouraged to use language naturally. In this method, the learning of a second language was seen as similar to the acquisition of a child's first language. The teaching method therefore emphasized the importance of sounds, simple sentences, and the association of language with objects and persons in the immediate environment. Classroom instruction is conducted exclusively in the target language, language is presented in context, grammar is taught inductively, and the teacher only demonstrates and does not explain. The purpose of learning is communication; hence, teaching generally focuses on the development of learners' speech and listening comprehension skills. Although this method was met with much enthusiasm in Sri Lanka, it did not last long in the Sri Lankan context (or in the global context, for that

matter) because of various reasons--lack of facilities in the English language classroom for the implementation of this method, a dearth of proficient teachers trained in this method, the difficulty in effectively applying the method in large as well as higher level classes, and the inability to avoid the use of the mother tongue in the second language classrooms (Perera, 2001). This method, which in fact is effectively the precursor of many other methods that were to follow in later years such as communicative language teaching approach, was therefore replaced with the audio-lingual method (AL) of the 1960s, which too incidentally embodied some aspects of DM (Gajadeera, 2006).

2.1.3 Audio-Lingual Method

The audio-lingual (AL) method, influenced by structural linguistics and behavioral psychology, focused on the inductive learning of grammar through analogy rather than by deductive explanation. In the AL method, the goal is to achieve native-speaker mastery. In terms of instructional content, unlike what was common practice in the DM, lessons consist of dialogue memorization, repetition drill, transformation drill, minimal pairs, completion of dialogue, and grammar games. Vocabulary is learned in context; language labs, tapes, and visual aid are used intensively. The learners are very often made to read dialogues aloud, memorise them, and produce them. While the teacher's role in the AL method involves less teacher talk than in GT, the teacher is still the main source of instruction and controls most of what happens within the classroom. The AL syllabus is organized around linguistic structures (phonemes, morphemes, syntax), which are represented in dialogues and basic sentence pattern drills. Learning materials play a vital role in planning a lesson, which is generally focused on grammar with modified texts or texts written for language teaching purposes being preferred over authentic texts (Guariento & Morley, 2001).

In the late 1960s and early 1970s, the world saw the decline of the method. Language teachers and students, in general, experienced frustration due to its heavy emphasis on rote memorization and drilling, and its failure to produce conversational ability in the foreign language (Hadley, 2001). Since the method did not reap the expected benefits, the method was gradually abandoned in Sri Lanka, too (Gajadeera, 2006).

As the English language teaching methods adopted thus far had failed to deliver as expected, and in order to meet the increasing demand for persons who could speak English for the new jobs that were being created as a result of the open market policy adopted by the

then government of Sri Lanka (Perera, 2001), it was decided to introduce the communicative language teaching approach (CLT) in keeping with the global trend in the late 1980s (Mosback, 1990; National Institute of Education, 1999; cf. Perera, 2001). This method still by and large underlies current foreign language practices in Sri Lanka and much of the world for that matter.

2.1.4 Communicative Language Teaching

Communicative language teaching (CLT) originated from the changes in the British situational language teaching approach dating from the late 1960s (Richards & Rodgers, 2001). Stemming from the socio-cognitive perspective of sociolinguistic theory, with an emphasis on meaning and communication and a goal to develop learners' communicative competence, the CLT approach evolved as a prominent language teaching method and gradually came to replace the previous grammar-translation, audio-lingual (Richards & Rodgers, 2001), and the direct methods.

The introduction of CLT marked a phase of departing from major structure-based principles that had proved quite ineffective in language instruction. CLT never abandoned these principles but rather added a communicative dimension to them, through framing them within the learner's needs. In CLT, drilling is used when necessary, the mother tongue is used to facilitate learning, and errors are tolerated as a natural aspect of language learning.

The CLT approach to syllabus design was completely different from a "structural" approach. Since the classroom goal of the CLT is to focus on all components of communicative competence (grammatical, discourse, functional, sociolinguistic, and strategic), the advocates of the CLT approach proposed a syllabus that reflected the organizational aspects of language with the pragmatics. They suggested that the syllabus be governed by the following factors: the purposes for which the learner wishes to acquire the target language; the setting in which they will want to use the target language; the socially defined roles the learners will assume in the target language; the communicative events in which the learners will participate; the language functions involved in those events; the notions or concepts involved; the discourse and rhetorical skills; the varieties of the target language that will be needed; and the grammatical and lexical content (Van Ek & Alexander, 1980; cf. Richards, 2005).

The syllabus proposed demonstrated a shift from an exclusive focus on language forms to a focus on meanings and functions. The task of giving guidelines and procedures for the implementation of the syllabus based on communicative methodology was taken up by several applied linguists including Brumfit (1984), Johnson (1982), and Littlewood (1981). Throughout their efforts to develop a CLT methodology, the fundamental assumptions were that form and meaning are inextricably linked and that both require attention in L2 instruction (Widdowson, 1978, 1990).

CLT is based on the premise that the primary objective of language teaching is to enhance learners' communicative competence to use language communicatively. Communicative competence means to use the language for meaningful communication. Communicative competence typically includes the following aspects of language knowledge: the knowledge to use language for a range of different purposes and functions; knowing how to vary language use according to the setting and conversational partners; knowing how to produce and understand different texts; knowing how to maintain communication despite limitations in one's language knowledge (Richards, 2005). Savignon (1972) reports that learners who practice communication instead of pattern drills perform as accurately on discrete-point grammar tests, not to mention that their performance in communicative tasks significantly surpassed that of learners who had had no such practice.

Richards and Rodgers (2001) describe other significant characteristics of CLT, including its emphasis on genuine linguistic interaction among learners through grouping, pairing, and cooperative learning, and the use of authentic materials and language-based realia around which communicative activities are constructed. In terms of the type of communicative activities, learners engage in role play, simulation and games in which errors are seen as a normal phenomenon and do not need to be constantly corrected (Littlewood, 1981).

In relation to the respective roles of teacher and student, Richards and Rodgers (1986, p. 78) argue that CLT "often requires teachers to acquire less teacher-centered classroom management skills." Teachers are responsible for responding to, monitoring, and meeting the language learners' needs. The teacher's role is to organize the classroom as a context for communication rather than as a context for the correction of potential errors. Littlewood (1981, p. 94) describes the role of the teacher in CLT as that of a "facilitator of learning", consultant, advisor, coordinator of activities, classroom manager, co-communicator, and a "human among humans." Students are given opportunities to focus on their own learning

process through an understanding of their own styles of learning and through the development of appropriate strategies for autonomous learning (Brown 2001, p. 43).

In the 1980s, two areas of research in the field of second language acquisition (SLA) began to play central roles in further shaping our understanding of CLT. This included the work of North American researchers investigating two separate but related hypotheses about SLA: the input hypothesis (Krashen, 1985) and the interaction hypothesis (Hatch, 1978; Long, 1983, 1996). Both these hypotheses emphasize the central role of meaningful communication in language acquisition.

2.1.4.1 Comprehension hypothesis

The comprehension (input) hypothesis is a part of the second language acquisition theory and was proposed by Krashen (2004, p. 1). It refers to the comprehensible input hypothesis as the subconscious acquisition and not conscious learning of a language. He proposes that learners should be exposed to meaningful and motivating input that is slightly beyond their current level of linguistic competence but sufficiently comprehensible for the learner to understand (Krashen, 1985). Krashen argues that the result of providing learners with plenty of comprehensible input only without producing any output results in the emergence of grammatical structure in a predictable order. Krashen also points out that a strong affective filter (e.g. high anxiety) will prevent input from reaching those parts of the brain that promote language acquisition or in other words become intake. Hence, he recommends second language learning should take place in an anxiety-free environment. Krashen describes his proposition as follows:

First, language acquisition is effortless. It involves no energy, no work. All an acquirer has to do is understand messages. Second, language acquisition is involuntary. Given comprehensible input and a lack of affective barriers [...], language acquisition will take place. The acquirer has no choice. In a theoretical sense, language teaching is easy: All we have to do is give students comprehensible messages that they will pay attention to, and they will pay attention if the messages are interesting. (2003 a, p. 4)

Krashen's attempt to develop a theory to explain second language learning was, however, met with criticism from some researchers. For instance, Gregg (1984) accused Krashen for viewing acquisition as a linear process which not only establishes a cause and effect relationship between input and acquisition but also states that the grammatical structure is acquired in a predictable order. Gitaski (1998) disagrees with Krashen's ideas and claims that his hypotheses cannot be empirically tested, a point also raised by Cook (1993, pp. 65-6), "it makes sense in its own terms but is not verifiable." However, despite the concerns expressed, Krashen's proposals have had a major impact on the field of L2 teaching (Lightbown & Spada, 2013) and his notion of comprehensible input had had a strong influence on early CLT (Verspoor & Hong, 2013).

The role and the importance of language input in enhancing second language acquisition have been emphasized by many researchers (Verspoor & Winitz, 1997; Lightbown, 1992; Lightbown, Halter, White, & Horst, 2002; Rousse-Malpat & Verspoor, 2012; Hong & Verspoor, 2013). In fact, language input has been considered to provide data for acquiring the language. However, over the last decade, the importance given to input has waned and has been replaced with interaction and output. Verspoor & Hong (2013) point out that there is no empirical evidence to suggest that output and interaction only approaches have been instrumental in promoting second language acquisition, but there is ample empirical evidence on the effectiveness of input only approaches for teaching general language knowledge. Their disagreement with the current CLT approach is that it places more emphasis on output and does not give any regard to frequent exposure to input.

Although Krashen proposed that the availability of comprehensible input is the only necessary condition for language learning to take place, the communicative language teaching approach that has been applied to the Sri Lankan context and the current CLT approaches, in general, focus more on "output" and "interaction" (Savignon, 2003), even refraining from placing emphasis on input.

2.1.4.2 Comprehensible output

Supporting his view on the importance of output, Swain (1985) challenged Krashen by arguing that development of a learner's communicative competence does not solely depend on comprehensible input; he suggested that comprehensible output or production also plays a vital and independent role. He added that output is also important to achieve native-like

competence in grammar. He claimed that affording learners the opportunity to practice the input received (both written and spoken) placing emphasis on linguistic accuracy may help them notice how the language is used and any gap "between what they *want* to say and what they *can* say, leading them to recognize what they do not know, or know only partially" (Swain, 1995, p. 126). This, he said, leads to the activation of learners' cognitive processes that might in turn create new linguistic knowledge or reinforce existing knowledge (Mitchell, Myles, & Marsden, 2013). In his opinion, "output may stimulate learners to move from the semantic, open-ended nondeterministic, strategic processing prevalent in comprehension to the complete grammatical processing needed for accurate production" (p. 128).

2.1.4.3 Interaction hypothesis

While Krashen's focus was on the linguistic input to which learners are exposed, another group of SLA researchers with close ties to Krashen's theoretical framework became increasingly interested in how the input becomes comprehensible to the learner. Pertaining to interaction, in the early 1980s, Long (1983) argued that learners acquire a second language easily and quickly if they are given the opportunity to constantly interact with peers who speak the target language with greater proficiency. He also said that greater attention should be paid to the interactions that the learners engage in so as to better understand the nature and usefulness of input for second language learners. Similarly, Hatch (1978) states that input alone is not sufficient to explain second language acquisition. Based on an empirical study, Long (1981) pointed out modifications of conversation--simplification and elaboration (e.g. clarification requests, confirmation checks) that learners make when they "negotiate meaning" and create comprehensible input, which in turn promotes acquisition. Long (1996, pp. 451-2) therefore suggests that *negotiation for meaning*, especially negotiation work that triggers interactional adjustments by native speakers or more competent interlocutors, facilitates acquisition because it connects input, internal learner capacities, particularly selective attention, and output in productive ways. Hatch (1978), one of the earliest proponents of interactionist theory, advocates that learners should be encouraged to interact verbally, to engage in conversational interactions, and that out of these interactions syntactic structures will develop; she disagrees with the view that learners first learn structures and then use them in conversations. All these considerations underlie the Interaction Hypothesis, which is viewed by Larsen-Freeman and Long (1991, p. 266) as more powerful than other

theories because it "invokes both innate and environmental factors to explain language learning".

The combined impact of the comprehensible input hypothesis and the interaction hypothesis on the evolution of CLT has been quite significant, for both hypotheses emphasized meaning-based instruction without attention to language form and/or corrective feedback, reinforcing the notion that CLT was exclusively meaning-based.

Finally, CLT, which is presented as a broadly-based approach to language teaching that a teacher can adapt in the classroom (Richards & Rodgers, 2001), continues to evolve as our understanding of the process of second language learning develops. With this evolution, it is evident that there is a shift towards a methodology that can best be described as an extension of the CLT approach but which takes different routes to achieve the goals of CLT (especially the current CLT which places/puts emphasis on interaction and output, thereby ignoring comprehensible input and frequent exposure to input): a dynamic usage-based approach to language teaching. A dynamic usage-based (DUB) approach to second language teaching is based on a combination of usage-based linguistics and dynamic systems theory.

2.2 Usage-Based Linguistics

Usage-based linguistics refers to the language theory proposed by theorists such as Hopper (1988) and Langacker (1987). Usage-based models of language are theories that argue that language learning is the learning of constructions from actual instances of language use in which people communicate with each other (Ellis & Cadierno, 2009; cf. Smiskova-Gustafsson, 2013). Constructions are a combination of form (language structure) and meaning and [...]

[...] repetition in experience is important for the establishment of a construction, whether it is a word, a phrase or a sequence that has some open categories. Repetition in context is also necessary for the chunk to be assigned a meaning that is partially independent of its component parts. (Bybee, 2012, p. 19)

The (already) established constructions form the base from which a speaker can draw on and use to creatively communicate. According to this model, language structures are a consequence of language use and novel uses shape the future structure of the linguistic system.

Usage-based models, in general, offer five unique insights into second language learning and development. These five principal attributes are as follows: (a) Language is primarily used for communicative purposes--language emerges through language use. (b) Natural language always occurs in context, and the speaker's socio-cultural practices and experiences play a vital role in forming linguistic expressions. (c) Language is learned; the claim that certain universal elements of language structure are innate is rejected. (d) Meaning is not confined to lexical items only; grammatical items are also considered meaningful units. (e) All dimensions of language (syntax, semantics, pragmatics, morphology, phonology) equally contribute in shaping linguistic expressions--language could be explained through a monostratal model (Tyler, 2010).

In fact, "a number of related linguistic theories fly under the banner of Usage-Based Linguistics" (Barlow & Kemmer, 2000; Tummers, Heylen, & Geeraerts, 2005; cf. Eskildsen, 2009, p. 335). The theoretical framework adopted in this study is based on the usage-based model founded on Cognitive Linguistics. Cognitive linguistics emerged in the late seventies and early eighties, especially through the work of Leonard Talmy (1981), George Lakoff (1987), and Ronald Langacker (1987) (see Verspoor, 2008 for an overview). The fundamental principles of Cognitive Linguistics are that human cognition plays a major role in language development and that language develops and changes through socio – cultural practices and experiences of the speaker. In other words, development of linguistic knowledge according to cognitive linguistics is a part of and is influenced by psychological, sociological, and cultural factors. Langacker (1997, p. 240), in describing this linguistic approach states: "Despite its mental focus, cognitive linguistics can also be described as social, cultural, and contextual linguistics." Since language is believed to constantly change and develop through psychological processes and socio-cultural practices, language is viewed as dynamic.

2.3 Dynamic Systems Theory and Second Language Development

2.3.1 Fundamental Characteristics

Dynamic systems theory (DST) is argued to be in line with sociocultural theory, for language emerges through the incessant interaction of its subsystems with cognitive, historical, pedagogical, economic, social, and a number of other systems. DST is also referred to as "complex systems" and "complex adaptive systems" theory (Ellis & Larsen-Freeman, 2009). The term system in DST is defined by de Bot, Lowie, Thorne, and Verspoor, (2013) as [...]

[...] group of entities or parts that function together. Any system is inclusive of subsystems, all of which dynamically interrelate with one another. The term *dynamic* as it is used in the DST approach (or approaches) posits that similar principles hold at every level of the system, sub-system, and sub sub-system, and so on. (p. 200)

DST was first applied to second language acquisition in the late 1990s (Larsen-Freeman, 1997; Herdina & Jessner, 2002; cf. de Bot, Lowie, & Verspoor, 2007). Advocates of DST argue that language is a complex dynamic system because it is nonlinear, chaotic and a highly individual process (cf. Larsen-Freeman, 1997, 2007; de Bot, Lowie, & Verspoor, 2005, 2007; de Bot et al., 2013). Thus, language development cannot be described as progressing smoothly from one stage to the next with constant, modular, separate, and independent systems for phonology, lexis, vocabulary, grammar, morphology, syntax, semantics, and pragmatics (Verspoor & Behrens, 2011, p. 25).

Following from all this, in DST, the language learning process is referred to as second language "development" as opposed to "second language acquisition". de Bot and Larsen Freeman (2011) justify the use of the term "development" instead of "acquisition" as follows:

By using "development" rather than "acquisition", we want to make it clear that linguistic skills can grow and decline, and that accordingly, language acquisition and language attrition are equally relevant outcomes of developmental process. Also, implicit in the use of the term "development" is our belief that there is no point at which it can be said that a language is completely acquired. Its development is ongoing. (p. 6)

The arguments for considering (second) languages as complex dynamic systems revolve around several crucial characteristics (Van Geert, 1994; Verspoor, Schmid, & Xu, 2012). First of all, language development critically depends on initial conditions. Initial conditions refer to the state of the learner at the start of the teaching process. The state of the learner at this point is the combined result of all previous states and experiences in L1 (first language) learning, L2 (second language) learning, aptitude, context and so on. Since the

present level in development critically depends on the previous level (cf. Van Geert, 1994), language teachers and material designers should take this factor into serious consideration. For example, in the present study, the learners' L1 (Sinhala/Tamil) and L2 (English) are grammatically and phonologically very different (e.g., in the Sinhala language, the syntactic structure is Subject Object Verb (SOV) while in the Tamil language it is either OSV or SOV); the learners are from different linguistic backgrounds; they display varying levels of English proficiency; their prior exposure to the target language (formal/informal) differs in length; they come from different subcultures (depending on the religion and ethnicity they belong to), different religions and ethnicities (Buddhism-Sinhalese, Hinduism-Tamils, Christians-Tamils/Sinhalese, Islam-Muslims/Malays), different socio-economic backgrounds, and from different parts of Sri Lanka (Liyanage, 2004).

The second most important characteristic of DST in relation to second language development is the interconnectedness of sub-systems. As Lowie, Verspoor, and de Bot, (2009) state

Language systems are complex sets of interacting variables at many different levels and sub-levels. Examples of levels are cultural, social, psychological and linguistic. Within each of these levels there are again many different sub-levels. For instance, within the linguistic sub-systems there is the sound system, the lexicon, the grammar and so on. These systems and their subsystems are interconnected. (p. 126)

For instance, sounds are connected to words and words in turn are connected to sentence patterns, and sentences are connected to their uses and contexts. A small change in one of these sub-systems will result in a change or have an impact on all other sub-systems. Although the process of language development appears to be a systematic one, it is not so in reality; it is in fact "nondeterministic or stochastic" (Lowie, 2012, p.5).

Prior to the introduction of the dynamic view of language development, language input was assumed to be a one-way stream of information from the outside (e.g. the teacher) to the inside (e.g. the learner) of a system and language learning a stable process. However, from a DST perspective, the language learning process is considered to be constantly changing due to the interaction between different sub-systems-cognitive and social-resulting in differential effects of input at different stages in the learning process (Van Patten, 2002).

Thus, learning is the result of complex (and contingent) interactions between individuals and their environment within which numerous interactions occur due to the interconnectedness of the sub-systems. As Van Geert puts it, dynamic systems are "often interlinked on all possible levels" (2003, p. 658). In such a scenario, no matter how much teachers plan and develop their classes, learners will respond to the input in different ways, and the outcome is likely to be unpredictable and variable resulting in unequal learning experiences in similar learning conditions. Hence, what the teachers should do is present language in a holistic manner in sound-form-meaning combinations and not focus on developing the separate sub-systems--the lexical, the syntax, the semantic system, etc.

The third characteristic of a complex dynamic language system is that language learning or language development "requires resources to keep the process going" (Van Geert, 1995, p. 314). These resources can be internal, such as memory capacity, prior conceptual knowledge, style of learning, aptitude; temporal, such as time spent on learning; informational, such as the amount of knowledge and learning resources (materials, teachers) available; and energetic, such as effort and motivation (Van Geert, 1995). These resources can themselves be sub-divided further. For instance, effort can in turn be divided into either physical energy such as instruction, or mental energy such as learner motivation and attitude towards the target language (Lowie et al., 2009). In DST, all these resources are commonly referred to as "available internal and external factors that enable the development of a dynamic system" (Lowie et al., 2009, p. 128). Clarifying this further, Van Geert states that "as far as the growth process is concerned, resources have two major properties. First, they are limited. Second, resources are interlinked" (1995, p. 315). The limited capacity of a learner's working memory (Baddeley, 1990), or the time that needs to be set aside to one aspect of language as a result of which another aspect is neglected (Skehan & Foster, 1997), are both examples of the first property. These resource limitations and their restrictions, from a dynamic perspective, are regarded as a vital "driving force" (Van Geert, 2003, p. 656) for development, the reason being that the language sub-systems will not only be competing with each other for the limited resources -- in the early stages -- but will also be supporting each (co-developing) other (Van Geert, 1993) through interaction over time, resulting in change over time. The proponents of DST postulate that controlled practice and production should never be forced. This point was already established a long time ago by Postovsky (1974), who found very positive effects when oral practice was delayed at the initial phase of instruction.

The fourth most important characteristic of complex dynamic language systems is iteration--a process associated with DST. In terms of development, iteration, "means that the

present level depends on the previous level" (Van Geert, 1994b; cf. de Bot & Larsen-Freeman, 2011, p. 16). An iterative process is described as taking the output of its preceding state (that is, the change it underwent in the immediate preceding moment) as the input of its next stage (Van Geert, 2003, p. 657), basically moving from iteration to iteration, and leading to the emergence of complex patterns in the developing language system of a learner. Verspoor, Lowie, and de Bot (2009) clarify this point as follows:

[...] the extraction of new information relating to a word's meaning or the learner's repeated attempts to pronounce a foreign sound can be seen as specific bits of information that constitute a sequence of iterations. Even though the learner's attentional resources are used to focus on certain aspects of the input, this does not mean that only those aspects focused on have an impact on iterative learning. (p. 72)

Hence, with regard to language pedagogy, iterating a particular language event (e.g. showing a same movie scene several times) means that new input is added to the existing knowledge. As mentioned above, because of limited resources, during the first exposure to the language event, the learner may only notice certain aspects of the input--probably the gist. The learner will have to be exposed to the same input several times before a complete understanding of the language event--i.e. the form-meaning-use mappings--takes place. Iteration or repetition is also salient in internalizing expressions (form-meaning-use mappings) as each time the learner is exposed to a language event, the previous presentation of the event, "with all its semantic, conceptual, and syntactic information will be refreshed and changed slightly due to the context it appeared in" (de Bot & Larsen-Freeman, 2011, p. 16). Moreover, Lantolf (2006) observed that imitation (repetition), especially as it occurs in private speech" also helps learners internalize the language input, and internalization leads to language emergence.

In building a learner's language system, iteration is at work alongside selforganization, the fifth characteristic of DST. Self-organization can be described as the resultant "state of relative stability and preferred state of being" (Verspoor et al., 2009) by the critical interactions of a dynamic system. Before the system reaches the preferred states, which is referred to as attractors (ibid), it is assumed to be flexible and adaptive (Van Geert, 2008). Van Dijk and Van Geert (2005; cf. Verspoor et al., 2009, p. 74) point out that "a system that is moving from one attractor state to the next may be more open to change than a system that has reached an attractor state." Larsen-Freeman and Cameron (2008), in their definition of self-organization, state that self-organization sometimes leads to a process called "emergence". "Emergence is the spontaneous occurrence of something new as a result of the dynamics of a system" (Van Geert, 2008, p. 182) or phase shift. What emerges as a result of the "phase shift" (the stages between attractor states) is completely different from what it was before, and they call the emergent phenomenon "a whole that is more than the sum of its parts and that cannot be explained reductively through the activity of the component parts" (2008, p.59). Spoelman and Verspoor (2010), in their analysis of the longitudinal data (see below for further details), show that phase shifts can occur even in a stable, competitive relationship between different complexity measures such as word, noun phrase, and sentence construction. Complexity is defined as the "elaboration of the language that is produced and reflects the learner's preparedness to restructure and to try new constructions" (Skehan, 1996; cf. Spoelman & Verspoor, 2010, p. 6).

In line with DST as explained above, the study described in this dissertation assumes that learners' second language system undergoes phase shifts (because of an interaction between internal [e.g. memory capacity] and external [e.g. time spent on learning, input, teachers] variables) in which the system self-organizes and new patterns of understanding emerge. During the phase shift or transitional process (movement of a sub-system from one attractor to another), a great deal of variability in the system and excessive use of a particular target form/expression/structure/pattern can be prevalent before the system stabilizes and settles for a specific target form. Variability is not something that is unique to lower level learners; even higher level learners show variability. Hence, it is assumed that a language teacher cannot strictly teach language or try to induce phase shifts, but can merely create opportunities for learners to frequently interact and engage with the language so that self-organization will arise as a natural phenomenon in the learner's mind without explicit pressure or involvement from outside the system.

Variability and variation are important concepts in DST and second language development (Verspoor, Lowie, & Van Dijk, 2008). Variability can be described as the change that occurs over time within a language learner while variation can be referred to as the difference between language learners due to difference in initial conditions, learning contexts, and many other factors as mentioned above. Variability in learners is present because of the dynamic interactions of the sub-systems of language which can cause any part of the learner's language system to fluctuate from one moment to the next. Fluctuation or

movement of a sub-system from one stage to another can result in variability in learners' language. In this context, Verspoor (2008) points out that, although eventually language learners self-organize their language system, they tend to experience variability during the process of language learning, resulting in a non-linear process of language development. Spoelman and Verspoor (2010) studied a Dutch participant learning beginner-level Finnish, a language that is typologically very different from Dutch and is known especially for its complex case system. The variability analysis that was conducted revealed two stages of learning: in the early stages, there was a great deal of variability in the learner's writing texts; in the more advanced stages, the system seemed to have stabilized without much variability. Spoelman and Verspoor's study also showed that, when the variability analyses of different subsystems were compared, the syntactic subsystem--which has its own subsystems at the word, noun phrase, and sentence levels--started with the simple structures first and was taken over by the more complex structures. This provides evidence for the fact that interaction between accuracy and complexity changes over time, going hand in hand for the most part but competing with each other at some other stages. A pedagogical implication that can be derived from this is that learners develop their L2 through trial and error and that therefore language teachers should neither expect their learners to learn at the same pace or use the same learning path nor place emphasis on complete accuracy in the early stages of learning particularly at beginner/intermediate level (Verspoor, Schmid, & Xu, 2012).

To sum up, DST has six key concepts which present a challenge to the traditional view of language teaching. The traditional perspective views language as possessing separate and independent subsystems (for sound, meaning, and structure) and regards the learner's language development as a linear process. The DST perspective, on the contrary, hypothesizes that language learning is a complex, dynamic, non-linear process. Advocates of this approach suggest that language development takes place through multiple exposures to language expressions that are a combination of form, meaning, and use. They also posit that there can be great variability in the manner in which language develops among the learners (i.e. there can be both growth and decline as a function of time), and there is great variation between different learners due to their individual differences, both learner-internally and in the learning conditions they experience. In terms of change caused due to interaction with the environment and internal reorganization at many different levels, DST proposes that teachers should keep in mind that mistakes made in the process of language development are

inevitable but many will disappear automatically when the learner is exposed to sufficient language input, both in oral and written form.

2.4 A Dynamic Usage-Based Approach

A dynamic usage-based approach is a relatively recent phenomenon that has rapidly gained prominence to describe the development of linguistic knowledge (Robinson & Ellis, 2008). A dynamic, usage-based approach is an amalgamation of Dynamic System Theory (DST), as has been applied to language development in the field of applied linguistics, and usage-based theory in theoretical linguistics, a theory proposed mainly by Langacker (2000). The four key assumptions underlying a dynamic usage-based approach are summarized below.

2.4.1 Key Concepts

First, a dynamic usage-based approach takes a holistic approach to second language learning. Proponents of this approach refute the existence of an autonomous linguistic faculty for the acquisition of grammar and view language as an inventory of meaningful linguistic constructions--including both the more regular and the idiomatic structures with no priority for grammar or syntax--whose (linguistic constructions) organization is constantly updated by (and hence adapting to) language use (Langacker, 2000).

Language use can be explained as instances when the users of a language comprehend or produce language to convey meaning in a particular communicative situation. The more language user communities hear a linguistic construction and use it in that way for communication, the more likely that it will become a conventionalized unit. For example, in Sri Lanka, there are some common words that form a part of the country's spoken English lexicon. The Sri Lankans, for instance, have their own ways of ordering words within an English sentence: "Yesterday only they came?" meaning "It was only yesterday that they came?" Sri Lankans also generally replace the tag questions such as "isn't he?", "aren't they?", "am I?" by the simple "no?" which is a derivative of the Sinhala tag question "ne?" or "ne da?" Rather than saying "Today is Sunday, isn't it?" or "You are a doctor, aren't you?", a Sri Lankan will say "Today is Sunday, no?" (ada irida, ne?), "You are a doctor, no?" (oya dostara kenek, ne?). It is also common for Sri Lankans to double the adjective for emphasis: "He went to different different places" instead of "He went to many different places." These
constructions are conventionalized by their frequent, repeated use by the speech community and referred to as "conventionalized ways of saying things" by Smiskova, Verspoor, & Lowie (2012, p. 126). Larsen-Freeman and Cameron have aptly described this phenomenon as: "Language is the way it is because of the way it has been used" (2008, p. 115).

Second, a dynamic-usage based approach posits that the language system selforganizes into form-meaning pairs or constructions at many different levels (morpheme, word, collocation, phrase, formulaic sequence, clause, and sentence and discourse level utterance). These constructions are of varying complexity (from morphemes to full utterances) and abstractness (from fixed concrete formulae to abstract schematic patterns). Based on this, it is commonly assumed that form is the phonology of the word (the phonological pole), and meaning is the semantic pole. The construction, therefore, at the word level is quite specific. However, at the sentence level, the construction can be more abstract. For example, the English ditransitive construction [someone] [gives] [someone else] [something] is an abstract construction. In terms of form, there are four lexical elements in this pattern. In terms of meaning, the whole construction conveys an abstract meaning of transfer (Steinkrauss, 2009). This explains why, in learning a language, a second language learner should not only learn the specific form and meaning coupling at the word level, but also the abstract representation of form and meaning, aided by some basic cognitive abilities such as association, categorization, and schematization (e.g. Bybee, 1985; Langacker, 1988). Third, a dynamic usage-based approach posits that communicative usage events lead to language development. Usage events are "actual instances of language use, in their full phonetic detail and contextual understanding" (Langacker, 2008, p. 81). The importance of usage events in language development is further clarified by drawing on an example from early language development of children. According to Tomasello (2000), in the case of early language development [...]

[...] children imitatively learn concrete linguistic expressions from the language they hear around them, and then--using their general cognitive and social-cognitive skills--categorize, schematize and creatively combine these individually learned expressions and structures. (p. 156)

Tomasello uses the term imitative learning to refer to "the attempt by children to reproduce the language adults produce for the same communicative function - the reproduction of both the linguistic form and its conventional communicative function" (2000, p. 161). This developmental pattern reveals that early language is based on the language items children comprehend and produce (the language they are exposed to) and provide support for the claim made by advocates of the dynamic usage-based approach that language development is inextricably linked to language use; it is meaning (in context) that creates a need for form and not the other way around. All language forms, from single sounds to words, chunks, clauses, and sentences contribute to and express meaning. As Stubbs point out, "there is no boundary between lexis and grammar: lexis and grammar are interdependent" (Stubbs, 1996, p. 36). Take, for instance, the statement "I think I should make a list". This sentence contains elements of phonology (how each word is pronounced), morphology (how each word means and what the whole sentence means literally), and pragmatics (the intended meaning relying on the manner, place, time, etc. of the utterance delivery). What is evident from this is that every aspect of language is equally important, and that meaning only exists in context.

Fourth, dynamic usage-based theory also postulates that language development is an "item-based", "piecemeal" (Tomasello, 2000, p. 156), and bottom-up process. This concept is derived from studies conducted on the development of linguistic systems in first language acquisition (Dabrowska, 2000; Lieven, 2009; Lieven & Tomasello, 2008; Tomasello, 1992, 2003; cf. Tomasello, 2000). The bottom-up process is viewed as slow and piecemeal and as progressing from an initial reliance on concrete holistic and unanalyzed items such as "lemme-do-it", "I am gonna do it", "gimme-it" toward more schematic and abstract constructions such as "lemme X", I'm-gonna X", "gimme-X" (Tomasello, 2003, p. 106). This view differs from the nativist-linguistic perspective that describes language learning as constructing expressions from words that have already been acquired, and proposes that grammatical rules are part of a pre built-in system, the Language Acquisition Device (Lieven & Tomasello, 2008). These abstract slot-and-frame type constructions are also referred to as chunks, formulaic sequences, linguistic constructions, holophrases (with holophrases being defined as single-word utterances that convey a holistic, undifferentiated communicative intention, most often the same communicative intention as that of the adult expression from which it was at the early stages functioning as a single item for children learned; Barrett, 1982; Ninio, 1992; cf. Tomasello, 2008). Indeed, these chunks can be broken down to a schema, such as *lemme X*, as a result of regular use. Hence, language learning is theorized to be a bottom-up process because schematic representations arise from language use. The

difference is that language learners do not usually use the more abstract constructions in which they just have to fill a gap; instead they have to learn them. Learning or reinforcement as whole chunks happens through repeated exposure and production of such units. According to Bybee (2008), these units are consequently processed as single units and retrieved as such, too. L1 learners are naturally exposed to this process; for them, producing and storing chunks happen automatically. However, Smiskova-Gustafsson's study shows that for L2 learners the process is more an analytic than an automatic one in which they "establish partial 'make-do' form-meaning mappings that are the result of a complex interplay of entrenched L1 constructions and available L2 resources" (2013, p. 134). Despite the process being more analytical than automatic, MacWhinney (2008) argues that chunking is a crucial ingredient for second language learning, for it is much less taxing cognitively to have a set of lexical chunks at the learners' command than to have to work through all the possibilities of word selection and sequencing every time they want to speak.

2.4.2 A Selection of Empirical Studies Based on the Tenets of a Dynamic Usage-Based Approach

Up until now, an increasing number of empirical studies, both longitudinal and crosssectional, have been conducted to provide insights into second language development from a usage-based perspective. Bardovi-Harlig (2002), for instance, conducted a longitudinal study of sixteen adult second language learners of English from various first language backgrounds to examine the developmental sequence of formulaic expressions in the emergence of future time expressions (e.g. *will* and *going to*). The findings suggested that the use of formulaic expressions was subject to individual variation and that learners used formulaic expressions to different degrees when developing form-meaning associations, even within the same grammatical sub-system, such as the tense-aspect system. This provides evidence to the effect that there can be variance from one learner to another in the second language developmental process.

Mellow (2006) examined the longitudinal development of meaningful discourse produced by a 12 year-old Spanish learner of English as a second language. The findings of the study revealed that complex language structures emerged in a piecemeal fashion from the item-based and compositional learning processes that interacted with the learner's environment, the frequent input that was provided, and the functional purposes for which the language was used. This suggests that, in designing a syllabus and in evaluating language proficiency, item-based, sign-based, and compositional analyses of constructions should be considered.

Verspoor et al. (2012) conducted a cross-sectional study to explore the contribution that a dynamic usage-based (DUB) perspective could make regarding the establishment of objective measures to assess L2 learners' written texts, and to - in this way - gain insight into the dynamic process of language development. The authors tried to gain insight into the dynamic development of high school Dutch learners of English by first holistically scoring 437 texts on proficiency level (from 1 to 5, from beginner to intermediate) and then analyzing each text on 64 variables. The statistical analyses showed that broad, frequently occurring measures such as sentence length, the Guiraud index (a measure of lexical richness), total number of dependent clauses, total number of chunks, total number of errors, and the use of present and past tense showed significant differences between consecutive proficiency levels, almost suggesting a linear development. However, when "single variables" (p. 257) (e.g. "schematic chunks", "fixed chunks", "particles") were examined, non-linear development, variation, and changing relationships among the variables became apparent. Between proficiency levels 1 (absolute beginner) and 2 (beginner) mainly lexical changes were evident, between proficiency levels 2 and 3 mainly syntactic changes occurred, and between levels 3 (low intermediate) and 4 (intermediate) both lexical and syntactic changes appeared. The transition between proficiency levels 4 and 5 (high intermediate) was characterized by changes in language specifically relating to the lexicon, with more chunks, particularly particles and compounds. This shows that the focus of the learners vary depending on their level of language proficiency. Another finding was that the learners overused the present perfect tense and the progressive at one stage, suggesting stages of overgeneralization. Verspoor et al.'s study proved that variations prevalent in second language learners' written texts give worthwhile insights into dynamic L2 developmental patterns.

Verspoor and Smiskova (2012) also looked at the developmental patterns of two individual learners: one low and one high-input learner. They noted that the low-input learner showed a random-like variability without clear developmental stages, whereas the high input learner showed this random-like variability early on, but after 2.5 years there was a rather sudden increase of variability and then a new stage. They concluded that the use of chunks develops slowly at first, and then shows a spurt for high-input learners. This finding is in line with the results obtained by Verspoor et al. (2012). Verspoor and Smikova found that

between proficiency levels 4 (intermediate) and 5 (high intermediate), the learners showed a significant difference in the use of chunks: particles, compounds and fixed phrases. Based on these findings, the authors concluded that a high-input condition leads to more chunks, but not immediately, for the L2 learners have to have other language sub-systems in place (e.g. lexicon and syntax) before they start using chunks.

Rousse-Malpat and Verspoor (2012) compared the free-response online oral production of two groups of high school students after two years of instruction. The participants were 14 year-old Dutch native speakers who had already taken lessons in French as a second language at school 3 hours a week for 2 years at the time of the study (which consisted of two sub-studies). One group was exposed to a focus on form method and the other group was exposed to a focus on meaning method called the accelerated integrative method (Maxwell, 2004; cf. Rousse-Malpat & Verspoor, 2012), both of which were inspired by the communicative language teaching approach. The participants of the focus on form method were exposed to the language through listening, reading, and grammar lessons and exercises in the text book with the teacher explaining the difficult points, when needed in Dutch. In other words, this group largely followed the standard FL curriculum as adopted by most (Dutch) secondary schools. The focus on meaning group learned in a high input environment in which the target language, in this case French, was introduced through stories, plays and music. The only language that was used in the classroom was French, and gestures were used to help learners comprehend. The findings revealed that after two years of instruction, the group that was exposed to the focus on meaning method performed better than the group that was exposed to focus on form on oral proficiency and equally well on grammatical accuracy. The general conclusion that can be drawn from this study is that the focus on meaning rather than on form positively affects general proficiency but does not negatively affect grammatical accuracy. However, it may take longer to achieve this accuracy.

Finally, it could be concluded that providing high input and focusing on meaning rather than on form leads to second language development, but this development takes place in a non-linear manner due to variability and variation amongst the learners.

2.5 A Dynamic Usage-Based Approach to Second Language Teaching

The review above has discussed the substantial number of studies that have been carried out to investigate the dynamic process of second language development from a (dynamic) usagebased perspective. This section will present the fundamental concepts of a dynamic-usage based approach (DUB) to teaching a second language, which is also the theoretical base of the current study, and report previous empirical studies that have investigated the efficacy of this approach specifically with regard to teaching.

In applying DUB principles to language teaching and to designing language learning materials, it is important that, as mentioned above, a holistic approach is taken presenting language constructions (also referred to as form-meaning mappings) with their syntactic, semantic, pragmatic, and discourse elements synchronically preferably in meaningful and real-life contexts. In addition, it is imperative that multiple exposures to the language constructions are provided for comprehension, internalization, retrieval, and use.

2.5.1 Input before Output

One of the fundamental characteristics of a DUB approach to second language teaching is the vital focus on input. Van Patten and Benati (2010) define input specifically as the language that "learners are exposed to, that is, language couched in communicative contexts that learners either hear or read" (p. 36) and distinguish it from language that [...]

[...] the instructor might provide as models or examples of how to do something. It is distinct from language that learners process purely for its formal features. It is also distinct from output the learners produce. (pp. 94-95)

Language input is considered a necessary and vital variable in second language development (Gass, 2013; Van Patten, 2004). Richards, Platt, and Weber also recognize the importance of input in second language learning and define it as "language which a learner hears or receives and from which he or she can learn" (1989, p. 143). What, in other words, these authors stipulate is that L2 learners require extensive second language exposure to language input to build their internal linguistic systems and that input needs to be easily comprehensible and message-oriented to be processed effectively by learners. In this connection, Krashen's input

hypothesis continues to assert its influence regarding the role of language input and the necessity of exposure to comprehensible language input. The input hypothesis strongly claims that, for second language acquisition (SLA) to take place, language learners have to have exposure to comprehensible language which is authentic, interesting and/or relevant, not grammatically sequenced, and includes language structures that are beyond their current level (i+1). Krashen, (1981) identified comprehensible language input as "the only causative variable in SLA" (p. 57).

However, some researchers believe that learning takes place only when language is used in meaningful ways by the learner himself/herself. Swain (1985), among others, refers to this notion as output. According to the "comprehensible output hypothesis" developed by Swain (1985), language production (oral and written) can help learners to generate new knowledge and consolidate or modify their existing knowledge. Swain assigns three roles for output. First, output promotes noticing. Only through output do learners realize that their developing language system is faulty and therefore notice a gap in their knowledge. Swain points out that encouraging learners to use language, speech or writing, will force them to produce language correctly, precisely, and appropriately. Second, output helps learners use their language as a way of trying out new language forms. In other words, they engage in hypothesis testing. According to Swain (1995), second language learners try out new language they think might express what they want to say. They find out whether it works or not from the responses and feedback provided by others. This helps the learners to either modify or reprocess output. Third, output helps learners to "reflect on language, allowing learners to control and internalize it" (Swain, 1995, p. 132). de Bot (1996) also argues that production practice can serve to reinforce knowledge that has already been acquired through comprehensible input. Indeed, output promotes noticing and conscious awareness of language and language use. It also provides additional input to learners so that they can strengthen or modify the knowledge they already possess. At the same time, Van Patten, Williams, Rott, and Overstreet (2004, p. 42) argue that there is "little if any experimental data that clearly show that acquisition is somehow output dependent." Moreover, "there is no research that demonstrates that output is necessary and even Swain has softened her claim a bit since 1985" (Van Patten & Benati, 2010, p. 38). It is not the intention of the current study to argue the insignificance of output in second language learning, but this study does operate on the basis of the assumption that early production of the target language is a burden for beginner (or false-beginners, who according to Peaty (1987), have had some exposure to the target

language but are not proficient in the language) and lower intermediate level learners due to their limited language proficiency (Hong, 2013).

Krashen (1981) points out that for L1 or L2 acquisition to take place, early output and output correction should be avoided. Instead, the acquisition environment should be provided with plenty of understandable input, and in a relaxed learning context. In addition it "must be abundant enough for the learner to abstract regularities from concrete exemplars of language use (Zyzick, 2009, p. 14). As Caspi (2010) mentions, learners need to first hear words implicitly, and then they will be able to use these words in sentences. Similarly, Nation (1985, p. 15) proposes that teachers should not immediately focus on speaking. Based on the aforementioned arguments, it could be concluded that [...]

[...] [if] low-proficiency learners are encouraged to produce output before they are exposed to sufficient input, they are put in situations where they have to swim against the current. Some may be pushed back by the strong stream. Others may try to reach the other end of the river in exhaustion and in vain. Since the participants in the current study were low-proficiency learners, they may be considered as poor swimmers, unable to develop linguistically if they are required to swim against the current (i.e. produce language) before they have received sufficient authentic input. Therefore, we assume that the input-before-output view of foreign language instruction would better suit the low-proficiency learners such as these. (Hong, 2013, p. 19)

2.5.2 Frequent Exposure to Input

Over the years, many studies have investigated the importance of frequency for second language acquisition (SLA). Ellis states that "(...) the acquisition of language is exemplar based. It is the piecemeal learning of many thousands of constructions and the frequency-biased abstraction of regularities within them" (2002, p. 143). Thus, the more frequent the input a learner receives, the more likely it is that second language acquisition will be successful. As Diessel argues "(...) the representation of linguistic elements correlates with frequency of occurrence" (2002, p. 8) and this finding has been corroborated by Bybee (1985) and Langacker (1988). Schmitt suggests that "(...) lexical acquisition requires multiple exposure to a word" (2000, p. 137). Based on a review of the vocabulary acquisition

literature, Schmitt (2010) estimates for a word or a chunk to be remembered, learners need at least 8–10 exposures to a word. There have also been other studies that "found a relationship between frequency of exposure and acquisition, in particular for beginning learners (Zahar, Cobb, & Spada, 2001), with sizeable learning gains for words that appeared at least eight (Horst et al., 1998) or more times in a text" (Rott, 2007, p. 169).

Therefore, as long as a learner has heard a word enough times (in a correct, meaningful context) they will be able to correctly and fluently produce that word in the correct context. According to Langacker (1987), this happens through the process of "entrenchment" (p. 59). Langacker refers to entrenchment as being the result of repetitions of cognitive events, that is, by "cognitive occurrences of any degree of complexity" (p. 100). Thus, the degree of entrenchment of a cognitive or linguistic unit correlates with its frequency of use. Conventional units are also known as "linguistic constructions" (Tomasello, 2007, p. 1) and are defined as form-meaning mappings, conventionalized in the speech community, and entrenched as language knowledge in the learner's mind (Langacker, 2008a). They are the symbolic units of language relating the defining properties of their morphological, syntactic, and lexical form with particular semantic, pragmatic, and discourse functions (Bates & MacWhinney, 1987; Lakoff, 1987; Langacker, 1987; Croft, 2001; Croft and Cruse, 2004; Goldberg, 1995, 2003, 2006; Tomasello, 2003; Robinson & Ellis, 2008a; Bybee, 2008; cf. N.Ellis, 2013, p. 365). They can be idioms (storm in a teacup, sweep under the rug), fixed phrases (in vitro, by and large, rock 'n roll), noun compounds (olive oil, laser printer), compound verbs (take a nap, bring about), etc. These units are easily mastered by native speakers; however, their interpretation is perceived as a challenge to second language learners. In 2008, Langacker stated that "mastering a language requires the specific, usagebased learning of a vast array of conventional units" (p. 81). In order for language learning to take place, Langacker elaborates that "learning" or "exposure" should "occur in meaningful context exchanges, approximating socially and culturally normal usage events" (p. 81). Thus, if second language teaching is to be effective, it should focus on multiple exposures to conventional units (also referred to as linguistic constructions, multiword expressions, and formulaic sequences) in meaningful real-life contexts (or real life-like context). Hong (2013) suggests the following:

For example, along with exposing beginning EFL [English as a foreign language] learners to individual words such as *friend*, *school*, and *first* EFL teachers should also

teach them multi-words such as *best friend*, *at school*, and *for the first time*. Multiword verbs such as *make a wish*, *come on*, *get started* and adjective-noun collocations such as *good job*, *hard work*, *long way*, *dark night* should also be exposed to the learners. Formulaic sequences which are often longer conventional units such as *Nice to meet you*, *I know what you mean*, *One thing I am sure of is*, are also recommended to be included in vocabulary instruction. (p. 23)

Based on the arguments in favour of multiple exposures to conventional units, the current study focuses mainly on exposing learners to conventional meaningful units on the assumption that abstract constructions will emerge through the multiple exposure to such units (Larsen Freeman, 1976; Ellis, 2002) and the process of entrenchment. Indeed, mere exposure will not lead to the acquisition of a linguistic construction. As Schmidt (1990) in his Noticing Hypothesis proposes, input becomes intake only if the learners notice the language input provided. Hence, conscious noticing of linguistic forms is necessary in order for learning to take place (Schmidt, 2001).

In the current study, a movie (divided into short segments) was used as a primary resource, and the students were exposed to and made to listen to the same movie scene a number of times throughout the lesson to facilitate understanding and retention of meaning. Listening repeatedly to the same movie scene is in line with so-called narrow listening, which is to listen to a series or large number of authentic comprehensible recordings on the same topic--an extension of Krashen's (1981, 1996) narrow reading proposal. Studies on vocabulary acquisition show that virtually anything that leads to more exposure, attention, manipulation, or time spent on lexical items adds to vocabulary gains. Schmitt (2008) suggests the term *engagement* to encompass all of these involvement possibilities, and concludes that essentially anything that leads to more and better engagement should improve vocabulary learning. Therefore, promoting engagement should be the most fundamental task for teachers and curriculum developers, as well as learners themselves.

2.5.3 Exposure to Authentic Usage-Based Events

Since the introduction of communicative language teaching (CLT), the paradigm of teaching English as a second/foreign language has shifted, which Long (1997) likens to a revolution. This shift signifies a move away from behaviourist psychology and structural linguistics and

toward cognitive and later, socio-cognitive psychology and more contextualized meaningbased views of language (Jacobs & Farrell, 2003). CLT, giving precedence to communication over form, rejects previous structural approaches to language learning and embraces the use of authentic texts, texts that are created for genuine communicative purposes rather than for use in the language classroom. The focus is on teaching of communication through language and not the teaching of language through communication (Allwright, 1979, p. 167). Learning materials prior to CLT (and in countries such as Sri Lanka even after the adoption of CLT) were primarily textbook-oriented with a focus on form rather than meaning and on accuracy rather than communication. Such teaching materials lacked a realistic and meaningful context. With the change in pedagogy, the focus changed to the imparting of language in an interesting and informative manner.

[...] the learning process today is characterized by being informed and entertained simultaneously through a combination of complementary, easily absorbable signals to our senses [...]. Foreign language education nowadays has to be fun (Froehlich, 1999, pp. 150-151).

In designing learning materials, therefore, CLT places emphasis on using authentic materials which are "rich but comprehensible input of real spoken and written language in use" (Willis, 1996, p. 11). With reference to authentic language input, Pinner states, "There are actually numerous definitions of authenticity which have arisen overtime from the research literature" (2013, p. 148). Hong (2013, p. 18), in her study, refers to authentic materials as [...]

[...] real-life language materials, not produced for pedagogic purposes (Wallace, 1992), but for real-life communication by real people. (Nuttall, 2005)

Authentic materials, in fact, are examples of oral and written language used by native speakers in daily situations for their own purpose (Roger & Medley, 1988) and not language specifically produced and designed for language teaching. Tomlison and Masuhara view authentic language as "designed not to transmit declarative knowledge about the target language but rather to provide an experience of the language in use" (2010, p. 400). In their definition, Tomlison and Masuhara even go to lengths to explain what should not be

misunderstood as authentic--"that is, authentic language is not language which prioritizes description over language use". They reject the notion of "breaking language down into compartmentalized rules which can be explained as 'declarative knowledge." Experience is explained as "language as it is used" (Pinner, 2013, p. 148). Thus, grammar drills and repetitive explanations of the rules for forming correct sentences in the target language cannot be considered authentic materials. They are materials that contain "real language" (Bacon, 1989, p. 545) used by speakers to communicate meaning. According to Bacon "real language" must be "intelligible, informative, truthful, relevant, and socio-linguistically appropriate" (p. 545).

Based on these definitions, sources from which authentic materials can be obtained for second language teaching are advertisements, newspapers, magazines, pictures, symbols, radio news, TV programmes, movies, songs, literature, and the internet (Hong, 2013). Hence, using authentic materials in the L2 classroom not only exposes learners to as much real language as possible, but also shows them that language is real, and consequently real information helps them both to learn language and to understand the world outside.

The use of a movie in the current study is very much in keeping with this pedagogical change, which in turn is in line with a dynamic usage-based perspective (the only difference being that contrary to CLT, the DUB approach, in the early stages of language development, focuses more on input than on output). Movies not only provide scope for input but also contain dialogue which approximates spoken language in real life (Schmitt, 2010) and many opportunities for discussion of the semantic nature of the language (Hong, 2013).

Many scholars have concluded that using movie segments for language teaching can be beneficial in many ways: Pezdek, Lehrer, and Simon (1984) state that movie fragments help enhance memory and recovery of information in reading and listening. Berk (2009, p. 4) also explains that a video clip "taps the core intelligences of verbal/linguistic, visual/spatial, musical/rhythmic, and emotional (interpersonal and intrapersonal)." He further added that learning a second language with a video clip involves both left and right hemispheres and controls Alpha and Beta brain waves of the learners and alert them for learning. Berk concludes that the presentation of learning materials in the form of videos, which is a mixture of verbal and visual at the same time, is superior to learning in a condition in which only audio is used. Snyder and Colon (1988) suggest that movies enable the learner to picture or to visualize the events, characters, narration, story, and words in the context. This helps the learner form associations, and as Anderson and Reder (1979) point out the more associations

the learner forms the easier it is to remember the words/phrases/lexical units in the learning material. Mayer (2002) holds the same view. He states that when learners are exposed to both pictures and verbal forms, they make a mental representation of the material which has been presented to them. Hanley, Herron, and Cole (1995) are of the opinion that movies help develop writing skills through providing interesting and motivating clues to accompany audio or written inputs, and in that way they assist comprehension and production of foreign or second language input/output. According to Mayer and Moreno (2002), presenting materials to learners in verbal and pictorial modes can be very useful for learning outcomes. Tatsuki, (2006) and Schmitt (2010) state that the language of movies provide authentic models since they are everyday natural language. Verspoor and Hong (2013, pp. 11-12) point out that [...]

[...] using movies in second language instruction is very much in line with early communicative approaches in the use of input and authenticity (Abbs, Cook & Underwood, 1980), in the focus on meaning and communication such as in the natural approach (Krashen & Terrell, 1983) and use of dialogues to develop strategic competence (Roberts, 1986).

They also outline many good reasons for using movies in second language teaching: in a good movie, actors act as naturally as possible, coming as close as foreign language learners can get to "real life"; movies also provide examples of cultural, social, or pragmatic issues of which the teacher can take advantage to provide scaffold, by asking leading or probing questions to extend or elaborate the knowledge the learner already possesses; movie segments also work as a "soap opera" creating interest and curiosity in wanting to know what happens next; repeated exposure to the movie scenes gives learners the benefit of noticing linguistic features that they have missed in the earlier viewing. Verspoor and Hong (2013), however, warn that too many exposures to the movie scenes could have a negative effect on the motivation of advanced learners who are believed to process input faster and would want to move on. They suggest that depending on the level of the learner the teachers should strike a balance, for repetition is indeed a significant factor in internalizing expressions. What they suggest is that advanced learners be provided less exposure and beginner and lower intermediate learner be exposed at least 8 times (2013, p. 10). Stewart (2006) posits that movies initiate authentic conversation that will not occur if learners are merely asked their opinions on textbook scenarios.

Concerning the use of movie captions (subtitles), Paivio (1986) claims that, in the case of second or foreign language learning, better recall and appropriate use of language result from richer and more meaningful referential interconnections (e.g. visual and textual). Similarly, according to Mayer (2001), learning is promoted when written text is integrated into an illustration/video/visual. d'Ydewalle, Van Rensbergen, & Pollet (1987) showed by comparing a group of American subjects who were not familiar with watching movies with subtitles and a group of Dutch-speaking subjects who were familiar with subtitles that "Reading subtitles is preferred because of efficiency in following and understanding the movie" (p. 650). Their investigation revealed that both groups showed equal interest in reading the subtitles and that the amount of time spent reading subtitles was not significantly different with or without sound even in subjects who were fluent in the language presented in the soundtrack (and would theoretically not need the subtitles). Borras and Lafayette (1994) investigated the use of digital video with and without subtitles by a group of advanced learners of French at Louisiana State University and concluded that learners in the sub-titled condition performed significantly better in comprehension and production of the language than the learners in the no subtitled condition. Guillory (1999) also examined the effect of digital video clips with captions on listening comprehension of a group of beginner French learners. For the experiment, the learners were divided into three groups: no captions, full captions, and keyword caption. On the basis of the results obtained, Guillory concluded that the full caption group performed better than the keyword caption group although it was evident that both caption conditions were beneficial for students' listening comprehension. In addition, Sydorenko (2010) found that learners developed better form-meaning links with new vocabulary when video (and audio) is combined with captions, for they associated them with visual images while they improved their listening comprehension when video (with audio) is non-captioned. Although Sydorenko did not specifically say what kinds of lexical items were learned, the written reports offered by participants in the study suggest that "Most words I learned were accompanied by actions on screen, such as sadites' ["sit down"], proshu vas ["after you"]..." (p. 44). As acknowledged by a number of researchers (e.g. N. Ellis, 2013), language is full of formulae which are attached to real life context, and formulaic items like stay away, after you, and hang on may be ideally learned through the medium of captioned video. Markham, Peter, and McCarthy (2001) have a slightly different view on the use of caption. They state that a cycle of repeated viewing, beginning with L1 captions, then with L2 captions, and eventually with no captions would benefit learners in understanding a

video. However, some researchers have criticized the use of providing sub-titles stating that students become accustomed to the written support and no actual gain is made in language learning which is the primary focus. In this regard, Taylor (2005), in his research on some Spanish learners, found that the group that was not given captions performed significantly better in comparison to the group that was given captions. He concluded that captions can distract and confuse the learners. Similarly, Caimi (2006) found that with captioned texts, the students' concentration was primarily on reading rather than on listening. With regard to subtitles and the effect of split attention (learners dividing their attention between the captions and the visuals), several studies have shown that the danger of split attention can be prevented and the benefits of providing subtitles can be accrued if the written text elements are placed next to the corresponding parts of a visualization to prevent split attention (Chandler & Sweller, 1991; Chandler & Sweller, 1992; Mayer, 1989; Mayer, Steinhoff, Bower, & Mars, 1995; Moreno & Mayer., 1999; Tindall-Ford, Chandler & Sweller, 1997; cf. Schmidt-Weigand, 2006, p. 14).

Drawing on insights from the interaction hypothesis that only the input that is noticed or apperceived (detailed above) can become beneficial, Chapelle's suggestion that instructional materials should contain features that enhance input through modifications (2003, p. 40) such as added redundancy and change of the input mode, and studies that favour the integration of text into visuals, in the current study non-captioned video segments with sounds were initially introduced to the learners, and once they had comprehended the gist of the scene, video (and audio) combined with captions in the target language was presented to prevent cognitive overload and split attention. The option of being able to choose to watch the video segments either with or without subtitles was also made available. This was done on the assumption that the participants, depending on their English language proficiency, would either make use of captions as a backup for listening or as a necessary part of the listening process (Pujolà, 2002), or as positive reinforcement as believed by Canning-Wilson and Wallace (2000) or not make use of them at all (Pujolà, 2002).

2.5.4 Scaffolding to get Meaning Across

The word scaffolding has been used numerous times in this chapter. Scaffolding is generally referred to as the assistance given by the teacher or more knowledgeable peer in providing comprehensible input and moving the learner into the so-called zone of proximal

development (Bruner, 1978). The zone of proximal development, a concept proposed by Vygotky is [...]

[...] the difference between the child's developmental level as determined by the independent problem solving and the higher level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers. (1978, p. 86)

Even though Vygotsky's notion focuses on child language acquisition, this same philosophy can be applied to second language learning in which the main issue encountered by learners, especially beginning and lower intermediate level, is their inability to use language in an increasing range of contexts. In order to develop this ability, learners need to have an understanding of the cultural and situational contexts in which they have to use language, and then have the language resources to realize the meanings appropriate to those contexts. Vacca (2008) suggests that when guided, supported, and provided with the necessary attributes, students become more responsible for their learning, more motivated, and more successful. However, scaffolding can be a mammoth task which can only be handled with instructional and visual scaffolding. Applebee and Langer (1983) used the notion of instructional scaffolding to describe essential aspects of formal instruction. In their view, learning is a process of gradual internalization of routines and procedures available to the learner from the social and cultural context in which the learning takes place. In instructional scaffolding, the language learner is assisted in a new task by a more skilled language user who models the language task to be used verbally and/or in writing by asking leading or probing questions to extend or elaborate the knowledge the learner already possesses. In this manner, rather than evaluating the learner's answers, the teacher is supporting, encouraging, and providing additional props. It is suggested that as the learner's competence grows, the scaffolding should be gradually reduced until the learner is able to function autonomously in that task and generalize to similar circumstances.

Dickson, Chard, and Simmons defined instructional scaffolding as "the systematic sequencing of prompted content, materials, tasks, and teacher and peer support to optimize learning" (1993, p. 12). They believed that scaffolded instruction optimizes student learning by providing a supportive environment while facilitating student independence.

Second language learners are particularly dependent on scaffolding, but often the purely oral scaffolding undertaken by the teacher is not enough. ESL students greatly benefit from the type of scaffolding that makes extensive use of visual aids -- hence the term visual scaffolding. Visual scaffolding (Herrell & Jordan, 2004) is described as the support that includes images and words that can be seen as well as heard. Visual scaffolding is an excellent way to provide comprehensible input to second language learners so that not only will they learn the essential subject content but also make progress in their language learning. When students can see an image of what the teacher is describing or see the key words that the teacher is explaining, this not only serves to make the input considerably more comprehensible, but serves to remove the affective filter which results from the fear or boredom that results from understanding very little in class (Krashen, 1982). It is also important that scaffolding be provided to only those students who need it and only when they need it. When students learn in an individual self-paced learning environment by way of a self-instructional material-centered multimedia computer programme, for instance, instructors are expected to adapt to the environment and their scaffolding needs to be adjusted to fit this new learning medium. Hence, in the current study, learning support was provided to the students through both instructional and visual scaffolding--(general) questions at the beginning, explanation and paraphrasing of chunks (through the recorded voice of a teacher in the self-instructional material-centered multimedia computer programme and by the class teacher in the classroom based teacher fronted programme), pictures/illustrations, movie segments (both audio and video), multiple exposure to the segments, captions (onscreen text in the same language as audio), and review questions at the end of each module or scene.

2.5.5 DUB Implications for a CLT Approach

Thus, based on the theoretical insights provided, it can be concluded that an effective second language teaching approach should focus on providing the learners with a great deal of authentic language input and multiple exposure to the language in context to establish function and meaning -- for the establishment of a construction, be it a word, a phrase, or a sequence that has some open categories. The language the learners are exposed to should be within their zone of proximal development, and instructional and visual scaffolding should be provided to help learners remain focused on their goals. Moreover, the language input provided should catch the learners' interest and promote learning engagement. Thus, in the

current study, a movie that was considered suitable for Management undergraduates was chosen as a viable resource for providing interesting and real-life language input.

2.5.6 Studies in line with a DUB Approach to Second Language Teaching

Usage-based approaches to language have gained increasing attention in the last two decades but a dynamic usage-based approach to second language teaching came to be recognized only recently. In the following section, an empirical study that embodied all elements of a dynamic usage-based approach to second language teaching, and a few others that looked at different aspects (in isolation) will be reviewed.

2.5.6.1 The effect of a dynamic usage-based approach to second language

Hong and Verspoor (2013) developed a communicative language programme for undergraduates of Can Tho University, Vietnam. The programme was based on the tenets of a dynamic usage-based approach, and the focus was on the provision of quality authentic input through two movies. The programme mainly relied on a sociocultural approach to teaching and empirical findings in the L2 literature. The experimental programme, which was tested in a semester-long experiment, attempted to address not only linguistic but also sociolinguistic and pragmatic competence by addressing language more holistically as it occurs within (almost) natural usage events. A total of 169 beginner level university students aged between 18-20 years participated, of which 74 were control participants and 95 were experimental ones. Results showed that students in the experimental condition that had exposure to authentic language, no speaking practice, and no grammatical explanations outperformed the students in the control condition that had more interaction, and lessons in four language skills including grammar in general proficiency, writing, and linguistic selfconfidence (Hong, 2013). In addition, the findings also revealed that the experimental method had a positive effect in productive general English proficiency (speaking), in learning and using chunks, and in willingness to communicate in English.

2.5.6.2 *Effect of input*

Verspoor and Winitz (1997) conducted two investigations to assess the effect of providing comprehensible input through vocabulary instructions in which the vocabulary items were arranged into lexical fields with their "closely associated semantic networks", for example, "concepts of walking" included "terms such as skip, hop, jump, stagger, saunter, shuffle, trespass, cane, walker, trample, stampede, ascend, march, parade, stride, etc." (p. 65), in a 15week semester long experiment. In the first investigation, they compared the English language proficiency of an experimental group of students to a control group of students. The experimental group followed a language listening programme that was designed to teach several lexical fields implicitly in a lab setting. The students in the experimental group were each given 13 books designed to teach a common lexical field and the accompanying cassettes and told to listen and read each book according to the sequence prescribed as many times as the students wished before going to the next one. The students in the control group attended a formal English class in which they were given reading, speaking, and grammar lessons. They also met with a language teacher on an individual basis one hour per week for conversation and pronunciation practice. With regard to the experimental group, the number of hours of participation varied, ranging from 10.33 hours to 53.00 hours. The findings revealed that the experimental group that followed the lexical field approach showed greater language achievement on the Michigan Battery Test. In the second investigation, two groups of international students enrolled in the university's academic and English as a second language programmes that took place for 15 weeks during the semester of either Fall 1990 or Winter 1991 participated. In this investigation, unlike in the first investigation, both groups were assigned to the lexical field instructional programme (same as investigation one) and a three hour course (per week) in which they viewed movies and discussed the content and language with a teacher. In addition, one of the two groups was assigned to an English course of speaking or grammar for three hours a week. The findings revealed that there was no significant difference in the language achievement of the two groups of students on the same test.

Based on the results obtained, Verspoor and Winitz concluded that input provides a necessary condition for language learning but factors other than input such as an individual's belief about how language is acquired, past language experience, language learning style also simultaneously operate to influence the language achievement of individual subjects.

2.5.6.3 *Effect of a comprehension based approach*

Lightbown (1992) and Lightbown et al. (2002) reported a longitudinal experimental comprehension-based programme in which they compared the English language performance of grade 4 and 5 students with two or three years of exposure to reading and listening to that of students with two or three years of audio-lingual instruction. A total of 800 students whose first language was French were involved in the study, and a range of tests, tasks, and questionnaires were administered before the students began their English classes. This test battery was administered at the end of the first year, and at the beginning and end of two subsequent years. The finding revealed that students in the experimental comprehension based programme performed as well as the students who were part of the control programme on measures of listening and reading comprehension, vocabulary recognition, and spoken English production (measured on the basis of a picture description task and an oral elicited imitation task) which the researcher admits was rather unexpected.

In a follow-up study, the same students were tested again after six years of learning English. In this study, the experimental group of students had an opportunity to also "see printed texts while simultaneously hearing those texts being read clearly and slowly by a native speaker" (Lightbown et al., 2002, p. 429). Data were gathered from more than 225 students, but for quantitative analyses only data of those students from the original study who had complete records were retained. In all, there were two experimental groups of 30 and 43 students respectively and two regular groups of 27 and 14 (RG2) students respectively. The students of the first three groups had participated in the original programme, but the second regular group (RG2) had not, and no ESL data was available prior to Grade 6. Students continued to follow their respective teaching approaches. The researchers administered test batteries at the end of Grades 6, 7, and 8. The test battery administered at the end of grade 8 included an additional component -- a written text, which was later analysed for accuracy, among other analyses. The finding revealed that at the end of grade 6 or 7 there were no significant differences between the experimental and the controls groups on measures of listening and reading comprehension, vocabulary recognition, ability to produce spoken English on a picture description task, and an oral elicited imitation task. At the end of grade 8, the experimental and control groups performed equally well on measures of comprehension and some measures of oral production but not on measures of written production. Based on the findings, Lightbown et al. (2002) concluded that [...]

[...] by the time they reached secondary school, students who had remained in essentially comprehension-based instruction had maintained a level of comprehension that was comparable to that of students in the regular programme. However, student in the regular programme who were receiving more guided instruction, were able to do things with English that the student in the unguided learning situation could not. (p. 452)

2.5.6.4 *Effect of narrow listening*

Dupuy (1999) conducted a survey of beginning and intermediate college French as a foreign language students' reaction to narrow listening, and their assessment of its impact on their (beginning and intermediate college French students) language development. The topics that were selected were travel, food, house, environment, media, music, and books. Each topic was recorded by six native speakers, both males and females, who were given some topic prompts and asked to speak in a conversational manner (i.e. the speech contained characteristics of natural and informal language: redundancies, pauses, self-corrections, falsestarts, varying word rate and intonation, etc.) as if they were speaking to a friend (Dupuy, 1999, p. 353). A total of 255 students in the first (n=50), second (n=75), third (n=123), and fourth (n=7) semesters respectively participated in the study. The students were told that they could listen to the tapes that were made available in the language lab as many times as they wanted and at their own pace. Data were collected by means of a questionnaire which contained six questions given to the students at the time of requesting the tape. The students were requested to return the completed questionnaire at the same time of returning the tape. Results indicated that the majority of the students found narrow listening done at their own pace to be very effective for language acquisition. The students also found self-paced narrow listening to have increased their listening comprehension the most, with fluency, and then vocabulary to lesser degrees. Approximately 43% of first and second semester students also found narrow listening to be more effective than or at least as effective as listening to lab tapes accompanying the textbook used in the classroom. The third and fourth semester subjects (66.5% and 86%, respectively) found narrow listening tapes to be much better than the textbook-accompanied tapes. Results also revealed that the approach was more beneficial for beginning-level students (the students of first and second semesters) than the students in

the more advanced semesters. In addition, the students found narrow listening to be interesting and helpful in increasing their confidence.

2.5.6.5 Effect of visual media

Exposure to visual media such as commercial language videos, soap operas, full length movies, as well as the pedagogical value of such materials, and the possibility of using them at all levels of EFL/ESL settings in order to enhance different language have been the focus of numerous studies.

Herron, Morris, Secules, and Curtis (1995) compared the effect of video-based to text-based instruction in the foreign language classroom using a commercial language video and a textbook. The participants were first and second year university students learning French as a foreign language at Emory University. The control group (n=14) focused on learning (new structures, vocabulary, reading aloud, cultural information) using the textbased approach while the experimental group (n=14) watched ten minutes of drama on Fridays, wrote answers in French to a series of comprehension questions on weekends, and watched twenty minutes of the explanation section of the drama on Mondays and Wednesdays. While the students were watching the drama, the instructor, who was nonnative, stopped the video every one or two minutes to check if the students understood it all. Students, while watching the explanation section, stopped the explanation portion occasionally for repetition of key structures, for further explanation of grammatical points, for comprehension checks, and for discussion of cultural differences. The experimental class participants were not only exposed to more spoken language from the video but also to more and qualitatively better teacher talk, for the instructor always used French in the explanation part. All participants took a total of five tests during the course of the study: pre-test, midsemester French 101 test, final French 101 test, mid-semester French 102 test, and final French 102 test. The tests were both researcher-designed and standardized (the American Council on the Teaching of Foreign Languages Oral Proficiency Interview was used to test oral proficiency, the University of Minnesota Entrance-level Proficiency Tests were used to test listening, reading, and writing progress). Results revealed that classes that used videobased instruction scored considerably higher in overall listening comprehension than did the classes which used traditional, text-based approaches with no accompanying video. Furthermore, gains in listening comprehension did not occur at the expense of other skills,

which were shown to be at the same level as the text-based approaches at the end of the study.

Wevers (1999) examined the effect of an authentic soap opera on students' listening comprehension and oral production. Two groups of students--an experimental and a control group--participated in an 8 week experiment, with the classes meeting daily for 60 minutes. Both groups of participants were learners of Spanish as a foreign language. The study was conducted in the second semester at the University of New Mexico. The control group (n=17) followed the conventional curriculum based on the tenets of CLT and the Natural Approach. The experimental group (n=20), in addition to the conventional curriculum, watched two episodes per week, for about 45 minutes each day, of the Spanish-speaking television drama Maria Mercedes (Pimstein, 1992). Before viewing each episode, the teacher gave the participants a short summery in English of the soap opera. All students took pre- and postintervention tests. Results of the experiment revealed that the experimental group was significantly better than the control group in listening comprehension, used more words in discourse, and displayed more confidence in producing output. The study concluded that authentic television programmes provide high levels of input and leads to improvements in students' output. In this case, although the experimental group performed significantly better than the control group on the measures described previously, it should be noted that the experimental group was exposed to more input than the control group.

2.6 Autonomous Learning

The concept of autonomy was first introduced into the field of language teaching in 1971 and was defined as "the ability to take charge of one's own learning" (Holec, 1981, p. 3; cf. Benson, 2007, p. 22). Autonomous learning, in the early stages, focused mainly on achieving total independence (Dickinson, 1987; cf. Lu, 2012, p. 608).

Since then much confusion as to its definition as well as operationalization has characterised the field. Autonomy has been more broadly defined, as "(...) a process that enables learners to recognize and assess their own needs, to choose and apply their own learning strategies or styles eventually leading to the effective management of learning" (Penaflorida, 2002, p. 346; cf. Çelik, Arkin, & Sabriler, 2012, p. 99). According to this definition, learners are expected to take responsibility for their own learning, and as such have the right to determine which direction their learning should take. Benson expresses a

similar view. He perceives autonomy not as "a method of learning, but an attribute of the learner's approach to the learning process" (2013, p. 2). What this, in other words, means is that, in the field of language teaching, attention has been focused on the process of attaining autonomy and not on "(...) its intended outcome, the development of proficiency in a second or foreign language" (Little, 2007, p. 14).

Autonomy, then, is generally a very complex concept with a multitude of interpretations. Benson (1996) calls it [...]

[...] a multifaceted concept with political, psychological, and philosophical ramifications. Its application in the field of language learning is highly problematic, and we cannot expect to find an off-the-shelf concept of autonomy neatly packed and ready for use. (p. 27)

Thus, there is no single definition of autonomy (Benson & Voller, 2014), and there are differences in the way it is perceived and interpreted. For instance, some scholars have used the term independence as a synonym for autonomy (Sheerin, 1991), while yet others, like Dickinson (1992) for example, associate 'autonomy' with the idea of learning alone and 'independence' with active responsibility for one's own learning'' (Benson & Voller, 2014, p. 2).

With regard to the pragmatic application of autonomy, Benson (2007) reports that "in the late 1990s, a number of writers sought to operationalize the notion of autonomy as a matter of degree" (p. 23). Benson (2001) himself suggested that autonomy should be viewed as a continuum rather than a dichotomy and proposed a model of learner autonomy that involved [...]

[...] dimensions of control over language learning and teaching processes grouped under three main headings–learning management, cognitive processing and the content of learning (cf. Benson, 2007, p. 24).

These conceptual differences can also be seen in the implementation of autonomy in language teaching. Dickinson (1987), for example, referred to autonomous learning as *self-instruction*, *self-direction*, *self-access materials* and *individualized instruction*. A decade later, Little and Dam (1998) included terms such as *humanistic language teaching*,

collaborative learning, experiential learning and the learning centered classroom (Blin, 2005, p. 7).

According to Benson and Voller (2014), the word autonomy has been used in at least five different ways in the field of language education:

- 1. for *situations* in which learners study entirely on their own;
- 2. for a set of *skills* which can be learned and applied in self-directed learning;
- 3. for an inborn *capacity* which is suppressed by institutional education;
- 4. for the exercise of learners' responsibility for their own learning;
- 5. for the right of learners to determine the direction of their own learning.

(pp. 1-2)

Moreover, many different strategies and many different media have been adopted to foster autonomous learning. One such medium is computer technology (Castellano, Mynard, & Rubesch, 2011, p. 12). Technological developments have played a major role in the promotion of autonomy in field of education and "CALL resources offer learners a range of affordances that are undeniable" (Godwin-Jones, 2005; Zhao, 2005; cf. Reinders & Hubbard, 2013, p. 5).

2.7 Computer Assisted Language Learning (CALL) and Learner Autonomy

Computers play a vital role in the field of language learning and, as Warschauer points out "learning to read, write, and communicate in the electronic medium is valuable in its own right" (Warschauer, 2000, p. 46; cf. Blin, 2005). Computers, with their capacity to incorporate text, sound, images, and video all at the click of a button, have been considered more interactive, more appealing, and more effective than any other self-instructional materials. Computer-assisted language learning (CALL) is broadly defined as "the search for and study of applications of the computer in language teaching and learning" (Levy, 1997, p. 1) and is now used in a variety of instructional situations (Fotos & Browne, 2004, p. 3).

Beatty defines it as "any process in which a learner uses a computer and, as a result, improves his or her language" (2013, p. 7; cf. Hubbard, 2009, p. 1). According to Beatty, this definition of CALL incorporates current practices in the teaching and learning of languages by means of a computer. CALL generally deals with issues of "materials designs,

technologies, pedagogical theories, and modes of instruction" (Beatty, 2013, p. 8) and is assumed to be flexible enough to serve a variety of learning theories" (Higgins & John, 1984, p. 17; cf. Chapelle, 2001, p. 9).

In the past, language information through CALL was not presented in a real world context but in the form of, for instance, grammar drilling and tutorials. Underwood very aptly referred to this phenomenon in the following manner:

It is important to stress here that this negative view [of computers as useful only for explicit learning through drills and tutorials] by no means reflects limitations in computers themselves, but rather limitations in the programme being written (1984, p. 50; cf. Chapelle, 2001, p. 9).

However, with the advancement of technology and the development of multimedia technology which has added a new and interesting dimension to language teaching and learning, it is not rote learning anymore, but integrated learning of the four basic skills of listening, speaking, reading, and writing (Davies, 2007) in a more comprehensive intercultural format. In multimedia learning, information is presented to the learners "(...) by means of a digital technical system and using various modes of information presentation, such as text, pictures, graphics, or numerical expressions, and multiple presentation modalities" (Brünken, Plass, & Leutner, 2004, p. 113).

The present stage of CALL is referred to as integrative CALL (Warschauer, 1996b; cf. Warschauer & Healey, 1998, p. 58), which came into being as a result of the demand for integration of learners in authentic environments (ibid). Integrative CALL, which seeks to integrate the four skills of listening, speaking, reading, and writing as well as technology more fully into the language learning process, has been made possible "by the development of powerful desktop computers that support rapid use of the Internet, local area networks (LANs), multimedia, and linked resources known as hypermedia" (Warschauer, 1996a; cf. Fotos & Browne, 2004, p. 6).

Multimedia also provides a number of interactional modifications, such as repetition of a dialogue; elaboration/description of vocabulary, phrase or cultural background; explanation of grammar points; and confirmation of understanding by repeated listening or viewing.

In the field of second language learning, interactional modifications have been recognized as a salient feature (Long, 1980, 1981, 1983) in native and non-native speaker discourse. The types of interactional modifications identified in native- non-native speaker discourse include self-and other-repetitions, expansions, confirmation checks, clarification requests and comprehension checks (Ellis, 1986).

Multimedia can be beneficially used to actively engage the learner in his or her own learning process, provide scaffolds and support, and control the mode of presentation. In reporting the benefits of multimedia learning, Plass and Jones state that "in order to facilitate second language acquisition, multimedia can be used to enhance the input and increase the likelihood of noticing" (2005, p. 472). Similarly, Reinders and Hubbard suggest that

Multimedia resources may also give learners more control over the way they access target language input. For example, a movie can be watched with or without subtitles. Individual learner preferences and learning styles can thus be accommodated more easily. (2013, p. 8)

While admitting the potential benefits of multimedia language learning (see discussions in Al-Seghayer, 2001; Chun & Plass, 1997; Duquette & Painchaud, 1996; Ehsani & Knodt, 1998, cf. Kim & Gilman, 2008, p. 114), it should also be mentioned that, in the implementation of multimedia for language learning, precautions should be taken, for, as Chapelle states, "(...) most learners do not know how to work autonomously to their best advantage. Instead, they need guidance from appropriately designed learning materials and teaching" (2005, p. 587).

Over the years, technology, especially multimedia, has been recognized as a vital tool in fostering autonomy, and technology enhanced language learning is gaining immense popularity. The general belief is that technology facilitates different learning styles; that computers and the Internet provide a wealth of resources to independent learners; and that certain software packages can offer a complete curriculum for language learning. However, technology cannot promote learner autonomy by itself; it is merely a tool, and it does not by itself promote learner autonomy. In order to foster autonomy, what technology can do is provide opportunities for learners to take responsibility for their learning and help them to make meaningful choices (Barnett, 1993). At the same time, there are many commercially produced software packages that claim to foster learner autonomy. In addition to commercially produced software, there are plenty of websites that learners can easily access. These websites may be providing language learning content which learners find beneficial. However, how effective they are for autonomous language learning is a matter of concern and has to be exercised with caution, for learners can be overwhelmed by the multitude of information and may find themselves unable to sift through to pick out what is relevant. Castellano, Mynard, and Rubesch (2011, p. 14) report that [...]

[...] learners can be overwhelmed by the sheer amount of authentic materials on the Web. They are likely to need guidance in finding appropriate sites (Murray, 2005), and also in understanding how to use them for language learning purposes (Mynard, 2009). Potential computer-based learning activities may either leave learners to struggle alone or direct them too much (Barnett, 1993).

Barnett (1993) states that the potential learning activities posted by these websites may either provide excessive direction or leave the learner in the lurch. Sheerin (1991) holds the view that overloading the learners with information and providing them with a multitude of opportunities to learn in alternative ways without any guidance is not autonomous learning. Murray (2005) thinks that learners need guidance to finding the sites that are most appropriate. Reinders and Hubbard, in commenting on CALL materials, state that [...]

[...] such materials frequently lack the necessary support structures, such as clear instructions or even answer keys, and do not explicitly encourage students to reflect on the learning process. Materials not designed for learning purposes will offer even less guidance. (2013, p. 11)

Brydges, Dubrowski, and Regehr point out learners "do not necessarily capitalize on learning opportunities when left to their own devices" (2010, p. 1833). Chapelle (2005) also emphasizes on the need for learner guidance through appropriate learning materials. Hence, in designing learning material for autonomous learning, Brydges et al. suggest that "validated learning principles" should be used, and a learning environment where learners are "given control of an element of practice and therefore are metacognitively, behaviourally, and

motivationally active in their learning" should be created (2010, p. 649). Moreover, learners should be given more specific training, not only on how to use the software, but also on the skills necessary for self-directed learning (Barnett 1993; Reinders & Hubbard, 2013, p. 5).

2.8 Self-Paced Learning

Multimedia materials enable language learners to practice language through a multitude of modalities, at their own pace, choosing their own route through the learning materials. Mayer (2001) and Craig, Gholson, and Driscoll (2002) stated that when learning content is presented in a range of media forms, and when the learner can exercise control over the content, learning can occur at a deeper level. The control feature available in multimedia gives the learner the opportunity to choose the pace and path of the learning process, the learning content. The interactive nature of multimedia provides easy access (through an internet connection) to websites that provide authentic learning materials and learning. Control and interactivity can lead to active engagement of the learners in the learning process, and this has been reported to have facilitated a deep learning process (Evan & Gibbons, 2007). It is also reported that through adjustment of the "amount and difficulty of input" (working at one's own pace, for instance) and difficulty (through scaffolding, for example), learners can avoid the danger of frustration they might otherwise have faced through "information overload" (Pennington, 1996, p. 9; cf. Kao & Windeatt, 2014, p. 4).

It is widely accepted that there are differences among learners in age, personality, language aptitude (e.g., phonemic coding ability), cognitive and learning style, L2 proficiency, learner strategies, and motivation which have been associated with a broad spectrum of variation in SLA (Dörnyei & Skehan, 2003; cf. Rimrott, 2010, p. 29).

Research on the effectiveness of technology-based self-paced instruction reveals that "this type of instruction improves performance and that students master the learning objectives in significantly less time than students in group-paced instruction" (Dalton, Hannafin, & Hooper, 1989; Fletcher, 1996; cf. Dobrovolny, 2006, p. 55). In self-paced learning, the learner has the advantage of determining the learning sequence, pace of learning and possibly the media. "For example, in a self-paced computer-based course, two students might begin the course on the same day but one may finish days ahead of the other" (Soyemi, Ogunyinka, & Soyemi, 2011, p. 704).

It is reported that in self-paced learning, learners do not depend on the structure and pace that the teacher/facilitator or rather the computer programme establishes. Learners actively participate in the learning experience, assuming greater responsibility for their own learning. This aspect of multimedia learning supports a student-centered strategy in which low-ability learners can move forward at their own pace while high-ability learners can take a non-linear path and not follow the chronological pattern of lessons or a slower pace, thereby using the time spent in learning is efficiently used (Soyemi, Ogunyinka, & Soyemi, 2011).

Yeh and Lehman (2001) conducted an experimental study on the effects of learner control, English learning strategies, and the use of advanced organizers (According to Joyce & Weil (1972, p. 249), an advanced organiser "(...) is a strategy used by the teacher to present the material. It can be a simple outline, or a brief speech prepared by the teacher prior to the main lesson, calling upon prior knowledge, ultimately readying learners' for better understanding of new information"). 150 subjects learning English as a foreign language in Taiwan participated in the investigation. The 150 participants were divided into three groups. In the first group, students used an advanced organizer and learned information through an imposed linear progression. Students in the second group also used the advanced organizer but were permitted to choose their own path through a digitally-based learning environment. For example, when confused about a topic, they could follow links to additional information in the form of short videos, stop the videos at any point, click on a problematic vocabulary word, and receive help from a multimedia glossary. These participants had the opportunity of accessing the same content but multiple times. The third group of participants formed the control group; they did not use an advanced organizer. Results revealed that participants who were allowed to choose their own path and pace comprehended the content better than those who followed an imposed linear progression or the students in the control group.

2.9 Self-instruction in the Sri Lankan Context

Delivering an English language course using a computer programme designed for individualized learning can be an alternative solution for the problems encountered in traditional face-to-face teaching methods. This also holds for the situation in Sri Lanka (Eynon, 2008; cf. Thowfeek & Jaafar, 2013, p. 43-44). Here, foreign language classrooms are typically oversized (Karunaratne, 2009, p.71), and heterogeneous in terms of proficiency levels of the students (Perera, 2010). A class is considered large when there are over 50

students enrolled (Hayes, 1997), and a heterogeneous class is made up of students with many levels of linguistic ability and skills, and "a mix of successful and unsuccessful learners" (Skehan, 1998, p. 215-216; cf. Perera, 2010, p. 17).

A large heterogeneous class has been considered a great challenge for the development of a sound pedagogy, and it is indeed an issue that needs serious attention in the Sri Lankan context. Prodromau, (1994, p. 12) states that [...]

One of the most common problems of the large class is cohesion. The sheer disparity of the students' language levels and interests can prove a strongly divisive influence. The larger the class, or more mixed the language competencies and skills of the students' in it, the more easily the lessons will seem to disintegrate. Because of the different levels in the mixed ability group, it is difficult to keep the attention of all the students at the same time. What is interesting and challenging for one student may be boring or too easy for another. So while the teachers' attention is fixed on one student on one side of the class, the others lose concentration and switch off and get increasingly noisy. This situation can be true of many heterogeneous classes. (cf. Perera, 2010, p. 17)

One way to handle a situation such as this is to implement a language programme "in which learners study languages on their own, primarily with the aid of 'teach-yourself materials'" (Benson, 2001, p. 131; cf. Bidlake, 2009, p. 93). Dickinson (1987) refers to this concept as self-instruction. Self-instructional contexts, according to Dickinson, are "situations in which learners are working without the direct control of the teachers" (1987, p. 5; cf. Finch, 2002, p. 6). He refers to it as a mode of learning in which a learner, either with other learners or alone, is learning the language without the direct control of a teacher. Such learning can be for a short period of time within a lesson, whole lessons or for several consecutive lessons, or even the whole learning task. He also makes a distinction between learner-centered and materials-centered self-instruction. Learner-centered self-instruction is placing the responsibility of learning with the learner, whereas material-centered self-instruction is incorporating the teacher's role into the materials.

With the advancement of multimedia technologies, such as interactive video and voice recognition software, self-instructed CALL is becoming a popular alternative to more traditional self-instruction materials. (Bidlake, 2009, p. 94)

Hence, in this dissertation, a more pragmatic of view of the learner is taken and the following working definition of individual self-paced learning is proposed by the researcher. This definition was formulated on the basis of Dickinson's (1987) rationale for self-instruction, which in turn is based on a reading of literature on learner strategies and affective variables and their impact on linguistic achievement:

Individual self-paced language learning is an act of self-instructed material-centered learning, designed using validated pedagogical principles, in which learners are given a degree of control--marginally more than a normal teacher-centered classroom--whereby learners make informed decisions concerning the path and pace of learning.

Anderson (2003; cf. Anderson, Annand, & Wark, 2005) states that for learning experiences to be meaningful, it needs to be supported by a great amount of interactivity in at least one of the following three areas: learner-teacher, learner-learner, or learner-content. He adds that the quality of students' educational experience will not be affected if interactions in the other two areas are reduced or eliminated. This indicates that learner content interaction can also bring about positive outcomes in learning.

Hence, based on the working definition mentioned above, a material-centered selfinstructional multimedia computer programme based on a dynamic usage-based approach in which the learners meaningfully engage with the learning content at their own pace was developed for the experimental study described in this dissertation.

Generally, language learners, especially adult learners, feel inhibited and this can be an obstacle to their educational progress. It is assumed that a material-centered multimedia computer programme enables learners to master a language in a private learning environment, advancing at their own pace by accessing the material and practice a lesson repeatedly.

2.10 Reviews and Studies on Existing Computer Assisted Language Learning Programmes

Although computer-assisted language learning materials exist, they are either not consistent with the current model of CLT and cannot be considered completely self-instructional (Godwin-Jones, 2007) or do not provide holistic language learning in a systematic pedagogical approach supporting students at all stages of their learning process. The reviews and studies reported below serves as evidence of the preceding argument.

Krashen (2013, p. 2) has recently reviewed the commercial software that claims to promote a completely independent learning experience, "Rosetta Stone", and concludes:

Rosetta Stone does indeed present comprehensible input, but in the samples I have seen, the input is not very interesting, and a long way from compelling, hypothesized to be the most effective kind of input (Lao & Krashen, 2008). The approach is straightforward: the student hears a word or phrase and is asked to choose a picture that matches that word or phrase. Rosetta Stone then tells the user if the answer is right. As Nielson (2011) points out, "The authors (of Rosetta Stone) claim that 'by combining genuine immersion teaching methods with interactive multimedia technology, Rosetta Stone replicates the environment in which learners naturally acquire new language' (pp. 2-3). This claim is patently false. The Rosetta Stone interface simply presents learners with matching activities in which they guess or use a process of elimination to determine which words or phrases go with particular pictures. This pales in comparison with an actual "immersion environment" (p. 6).

Lafford (2004, p. 32), who reviews another computer software package, "Tell Me More" summarizes:

Tell Me More Spanish is a technologically sophisticated multimedia programme with high-end graphics and excellent speech recognition software that provides the learner multiple opportunities to practice speaking, listening, reading, and writing skills and to gain knowledge about some isolated cultural facts. It is suited to the needs of individual learners, who are given a great deal of control over various elements of the programme so they can forge their own learning path. However, the programme's

focus on pronunciation, structurally-based curriculum, mechanical exercises, decontextualized interaction, and use of culture capsules (mostly isolated from vocabulary and grammar exercises and listening, speaking and writing activities) causes this programme to be out of step with modern communicatively-based views of task-based foreign language pedagogy-views which are grounded in cultural authenticity and the notion of language as social practice.

(cf. Bidlake, 2009, p. 98)

Torlakovic and Deugo (2004) examined one aspect of language teaching--the extent to which computer based grammar instruction contributed to an increase in learners' performance and confidence in placing adverbs in an English sentence. Two groups of students participated in the study: an experimental and a control group. The control group received teacher-fronted instructions while the experimental group was exposed to a CALL software package. The study was conducted over a two-week period and the learners were exposed to six hours of grammar instruction. Both groups of learners had to complete identical tasks. In order to evaluate their performance, a pre-test, a post-test, and a delayed post-test were administered. Results revealed that the experimental group showed significant improvement on grammatical performance and confidence after being exposed to CALL grammar instruction. The researchers concluded that frequency of exposure, control over learning, availability of immediate feedback, and practice accounted for the significant difference between the control and the experimental groups.

Lim and Zhong Shen (2006) studied the impact of Computer Assisted Language Learning (CALL) on Korean TAFE (Technical and Further Education) college students in EFL reading classroom. 74 first year English major students were divided equally into two groups (an experimental and a control group) participated in the study. The study, which was conducted over one semester, assessed the students' perception of the learning environment and their reading performance. Both groups were taught by the same teacher and covered the same topics in their weekly two-hour reading lessons. The only difference was that the experimental group learnt through CALL while the control group learnt in the traditional classroom setting. Both groups of students were given a pre-reading comprehension test prior to the study and a post reading comprehension test at the end of the study. Results reveal that students' performances in the pre-test and the post-test were not significantly different between the two groups. However, the students in the CALL-based English class were more

positive in their perceptions of their learning environment than the students in the traditional English class. The researchers concluded that the computer technology had a positive impact on students' perceptions of their learning environment, especially in relation to learning materials and tasks, and with regard to interaction and collaboration with the tutor and other students.

Chapter 3 Study 1

The study described in this dissertation partly replicates the research conducted by Hong (2013). The current project closely follows the set-up of Hong, but at the same time is only a partial replication of the earlier study, as it differs along a number of essential dimensions: the context (Sri Lanka as opposed to Vietnam), the experimental instructional materials (the movie that was used as a primary resource is different from the one that was used by Hong), the subjects, and the experimenters are all different. This chapter describes the first of two related studies, both of which were based on a DUB approach to second language teaching. Study 1 examines the materials, their validity, and general method underlying this project; Study 2 examines the effects of a DUB approach as embedded in a self-instructional material-centered multimedia computer programme.

3.1 Aims and Outline

The piloting of the research instruments is an important component of any research project (Cohen, Manion, & Morrison, 2000, p. 260). It becomes even more crucial when the aim of the study is to specifically investigate instructional approaches that are novel to the participants.

At the Faculty of Management Studies and Commerce at the University of Sri Jayewardenepura in Sri Lanka, the approach that is currently being adopted is the communicative approach (see section 2.1.4). However, due to the nature of the second language classes within the faculty (which are oversized and heterogeneous), the teachers face practical difficulties in implementing the principles of CLT. As a result, ESL teaching at the Faculty is teacher-fronted and text-book oriented with explicit focus on grammar, writing, and reading skills. The experimental instructions, on the other hand, are based on mere exposure to comprehensible input without any practice or production. Therefore, the aims of Study 1 were (1) to test the materials and procedures of the proposed main study that will deal with a self-instructional material-centered multimedia computer programme and (2) to evaluate the compatibility of a dynamic usage-based approach to second language
teaching with the teaching conditions in Sri Lanka before transforming the course into a selfinstructional material-centered multimedia computer programme.

To achieve these aims, the research context is first described. Then, the research questions are given for this preliminary study. Next, information on the design, the research site, the participants, and the instructional materials used in the current experiment are outlined. Following that, the processes by which the instruments especially designed for this study were created and validated and the processes by which data were generated are explained.

3.2 Research Context

The research context for both Study 1 and Study 2 is the Faculty of Management Studies and Commerce, University of Sri Jayewardenepura for the main reason that the researcher has been associated with the institution professionally.

The University of Sri Jayewardenepura (USJP) was established in 1959 and is one of the leading universities in the country. The University consists of five faculties: Applied Sciences, Humanities and Social Sciences, Management Studies and Commerce, Medical Sciences, and Graduate Studies. The Faculty of Management Studies and Commerce (FMSC), the Faculty in which this investigation is conducted, has a student population of nearly 6,000, and it is now regarded as the largest Faculty in the country, regardless of the discipline. FMSC conducts nearly 12 undergraduate degree programmes. Students who get the best results on the G. C. E.¹ (Advanced Level) accounting and commerce stream at their secondary school (The commerce and accounting students have studied Economics, Accounting, and Business Studies as their subject combination at school) seek admission to the Faculty. The G. C. E (Advanced Level) Examination is conducted by the Department of Examination, Ministry of Education, in Sri Lanka. Students typically take it at the end of the optional final two years of secondary school (in the 13th year of formal education). The examination is conducted through the Sinhala, Tamil, or English media. The examination diversifies over 4 major fields of study: Physical Science stream, Biological science stream, Commerce and Accounting stream, and Arts stream. This examination is also the entrance examination to state universities in Sri Lanka. It is an extremely competitive national

¹ General Certificate of Education

examination, for only about 50% of the candidates qualified for admission to the universities in Sri Lanka get an opportunity to enter the universities. According to the University Grants Commission Sri Lanka, in the academic year 2012/2013 only 28,908 (48.9%) of the total 59,030 qualified candidates were admitted to the 14 national universities throughout Sri Lanka. Admission to all courses in the universities throughout Sri Lanka generally takes place on the basis of 3 criteria: 40% of the available places are filled on the basis of the zscores obtained by students ranked on an all-island (the whole of Sri Lanka) merit basis; 55% of the available places in each course of study are allocated to the 25 districts in the country in proportion to the total population, and 5% of the available places in each course of study are allocated to the 16 educationally disadvantaged districts. Hence, in any course of study, there are students from both educationally advantaged and disadvantaged districts--from different socio-cultural, socio-economic, and socio-linguistic backgrounds, with different levels of English proficiency and different performance levels at the G.C.E. (Advanced Level) examination.

This means that the current and prior experiences with English as a second language (ESL) outside the university context of the undergraduates, in general, are extremely diverse. Some of the students come from English-speaking homes and can easily converse in English while others have no experience using English other than what they were taught at school. These groups are further differentiated by their access to English teaching in primary schools. Some of these students have been exposed to English from elementary education onwards while others have not had any exposure prior to entering university (De Lanerolle, 1991; Perera, 2010; Perera, 2001; Walatara, 1974) because some of the schools in the educationally disadvantaged districts in Sri Lanka suffer from (ESL) teacher shortages.

Hence, in such a setting, the reality that the Faculty contends with is the widely differing levels of proficiency of the students who enter the Faculty set against the inadequate number of qualified English language teachers available (see Chapter 1) to provide English language instructions. The Faculty deals with the shortage by allocating the maximum number of students to a class--thirty, forty, or even fifty students, depending on the seating capacity of the classroom.

3.3 Research Questions

The questions this initial study attempts to answer are as follows:

- 1. Is the English language proficiency of the participants in the current study similar to that of the participants in Hong (2013)?
- 2. Are the instruments, methods and procedures established and validated by the earlier study by Hong (2013) appropriate for the current study?
- 3. Is a DUB approach to second language teaching English to the students of the Faculty of Management Studies and Commerce, University of Sri Jayewardenepura more effective than their regular English language programme currently conducted by the Faculty?
- 4. Are the DUB-inspired course materials in the current study suitable to be transformed into a material-centered self-instructional multimedia computer programme within the Faculty of Management Studies and Commerce, University of Sri Jayewardenepura?

3.4 Research Design

To answer these research questions, a quasi-experimental longitudinal study was conducted in intact classrooms, where the random selection or allocation of individual cases to different conditions was not possible. In this investigation, neither the researcher nor the participants could choose the group to which the subjects were assigned, for the grouping of students is generally done by the Faculty based on the Z score obtained by the participants on the G. C. E. (Advanced Level) examination. The only thing the researcher could do was randomly choose the experimental and control groups from a total number of 26 groups.

To meet the aim of the study, two instructional conditions were evaluated: An experimental group (DUBp) was taught using PowerPoint-based multi-media instructions founded on the principles of a DUB approach to second language teaching and delivered by a teacher in a traditional classroom setting, and a control group (tCLT) was taught using the regular English as a second language (ESL) programme (see below for details) as taught at

their faculty (a CLT-based approach). These two groups of participants received the same amount of course time; both groups met two days a week for two hours each day during the course of the semester. Both groups were exposed to a traditional teacher-fronted class context, where the teacher was in control of the mode of delivery. However, the DUBp students received instructions based on a dynamic usage-based approach to teaching, while the tCLT group received instruction based on the traditional approach to teaching English as a second language. The groups were also bound by the same course and examination criteria; the only exception was the intervention under investigation.

The experiment was conducted as part of a university credit course, which meant that the students and teacher had to abide by the examination regulations of the Faculty. The overall grade that the students obtain for each course unit is based on the marks obtained in an in-class assignment, which itself consists of two components: a group performance/oral presentation on a suggested topic and a writing assignment in the form of a formal report on the topic (the topic of the oral presentation), and an end-semester examination, which is a written examination based on the content of the English course. Both groups of participants therefore had to complete an in-class assignment and take the same end-of-semester examination. As the end-of-semester examination that is generally designed to assess the reading, writing, vocabulary, and grammar skills of the students is vital to the students, the students are generally given a list of topics that would be tested one month before the end-ofsemester examination The tCLT teachers' focus during the last month of the course was on preparing the students for the end-of-semester examination.

The DUBp teachers, however, continued to teach the experimental instructional material until the end of the semester. Since the DUBp programme was different from the regular English language programme and was not exam-oriented, the DUBp students were given a crash course of two weeks (twelve hours) during the study leave period to prepare them for the final examination after the effect study was conducted and the post-intervention general English proficiency test was administered, so as not to disadvantage them compared to the traditionally taught group.

3.4.1 DUBp Group

The DUBp students were given a course designed on the basis of the same DUB principles to second language teaching as those applied in Hong (2013). As in Hong's study, a movie was

selected instead of any other video material as a primary resource for the preparation of instructional materials. A movie was used on the assumption that it not only integrates all four language skills into one learning experience but also enhances language learning. Movies provide learners with exposure to various discourse contexts and actual use of idiomatic expressions (Katchen, 2003). In addition, they help learners develop their sociolinguistic competence (ability to adjust one's speech to fit the situation) by providing natural language in meaningful context exchanges (Allan, 1985). They also offer scope for frequency of input and many opportunities for discussing the semantic nature of the language by way of scaffolding, promoting cultural awareness, facilitating learning by providing the students and the teachers with the teaching and learning tools that use both sub-titles and visuals, providing a model of pronunciation, rhythm and intonation of native speech, and creating interest and curiosity amongst learners (Hong, 2013).

The movie used was entitled "The Pursuit of Happyness" (2006, 1:57). The movie is about the determination of a father who wishes to give his son a good life, regardless of the seemingly insurmountable barriers they come up against in life. This movie was chosen as the primary resource because it dealt with quite a few business situations that would be of interest to business students and because of its interesting and inspirational storyline.

The movie was divided into segments of about two to three minutes and consisted of an introduction (the movie trailer) and thirty-three scenes. A few scenes that were considered culturally inappropriate were left out (for example, the scene in which the wife of the main character smokes was omitted because smoking is banned in public places in Sri Lanka and therefore was considered not suitable for teaching purposes). However, the researcher made sure that the scenes that were used for the experiment were in some way related to each other rather than being offered in isolation. The design of the programme was consistent for each scene (see Appendix A for a sample lesson) and was in compliance with a dynamic usagebased perspective. Each lesson had a similar goal, namely to expose the learners at least six (6) times to the utterances in the scene in order to ensure that the students understood the meaning of every utterance in the scene and would be able to remember most of the expressions. There were neither descriptive nor prescriptive grammar lessons as part of this intervention. However, multi-word constructions were highlighted to implicitly focus on form-meaning mappings.

Each scene was displayed on a screen through a multimedia projector and involved the following steps:

Step 1:

Chunks, expressions, and individual lexical items that were considered vital for the comprehension of the scenes and would become the focus in later viewings were presented for the first time to the learners.

Step 2:

Learners watched the movie scene for the first time (first exposure) without any explanations or subtitles. The object was to make sure that the learners focused on the entire scene and got the gist of what was happening.

Step 3:

Learners were asked one or two general comprehension questions such as, "Is this movie based on fiction or is it a true story? What did Gardner invest in?" to find out if students understand most of what had happened in the scene.

Step 4:

Learners watched the movie segment again (second exposure). They were asked to focus their attention on what the characters said while viewing the movie segment.

Step 5:

Learners were shown the script of the movie scene (third exposure) and were asked to read aloud after the teacher (fourth exposure) so that they read and heard the utterance correctly. The idea was that seeing the text in writing and hearing the teacher, who would articulate more slowly and distinctly than the characters in the movie, would help the learners segment the utterances and notice aspects of the language that might not be very audible in naturally occurring speech. In addition, detailed explanations were given in order to ensure that learners understood every utterance in the scene. These explanations could be in the form of illustrations, where possible, or in the L1 when needed. Because learners had been given a copy of the movie script in the form of a booklet, they could take notes when necessary.

Step 6:

Learners watched the scene for the third time (fifth exposure), now with understanding of what each individual character was saying. The purpose of this step was to integrate the segmented knowledge obtained in step 5 and comprehend the scene as a whole.

Step 7:

Learners were shown the script of the movie scene again (sixth exposure) and individual students were asked to read a line or two aloud (seventh exposure). The purpose of this step was to once again expose the learners to the text and give them the opportunity to practice pronunciation and intonation. No corrections of mispronunciations were made and only affective compliments were given.

Step 8:

To reactivate the language used in the scenes discussed in the lesson and for a change of pace, students were given an activity at the end of each lesson. The activities ranged from writing about the movie scene (based either on what the teacher suggested or on a theme of their choice) to acting out a scene in pairs. The teacher did not force the learners to produce freely until they were ready to do so. The teachers did not provide immediate feedback to learners either. The purpose of this set-up was to ensure that learners who suffer from anxiety were not negatively impacted by immediate feedback.

3.4.2 tCLT Group

The pedagogical approach of the first-year English programmes (both Semesters 1 and 2) at the Faculty of Management Studies at the University of Sri Jayewardenepura are more typical of mainstream second language programmes that have been in place in the Sri Lankan universities since the late 1980s: the approach used embodies the communicative language teaching approach (CLT). CLT postulates that the primary function of language use is communication, and its primary goal is for learners to develop communicative competence (Hymes, 1971), by making use of real-life situations that necessitate communication (see Chapter 2 for a more detailed description of CLT).

The tCLT group was presented with the standard course conducted by the Faculty for its first-year students and was given the course materials that had been specially designed for the undergraduates of the Faculty, Business Communication Book I.

The course encourages students to work both individually and in groups, and the teachers are advised to use cooperative learning as an instructional strategy. Cooperative learning is the instructional use of small groups so that students work together to make the best use of their own and each other's learning. However, class teachers have often complained that it is not possible to get the students to work in groups due to space constraints in the classroom as a result of the large number of students. Instead, the teacher usually gives instructions, explanation of vital points, and general feedback for students (it is not always possible to give individual feedback due to the class size) in English, Sinhala, and sometimes Tamil languages².

Designed on the basis of a communicative language teaching approach, the Business Communication I course is an integrated skills course which attempts to develop the learners' skills in reading, writing, speaking, listening, grammar, and vocabulary (see Appendix B for a contents page of Business Communication I). The students are expected, at the end of the course, to be able to construct both simple and complex sentences accurately; articulate their views in brief discussions and telephone conversations; obtain relevant information from auditory texts; read and extract information in texts for a variety of purposes, and write short texts and business letters for a variety of purposes. The listening comprehension exercises are typically read out by the teacher herself. This is because, in general, the senior teachers are reluctant to use technological devices and because some of the classrooms in the Faculty are not equipped with multimedia projectors. Hence, to be fair to all students, teacher voice listening is the strategy adopted in the Faculty. The speaking practice takes the form of roleplay, simulations, and discussions.

² Sinhala and Tamil are the official and national languages of Sri Lanka. Sinhala is the native language of the Sinhalese people, who constitute approximately 70 percent of Sri Lanka's population. Tamil is Sri Lanka's other official language, spoken by about five million people in Sri Lanka, which is about 15 percent of the population.

3.5 Method

3. 5.1 Learner Participants

Two groups of participants totalling 88 first-year students of the Faculty of Management Studies and Commerce whose average age was twenty years (range from 20 to 22 years) participated in Study 1 in the first semester of the academic year 2011/2012 (the average age of a Sri Lankan undergraduate at the time of enrolment is twenty years. They are generally enrolled only two years after they take the university qualifying examination. This is because the authorities take two years to select and assign students to the 14 national universities). The first language of the students was either Sinhala or Tamil depending on their ethnicities. These two groups of participants were randomly assigned to two conditions: DUBp and tCLT. The DUBp group consisted of 48 participants, and the tCLT group consisted of 40 participants.

The participants in these groups showed varied levels of English language ability. This is because the Business Communication unit of the Faculty is forced to use a heterogeneous method to group its students: in the Faculty of Managements Studies and Commerce students are grouped not based on their English language proficiency but on the basis of their subject stream: Management, Commerce, Public Administration, Estate Management and Evaluation, and Information Technology.

3.5.2 Teacher Participants

The experiment was conducted by two teachers: the researcher and another teacher (with the former hereafter referred to as teacher A). Both teachers had studied English Language and Literature as a subject for their Bachelor's degree, possessed many years of experience in teaching English as a second language in Sri Lanka, and were familiar with the use of multimedia. Teacher A took over in the sixth week of the experiment.

Originally, the researcher intended to conduct the entire experiment herself; however, she could not do so as planned. This was because all academic activities in the university came to a complete standstill due to a trade union action initiated by the academics two weeks after the commencement of the semester, and sessions recommenced only after a break of twenty weeks. Therefore, the assistance of another teacher had to be sought to

continue the experiment and to take over both the DUBp and tCLT groups when it was time for the researcher to return to Groningen.

Before handing over the two groups to Teacher A, the researcher met her in person and explained the theoretical background of the research (dynamic systems theory, a dynamic usage-based approach, and scaffolding). The first two PowerPoint (PPT) lessons of the experimental programme were also shown to her in order to demonstrate how to handle the PPT lessons. The key aspects of a dynamic usage-based approach such as scaffolding, frequency of input, and focus on form-meaning pairs (constructions) were pointed out, and the teacher was specifically told that her goal should be to expose the learners at least six times to the utterances in the scene. In essence, the briefing session was like a training workshop. The only difference was that it was carried out in an informal setting where the teacher could ask questions and make suggestions. This was intended to encourage the teacher to adapt the PPT lessons in the way she saw fit for her own lectures, as long as it was within the boundaries of the theoretical framework. She was also instructed to explain the meaning of difficult constructions using primarily the target language, and to use languages other than English (such as Sinhala or Tamil) only if absolutely necessary.

To better prepare the teacher, teaching materials were provided to her long before she took over the groups. Teaching materials included PPT lessons of the movie *The Pursuit of Happyness* (34 scenes in total), the movie script in the form of a booklet, and a DVD copy of the movie.

3.5.3 Measures

The measures for Study 1 were the same as in Hong (2013), who had extensively pre-tested and validated the instruments: a general English proficiency and writing test (GEP) and two questionnaires: willingness to communicate (WTC) in English and self-confidence (SC) in Using English. Even though Hong reported that the measures were both reliable and valid (See Hong, 2013 for details), they were evaluated again as part of the current study, especially to see if they were appropriate for the group of students in the current study.

Both groups--DUBp and tCLT--were tested before the instructional intervention began (pre-test), and when the period of special instruction ended (post-test). Table 3.1 gives an overview of the two instructional groups, the research instruments, and the respective number of participants.

Condition	Instructional	Measures	No. of	No. of
	programme		participants	participants
_			(pre-test)	(post-test)*
DUBp	A dynamic usage-	GEP and writing	40	40
	based approach	WTC	4.4	27
	in PowerPoint	WIC	44	21
	based multimedia	SC	44	27
	format (teacher			
	directed)			
tCLT	(Current)	GEP and writing	33	33
	Communicative	WTO	44	22
	language	WIC	41	22
	teaching approach	SC	41	22
	in a traditional			
	classroom setting			

Table 3.1: The two conditions of the study, the measures, and the number of participants

* The number of participants that completed the WTC and SC pre-intervention questionnaires is different from the number that completed the post-intervention WTC and SC questionnaires because the questionnaires were administered on the last day of (English) lectures for the semester (see table 3.4 for schedule) and only the number indicated (in the table) attended lectures on that day.

3.5.3.1 The general English proficiency test and writing

Hong (2013) explains the GEP paper (Appendix C) to be based on the following sources: De Thi Tot Nghiep Cap III Mon Tieng Anh Nam 2008 (the 2008 High School Graduation English Test), KET (the University of Cambridge ESOL Examinations Key English Test), the 2007 Dutch Examen VMBO-BB Test, and the Listen A Minute website (p. 46).

Hong (2013, p. 47) furthermore cites the following reasons for basing the GEP test on the sources mentioned above: the High School Graduation English Test was used on the assumption that the participants would be familiar with the instructions and to avoid possible test effects. The KET, which is a basic level English language test administered by the University of Cambridge, was used because it is generally meant for learners of English with level A2 in proficiency which the participants of Hong's study were expected to attain at the end of the intervention. A Dutch Examen VMBO-BB test, an English reading test that Dutch vocational training high school students take in order to graduate from high school was used because it is generally aimed at A2-level proficiency and had been considered to be appropriate for the participants in the study. The Listen A Minute.com website, which offers free-of-charge one-minute audio files read by a native speaker of English with a normal speed, was used because it consisted of recordings of general topics. While some of these justifications may also well apply to the current group of Sri Lankan learners, some are specific for the Vietnamese context, making it even more pivotal to test the materials in the Sri Lankan setting.

Ellis (2005, p. 42) in his article on *Principles of Instructed Learning*, which is a collection of research findings from a range of second language acquisition studies points out "the need to assess language learning in terms of free and controlled production." Hence, the GEP test that was designed for this investigation contained both aspects of assessment (i.e. free and controlled production). More particularly, the GEP test consisted of nine parts (see Table 3.2), encompassing components of vocabulary, grammar, pronunciation, reading, cloze, dialogue matching, and listening. Parts 2-4 were adapted from the 2008 Vietnamese National High School Graduation English Test. Parts 1, 7, and 8 were duplicated from the KET (cf. UCLES, 2004). Part 6 stemmed from the 2007 Dutch Examen VMBO-BB test. Part 9 came from the Listen A Minute website. There were thus 49 test items in total. The estimated time for the GEP test was 40 minutes. The components of the GEP test are presented in Table 3.2 below.

Table 3.2: Components of the general English proficiency test

Part	Test	Number	Instruction	Example
	Description	of Items		
1.	Vocabulary	5	Circle the most suitable	They wanted to <u>stand/put/stay</u>
2.	Grammar	5	Circle the best underlined word	Nothing <u>changes / was changing /</u>
			for each sentence.	has changed / changed in this town
				since I first visited it.
3.	Vocabulary	5	Read the description. Write the	People come to me when they are
			name for each job.	sick.
				D
4.	Phonetics	5	Circle the word with the	A. <u>h</u> igh B. <u>h</u> our C. <u>h</u> ouse
			underlined part pronounced	D. <u>h</u> ome
			DIFFERENTLY from that of the	
			other words in each set.	
5.	Grammar	10	There is one WRONG word in	My younger brother has worked in a
			each sentence. Circle the word.	bank since a long time.
			Then correct it.	
6.	Reading	1	Read the passage "Trade	What did Swarnamali say about her
			Secrets." Circle the correct	mother's wedding ring?
			answer to Question 26.	a. Her mother lost her own
				wedding ring.
				b. As a child, she exchanged
				the ring for a toy.
				c. Someone stole the ring
				from her mother's car.
7.	Cloze	10	Read this postcard. Write ONE	Soon, I'm to have a swim.
			word for each space.	
8.	Conversation	5	What does Kim say to Anita?	A. Bye, see you later.
	Matching		Complete the conversation.	B. That's exactly how I used to
			Write the word (A, B, C, D, E, or	feel.
			F) in each space.	
9.	Listening	22	Read the passage carefully for	Love makes the world, not
			two minutes. Listen and fill in	money.
			the spaces with words you	
			hear. There is one word for	
			each space. You will listen 3	
			times.	
10.	Writing		Choose ONE of the following	1. The most unforgettable day in
			topics. Write about that topic as	my life
			much as possible.	2. My goals and dreams for the
-				future

Part 9 (listening) of the test was repeated three times when administered. The strategy of getting the students to listen to the text three times was used for two main reasons. One was to conform to the regular practice adopted at the Faculty in teaching listening comprehension and the second was because "(...) hearing and processing the text a second time would allow the test taker to compensate to hear the missing information again" (Buck, 2001, pp. 170-172). The listening comprehension test was conducted in a traditional classroom setting, to minimize external and environmental interference that could hinder listening comprehension and consequently cause psychological stress to the participants (Chang & Read, 2006).

The GEP test (Part 1 to Part 9) consisted of sixty-eight variables. Part 5 of the test consisted of 5 test items. Each test item was coded into two variables--one point each was given for identifying the mistake and for writing the correct answer). The listening items in Part 9 were coded in a way that each blank was counted as one item. For example, the first three blanks in the listening test were coded as items 43, 44, 45 and the next blanks were coded as items 46, 47, 48, and so forth.

The GEP test (Parts 1 to 9) was an objective test, and the sole scorer was the researcher. In giving scores, each correct answer was given a 1 (one) and each wrong answer was given a 0 (zero). The maximum possible score of the GEP test was 68.

Writing was included as Part 10 of the GEP test paper, and was administered along with the GEP test under examination conditions. The aim was to measure how well a learner spontaneously wrote in the target language. The topics that were given for the writing task were *My best friend, The most unforgettable day in my life, My goals and dreams for the future, My hometown.* The participants were free to choose one of the topics. These topics were assumed to impose little or no constraints on the participants and the open and free nature of the tasks allowed students with different levels of English proficiency to attempt the task, as they did not demand use of specific grammatical or particular lexical items. Participants were encouraged to write as much as possible. No word limit was imposed as text length also gives an indication of proficiency. However, the participants had to complete the general English proficiency test and the writing task within the stipulated time, which was 70 minutes for the whole test.

The writing texts (what the participants had written) were rated and analyzed separately as described below. This was done on the assumption that the writing score (the mean score of the four raters) would not have any effect on the total score of the general

English proficiency test that consisted of 68 variables and that all significant differences for writing would be identified.

The 146 texts written by the 73 participants at the pre-test and the post-test, computer typed exactly as written by the participants, were rated holistically by four independent raters. The texts were rated on a scale ranging from 0 (for papers in which no writing was attempted) to 7 (for papers considered the best among the samples). That is, the raters were requested to give an impressionistic overall score, based on the respective strengths of the written text rather than its shortcomings (Verspoor, Schmid, & Xu, 2012) (see Appendix D). The four raters rated the texts independently. The texts were arranged in chronological order, alternating pre and post writings texts. The experimental group's writing products were rated first followed by those of the control group. The raters (four females), who were unaware of the experimental set up, were experienced second language writing teachers from the Faculty of Management Studies and Commerce, University of Sri Jayewardenepura. The only information that was given to them was that the texts were produced by first-year undergraduates who were participants in the researcher's PhD study.

3.5.3.2 The WTC-SC questionnaire

To investigate if the teaching approaches would have an impact on the learners' willingness to communicate in English (WTC) and their self-confidence (SC) in using English, two fourpoint Likert scale questionnaires on WTC and SC were administered. These questionnaires were taken from Hong (2013), who adapted them from Peng (2007), who in turn adapted them from MacIntyre, Baker, Clément, and Conrod (2001) (see Appendix E). However, a small adjustment was made. The neutral option was removed and an even-point scale (a 'forced choice' method) was thus created instead (Allen & Seaman, 2007). The rationale for using this method was to get the true opinion of the respondents. The neutral option is considered an easy option to take when a respondent is not sure, and it is therefore questionable whether it is her/his honest opinion. It has been shown that when comparing between a 4-point and a 5-point Likert scale, where the former has the neutral option unavailable, the overall difference in the response is negligible (Armstrong, 1987).

The questionnaires consisted of 34 situations each. For each situation, participants were asked to indicate to what degree they were willing to communicate in English and how confident they would feel about the situation. There were 23 in-class and 12 out-of-class

situations. An example of an in-class situation was *Stand up and briefly introduce yourself to everyone, when asked*. An example of an out-of-class situation was *Give directions to a foreigner when asked*. The instructions for completing the questionnaire were given by the researcher in Sinhala and Tamil; however, the situations inherent in the questionnaire were in English and not translated (but the class teacher was at hand to answer any questions students had). Respondents were asked to indicate their response by putting a circle around a level that ranged from 4, with 1 as the least willing to communicate in English/least self-confident in using English to communicate and 4 as the most willing to communicate in English/most self-confident in using English to communicate.

Before the administration of the questionnaire, the researcher briefly explained the questionnaire, and how it should be answered. The subjects were given the assurance that the data would only be used for the purpose of the research, the ultimate objective of which was to further develop and improve the English Courses conducted by the Faculty. The questionnaires were then administered and after completion collected. The subjects took approximately 25 to 30 minutes to complete/fill out the two questionnaires.

3.5.4 Procedures

The current study commenced on May 14, 2012, the first day of the first semester of the academic year $2011/2012^3$ and data were collected in two stages: in the first week of sessions, before the commencement of the intervention and on the tenth week of sessions at the end of the intervention. The time period of Study 1 is given in Table 3.3 below.

³ In Sri Lanka, rather uniquely compared to practices in other countries, there are no fixed start dates for semesters. This is because semesters, sometimes, get extended due to unforeseen circumstances (e.g. the semester in which Study 1 was conducted got extended by twenty weeks). The start date of an academic year usually varies from year to year, and the start date of a semester is not fixed to a particular time frame either.

Condition	Academic	Semester	Intervention		Number of	No. of	Total
	year		_	_	instructional	hours	number
			From	То	sessions per	per	of
					week	session	sessions
							held
DUBp	2011/2012	1 st	March	December	2	4	20
		semester	14,	5, 2012			
			2012				
tCLT	2011/2012	1 st	March	December	2	4	20
		semester	14,	5, 2012			
			2012				

Table 3.3: The time-period of Study 1

*After the 2nd week of lectures, due to a trade union action initiated by the academics, all academic activities in the university came to a standstill. Lectures recommenced after a break of 20 weeks on October 15, 2012 and continued until December 5, 2012.

Prior to the implementation of the project, permission to carry out this study was obtained in writing from the Dean of the Faculty of Management Studies and Commerce, University of Sri Jayewardenepura. The learners were informed of the purpose of the research and were requested to extend their cooperation by filling in the WTC and SC questionnaires and by taking the GEP pre-test. The researcher assured the participants that the information/answers they provided would be used for research purposes only and would be kept strictly confidential. They were also told that they could stop participating in the research project at any time and that their decision to withdraw would not harm them or their course grades in any way. After obtaining their informed consent, the data collection instruments were administered. However, students were not told ahead of time that identical instruments would be re-administered at the end of the intervention.

The administration of the research instruments was conducted in a systematic manner. Before the English proficiency test was administered, the instructions for answering the test were explained to the subjects. The subjects were requested to make a note of any instructions that were not clear so that they would remember to inform the researcher of any difficulty at the time of the discussion (see below). They were then given the paper with instructions. The listening test was first administered. The listening part in the GEP Test was played using a laptop computer and a loudspeaker. This was followed by the written part of the GEP test.

Each time after a testing session, the researcher or teacher had an informal discussion with the subjects in English, Sinhala, and Tamil to ask if the subjects had come across any

significant difficulty either when answering the proficiency test or the questionnaire and their difficulties and comments were noted down.

In the second session of the first week of the semester, the WTC and SC questionnaires were administered to the students. In this instance too, the instructions for answering the questionnaires were explained to the students, and they were requested to make a note of any items that were causing difficulties or were not clear.

In administering the research instruments to the DUBp students, the procedure followed and the information given were identical to that of the tCLT group except for a change in timing. Because the DUBp group was unfamiliar with the concept of learning exclusively through a meaning-based approach--with movie segments as the primary resource--the researcher had to assure the participants that the new treatment would not have any adverse effect on their final examination performance. Moreover, the researcher gave a brief introduction to the PowerPoint based movie method to motivate the students. The presentation was in English, with additional explanations in Sinhala and Tamil languages. The Sinhala and Tamil explanations were meant to ensure that the students were aware of what they were going to be exposed to and what was expected of them. The introductory lesson was based on the movie trailer that was to be shown to the students. For ethical reasons, the researcher then informed the participants that they had the right to withdraw from the experimental programme any time during the semester and to switch to a different class of their choice with the administrative assistance of either the researcher or the course coordinator; however, no participant requested a group change based on this. Because of the introduction to the movie approach, the General English proficiency test was postponed to the second session.

During the second meeting of the course, the GEP pre-test was first administered and, during the third meeting, the WTC and SC questionnaires were given to the DUBp participants.

At the end of the intervention, the same tests were given again. They could not be administered on the same day because of practicalities that actual classroom research entails, and because of the informal discussions that were held. The schedule of the data collection is given in table 3. 4.

Group	Class		Pre-Interver	ition		Post-Intervention	ervention		
	Schedule	GEP	WTC	SC	GEP Test	WTC	SC		
		Test	Questionnaire	Questionnaire		Questionnaire	Questionnaire		
DUBp	Monday-		21 st May	21 st May	3 rd				
	10 a.m. to		2012	2012	December				
	12.00 p.m.				2012				
	Wednesday	16^{th}				5 th December	5 th December		
	10 a.m.to	May				2012	2012		
	12.00 p.m.	2012							
tCLT	Monday-	14^{th}			3 rd				
	8.00 a.m.to	May			December				
	10.00 a.m.	2012			2012				
	Wednesday-		16 th May	16 th May		5 th December	5 th December		
	8.00 a.m. to		2012	2012		2012	2012		
	10 a.m.								

Table 3.4: Schedule of data collection

3.6 Data Analysis

The Statistical Package for the Social Sciences (SPSS) Version 16.0 was used for all the analyses. For the between-subjects analysis, which involved an independent variable with two levels (tCLT and DUBp groups), independent samples t-tests were used. For the within-subjects analyses of GEP and writing measures, which involved an independent variable with one level each, paired sample t-tests were run. However, paired sample t-tests could not be run for the willingness to communicate in English and self-confidence in using English measures because the participants had not written their names on the questionnaires. An alpha level of .05 was used for all statistical tests in analyses.

Several (descriptive) statistical tests were performed to see if the instruments were reliable and if the data were normally distributed. The results were also compared to those of Hong (2013). As the pre-test showed differences between the control and experimental participants, both independent samples t-tests and analyses of covariance were run. The covariate was the total score on the general English proficiency pre and post-tests (see below for outcomes).

For all measures, Cronbach alpha analyses were conducted first to ensure that both the pre and post-test proficiency scores were internally consistent. Next, a Pearson's correlation analysis was conducted to examine the relationship between the pre and post-test scores. Then, an independent samples t-test was conducted to look at the differences in gain between the control and experimental groups and to ascertain whether or not the differences were significant.

The independent variable was the condition (DUBp or tCLT), and the dependent variables were the gain scores, more commonly referred to as D score (unless otherwise indicated) of the outcome variables: general English proficiency and writing. A gain/D score was defined as the post-intervention score minus the pre-intervention score. With regard to willingness to communicate in English and self-confidence in using English, gain/D scores could not be calculated because it was not possible to correlate the pre-intervention and post-intervention questionnaires. Thus, instead of calculating the gain/D score, the two levels of the independent variables were compared. For instance, the pre-intervention questionnaires of tCLT.

For the writing task, the mean score of the teachers' ratings was considered because the inter-rater reliability was high. The total WTC was the total score of the item scales that a participant circled. A complete data set was one that had responses to all the 35 situations in the WTC questionnaire. Because the majority of the participants had not provided details of identification (they had not put their name on top of the questionnaire), it was not possible to use the independent samples t-test related samples (D scores) for computation even though the pre-intervention and post-intervention groups were related. Thus, an independent samples t-test was conducted to compare the WTC of the participants in pre-intervention DUBp and pre-intervention tCLT conditions and in post-intervention DUBp and post-intervention tCLT conditions.

The total SC score was the total score of the item scales that a participant circled. A complete data set was one that had responses to all the 35 situations in the SC questionnaire. Also in this questionnaire, many participants did not provide adequate details of identification. Therefore, it was not possible to use the independent samples t-test related samples for computation (D scores) even though the pre-intervention and post-intervention groups were related. For the purpose of analysis, an independent samples t-test was conducted to compare the SC of the participants in pre-intervention DUBp and pre-

intervention tCLT conditions and in post-intervention DUBp and post-intervention tCLT conditions.

3.7 Results

Eight participants each from the DUBp and tCLT were eliminated from quantitative analysis of the general English proficiency and writing variables because the subjects had either not written their names clearly on the general English proficiency paper or had not taken one of the English proficiency tests, leaving seventy-three complete data sets for analysis. With regard to the pre and post intervention WTC and SC variables, the data of all the participants that completed the questionnaires were subjected to quantitative analyses. The distribution of participants on the basis of GEP, writing, WTC, and SC variables are given below in Table 3.5.

GEP and writ	ting variables	WTC/SC variables		
Before	After	Completion of	Completion of	
elimination	elimination	pre-intervention	post-intervention	
		questionnaires	questionnaires	
Ν	Ν	Ν	Ν	
48	40	44	27	
41	33	41	22	
	GEP and write Before elimination N 48 41	GEP and writing variablesBeforeAftereliminationeliminationNN48404133	GEP and writing variables WTC/SC Before After Completion of elimination elimination pre-intervention N N N 48 40 44 41 33 41	

Table 3.5: Distribution of participants per measure

The first research question was to test whether the participants in Hong (2013) or the participants in the current study were more proficient. The general English proficiency and writing (GEP) pre-test scores of Hong's (2013) participants were compared with those of the current participants. The means and standard deviations of the pre-test scores of the two groups are presented below in Table 3.6.

Variable		Ν	Mean	Std. Deviation	Std. Error Mean
GEP	Hong (2013)	163	13.1534	5.52054	.43240
(Pre-test)					
	Study 1	73	36.9315	9.95731	1.16541
Writing	Hong (2013)	163	1.1049	.94290	.07385
(Pre-test)					
	Study 1	73	2.3904	.67003	.07842

Table 3.6: Means and Standard Deviations of GEP pre-test scores

An independent samples t-test was conducted to determine if there was a significant difference between the two groups. The results indicated that the difference in pre-test scores between Hong's participants and Study 1 participants were significant, t (234) = -23.50, p<.001 for GEP; and t (234) = -10.51, p<.001 for writing. This result suggests that the participants of Study 1 were (much) more proficient than Hong's participants. The difference between the two groups in GEP and writing pre-test is more clearly illustrated in the box plots in Figure 3. 1



Figure 3.1: The difference in GEP and writing pre-test scores between the two groups

In order to determine the English language proficiency of the participants of Study 1, the mean scores (GEP pre-test) of the DUBp and tCLT groups were furthermore examined. The mean scores of the two groups, when examined, revealed that the DUBp group had a higher mean than the tCLT group. The means and standard deviations of the pre-test scores of the two groups are presented below in Table 3.7.

Table 3.7: Means and Standard Deviations of Pre-test GEP Scores

Condition	Ν	Mean	Std. Deviation	Std. Error Mean
tCLT	33	34.36	9.971	1.736
DUBp	40	39.05	9.554	1.511

An independent samples t-test was conducted to determine if there was a significant difference between the two groups. The results indicated that the difference in pre-test scores between the DUBp and tCLT groups was indeed significant, t (71) = -.20, p < .05. This result suggests that the participants in the DUBp group were more proficient than the tCLT group to begin with. Since there was thus a difference in pre-test scores between the two groups, the gain score (post-test minus pre-test) was used to operationalize any gains in English language proficiency of the participants, as such a measure takes the difference at the outset into account.

3.7.1 Measures

As mentioned in 3.1, one of the objectives of the current study was to examine whether the instruments were clear to the subjects as they were intended to be, to measure the amount of time required by the subjects to complete the proficiency test and the WTC and SC questionnaires, and to identify any potential practical problems in following the research procedure. The instruments were also tested for internal reliability.

The procedure adopted in the current study was the same as that of Hong (2013). The researcher did not encounter any practical problems because an established procedure was followed. Moreover, informal discussions with subjects indicated that the instructions were clear as intended.

The time taken by the majority of the subjects to complete the GEP and writing test was approximately seventy minutes (70) and fifteen (15) minutes for each questionnaire respectively. The explanation of the purpose of the study and instructions for completing the questionnaire took--on average--about two hours and thirty minutes. Table 3.8 gives the measures and estimated time of completion for each.

Table 3.8: Measures and Estimated Time of Complet	ion
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No.	Measures	Time Taken (in
		Minutes)
1.	General English Proficiency Test and Writing	70 Minutes
2.	Willingness to Communicate in English Questionnaire	15 Minutes
3.	Self-Confidence in Using English Questionnaire	15 Minutes

3.7.1.1 General English proficiency

The reliability of the general English Proficiency (GEP) test proved to be acceptable, with a Cronbach's alpha value of .88 for the pre-test and .86 for the post-test. The histogram of the GEP gain revealed a normal distribution. A Pearson's correlation analysis showed that there was a significant positive relationship between the pre-test and post-test scores, r(73) = .66; p <.001 (two-tailed), showing that the higher the participants scored on the pre-test, the higher they tended to score on the post-test. The means and standard deviations of the GEP pre-test, the GEP post-test, and the GEP gain scores of DUBp and tCLT conditions are presented below in Table 3.9. As the aim of Study 1 was simply to validate the test materials, the difference in pre-test-post-test gain score between the groups does not yet form the main objective of investigation and is therefore not reported below. The results of the paired and independent samples t-tests will instead be presented in section 3.7.2 below.

Condition	Number	Pre-test	Post-test	GEP Gain
tCLT	33	34.36(9.97)	41.24(9.99)	6.88(8.35)
DUBp	40	39.05(9.55)	46.73(6.13)	7.67(7.36)

Table 3.9: The means and standard deviations of the GEP pre-test, the GEP post-test, and the GEP gain scores of DUBp and tCLT conditions

3.7.1.2 Writing

The interrater reliability of the writing scores proved to be high, with a value of Cronbach's alpha 0.79 for the four raters. The mean correlation between the raters was 0.51.

The histograms of the writing gain score appeared to be normal. A Pearson's correlations analysis showed that there was a positive relationship between pre-writing scores and post-writing scores, r(73) = .68; p < .001 (two-tailed), signifying that the higher the raters scored on the pre-writing test, it was more likely that they did the same on the post-writing test.

Writing scores in the pre and post-test correlated highly with the GEP pre and post variables. The mean correlation between these four variables was 0.58 and the associated Cronbach's alpha was 0.85. Hence, all four measures seem to measure largely the same GEP-factor. The means and standard deviations of pre-writing, post-writing, and writing gain scores of the DUBp and tCLT conditions are given in Table 3.10 below.

Table 3.10: Mean and Standard Deviations of Pre-Writing, Post-Writing, and Writing Gain Scores of the tCLT and DUBp Conditions

Condition	Ν	Pre-Writing	Post-Writing	Writing Gain
		Mean (SD)	Mean(SD)	Mean (SD)
tCLT	33	8.76(2.63)	10.85(2.69)	2.09 (2.17)
DUBp	40	10.03(2.63)	12.30(2.83)	2.27(2.27)

3.7.1.3 Willingness to communicate in English (WTC) and self-confidence in using English (SC) questionnaires

The reliability of the WTC questionnaire proved to be acceptable with a value of 0.94 for Cronbach's alpha for the pre-WTC and 0.92 for the post-WTC. The histogram of the WTC gain score looked normal.

The reliability of the SC questionnaire proved to be acceptable with a value of 0.95 for Cronbach's alpha for the pre-intervention SC and 0.96 for the post-intervention SC. The histogram of the SC gain score again looked normal.

3.7.2 Effects of Instructions on the DUBp and tCLT Participants

The general English pre-test and post-test performances of the DUBp and tCLT participants were compared. The Paired Samples t-Tests showed a significant difference between the pre-test and the post-tests for both the tCLT Group, t (33) = -4.73; p < .001, and the Experimental Group, t (40) = -6.59; p < .001. These results show that the participants of both the DUBp and tCLT conditions had benefited from the respective interventions they were exposed to. The difference in the GEP pre-test and post-test performance of the participants of the DUBp and tCLT conditions is illustrated in Figure 3.3 below.



Figure 3.3: The difference in the GEP pre-test and post-test performance of the participants of the DUBp and tCLT conditions.

As evident in Figure 3.3 the DUBp participants performed better on the general English proficiency test than the tCLT participants, both on the pre and post-test. An independent samples t-test was conducted to compare the GEP gain score of DUBp and tCLT participants. The independent samples statistics revealed that there was no significant difference in the GEP gain score for DUBp (M=14.50, SD=8.68) and tCLT (M=13.15, SD= 11.6) conditions, t (71) =.56, p=.57. In other words, the two conditions seem to equally improve on this measure as a function of time, without one group showing a greater improvement than the other.

To inspect these results on a more detailed level, a one-way analysis of covariance (ANCOVA) was also conducted for this study. The independent variable was operationalized into two levels: the DUBp and tCLT conditions. The dependent variable was the gain score of the general English proficiency variable (post-test minus pre-test). The covariate was the total score on the pre-test and post-test. A preliminary analysis evaluating the homogeneity-of-regression (slopes) assumption indicated that the relationship between the covariate and the dependent variable did not differ significantly as a function of the independent variable, F(2, 69) = 1.47, p = .235. The ANCOVA was not significant, F(1,70) = .49, p > .001. In other words, this test once again confirmed that there was no significant difference in the GEP performance of the participants of the DUBp and tCLT conditions although there seemed to be a difference at first glance. The ANCOVA statistics is presented below in Table 3. 11.

	Tests of Between-Subjects Effects								
Dependent Variable: Gain (Post Total minus Pre Total)									
Source	Type III Sum of Squares	df	Mean Square	F	Sig.				
Sum Pre-test and Post-test	29.956	1	29.956	.289	.592				
Condition	50.753	1	50.753	.490	.486				
Error	7248.286	70	103.547						
Total	21396.000	73							

Table 3.11: ANCOVA statistics

3.7.2.2 Writing

The Paired Samples t-Tests showed a significant difference between the pre-writing and the post-writing for the tCLT group, t(32) = -5.53; p <.000, and for the DUBp group, t(39) = -6.32; p <.000. These results signify that the participants in both the tCLT and DUBp groups had progressed from pre intervention to post intervention despite the differences in the approaches to teaching: the former emphasizing deliberate writing practice, the latter taking the focus off skills and adopting a holistic approach. Figure 3.4 shows the pre-writing and post-writing scores of the DUBp and tCLT conditions.



Figure 3.4: Pre and Post-writing Scores of DUBp and tCLT Conditions.

As is apparent in Figure 3.4, there seems to be a difference in the degree of progress made by the participants of the DUBp and tCLT. Hence, an independent-samples t-test was conducted to compare if the difference between the two groups in writing was significant. The independent samples statistics revealed that there was no significant difference in the writing gain score for DUBp (M=6.82, SD=6.82) and tCLT (M=6.27, SD= 6.51) conditions, t (71) = .35, p=.73. This result indicated that the DUBp students, who did not focus on specific skills or production but on a holistic approach through frequent exposure to authentic language, performed as well as the tCLT group, which was offered a skills-based approach and focused on presentation, practice, and production of the relevant skills.

To inspect these results on a more detailed level, a one-way analysis of covariance (ANCOVA) was also conducted for this study. The independent variable was operationalized into two levels: the DUBp and tCLT conditions. The dependent variable was the gain score writing (post-test writing minus pre-test writing). The covariate was the total writing scores (pre-test writing and post-test writing). A preliminary analysis evaluating the homogeneity-of-regression (slopes) assumption indicated that the relationship between the covariate and the dependent variable did not differ significantly as a function of the independent variable, F(1, 69) = .061, p =.805. The ANCOVA was not significant, F (1,70) =.60, p >.001. In other words, this test once again confirmed that there was no significant difference in the GEP performance of the participants of the DUBp and tCLT conditions although there seemed to be a difference at first glance. The ANCOVA statistics is presented below in Table 3. 12.

Tests of Between-Subjects Effects							
Dependent Variable: Gain Sore Writing							
Source	Type III Sum of	df	Mean Square	F	Sig.	Partial Eta	
	Squares					Squared	
Sum Writing	.115	1	.115	.350	.556	.005	
Condition	.020	1	.020	.060	.807	.001	
Error	22.915	70	.327				
Total	46.340	73					
Corrected Total	23.087	72					

Table 3.12:	ANCOVA	statistics	(Writing)
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3.7.2.3 Willingness to communicate (WTC)

An analysis of the pre and post- intervention scores for willingness to communicate of the respondent who completed the questionnaires is shown in Table 3. 12. The mean scores of the post-intervention WTC are higher in all of the cases, which reflect the students' increased willingness to communicate in English. The Pre WTC and Post WTC intervention Means and Standard Deviations of the two conditions: tCLT and DUBp are presented in Table 3.13 below.

Condition	Ν	Mean	Std. Deviation
Pre tCLT	41	102.2	17.70
Post tCLT	22	108.4	14.28
Pre DUBp	44	95.79	26.87
Post DUBp	27	108.3	20.82

Table 3.13: The Pre WTC and Post WTC intervention Means and Standard Deviations of the two conditions: tCLT and DUBp

Responses ranged from "Not Willing At All" to "Very Willing" on a 4-point Likert -scale, with values 1-4 assigned to each alternative.

It was not possible to compare the WTC gain scores of the DUBp and tCLT conditions because the majority of the participants had not provided any details of identification. Hence, independent t-test related samples were not used for computation. Instead, an independent t-test was computed to determine if there was a significant difference between the WTC pre-intervention scores of the DUBp participants and the WTC pre-intervention scores of the DUBp participants and the WTC pre-intervention scores of the tCLT participants on the one hand, and the post-intervention scores of the DUBp participants and the post-intervention scores of the tCLT participants on the other. The results revealed that there was no significant difference in the scores either for pre-intervention DUBp (M=95.79, SD=26.87) and pre-intervention tCLT (M=102.22, SD=17.70) conditions; t (83) =1.29, p=.20, or for post-intervention DUBp (M=108.30, SD=20.82) and post-intervention tCLT (M=108.45, SD=14.28) conditions; t (47) =.03, p=.97. Even though there was no significant difference between the pre and post-intervention mean scores, as the graph below illustrates, the line of improvement for DUBp is steeper than that of the tCLT. The increase in the mean scores from pre-intervention WTC to post-intervention WTC of the two conditions is graphically presented in Figure 3.6 below.





3.7.2.4 Self-confidence

An analysis of the pre and post intervention questionnaire scores reveal that the mean scores of the post-intervention SC are higher in both conditions, which reflects the students' increased self-confidence in using English. The Pre SC and Post SC intervention means and standard deviations of the two conditions, tCLT and DUBp, are presented in Table 3.14 below.

Condition	Ν	Mean	Std. Deviation
Pre tCLT	41	95.17	18.78
Post tCLT	22	105.18	17.95
Pre DUBp	44	92.88	16.44
Post DUBp	27	100.74	23.08

Table 3.14: Pre SC and Post SC intervention Means and Standard Deviations of the two conditions: tCLT and DUBp

Responses ranged from "Not Confident At All" to "Very Confident" on a 4-point Likert –scale with values 1-4 assigned to each alternative.

An independent samples t-test was conducted to compare the self-confidence of the participants in using English in pre-intervention DUBp and pre-intervention tCLT conditions and in post-intervention DUBp and post-intervention tCLT conditions (just as was done for WTC [see 3.7.2.3]). In the case of SC variable also, it was not possible to use the independent t- test related samples for computation even though the pre-intervention and post-intervention groups were related because the majority of the participants had not provided any details of identification).

The results of the analysis revealed that there was no significant difference between either pre-intervention DUBp (M=92.88, SD=16.44) and pre-intervention tCLT (M=95.17, SD= 18.78) conditions; t (83) =.598, p=.52, or between post-intervention DUBp (M=100.74, SD=23.08) and post-intervention tCLT (M=105.18, SD=17.95) conditions; t (47) =.74, p=.46. The increase in the mean scores from pre-intervention SC to post-intervention SC of the two conditions is graphically presented in Figure 3.7 below, which indicates an almost parallel development for both conditions.



Figure 3.7: Increase in Average of Pre-SC and Post-SC of the DUBp and tCLT groups

3.8 Discussion and Conclusion

Study 1, a quasi-experimental longitudinal study, was a replication of the study conducted by Hong (2013). The current study was carried out (1) to test the study measures and procedures adopted by Hong with a group of learners from a different learning context and (2) to evaluate the effectiveness of the PowerPoint based multimedia course founded on a dynamic usage-based perspective to second language teaching in order to transform it to a self-instructional material-centered multimedia computer programme. Seventy-three undergraduates, who were assigned to two conditions, DUBp and tCLT, participated in the study.

There were 4 research questions underlying the study, all of which will be answered separately below.

1. Study 1 first attempted to ascertain the level of English language proficiency of the participants in the current study in relation to the participants of Hong's (2013) study.

The results revealed that the general English language proficiency and writing proficiency of the participants in Study 1 were significantly higher than that of the participants in Hong (2013), who were defined as beginner level students. This finding was to

some extent expected because the participants of the current study entered the programme with various language proficiency backgrounds while the participants of Hong's study were all beginner-level students. However, it came as a surprise to find that participants who were considered beginners at the Faculty of Management Studies and Commerce at the University of Sri Jayewardenepura were more proficient than Hong's beginners in both general English proficiency and writing.

2. Study 1 also evaluated the appropriateness of the study measures, the methods and procedures established and validated by Hong (2013) for the experiment described in this dissertation.

Even though the students in the current study were significantly more advanced than those in Hong's study, the same research instruments proved to be highly reliable, as evidenced by good Cohen alpha scores (Cohen, 1998), and a high positive correlation between the pre-test and post-test scores. The implementation of the tests and the post implementation discussions held with the participants did not bring to light any potential problems with the instruments, methods or procedures except for the fact that the frequency of exposure to the movie scenes varied slightly.

3. In addition, the study tried to find out if a DUB approach to second language teaching to the students of the Faculty of Management Studies and Commerce at the University of Sri Jayewardenepura more effective than the standard pedagogical approach based on the principles of communicative language teaching (tCLT).

Even though there were differences in the initial GEP scores between the DUBp and tCLT groups, there were no significant differences in gain scores for any of the variables. In other words, the two different treatments were similar in effect. The within group results revealed that both the DUBp and tCLT participants significantly improved from the receptive and productive general English proficiency pre-test to the post-test. In addition, the DUBp participants were as willing to communicate in English and were as self-confident in using English as the tCLT participants were. The results of the within group analyses of the WTC in English indicated that there was a significant difference between the pre and post-intervention in the DUBp group but not in the tCLT group. The results of the within group

analysis for SC revealed that there was no significant difference in the scores for either prepost intervention in either group.

Since a dynamic usage-based perspective to second language teaching focuses on comprehensible input rather than on practice and production, it can be argued that a DUB approach can be more practical in a large class where giving constructive feedback on an individual basis, providing guided practice, and monitoring students' performance on a task (be it a fluency or accuracy task) are quite challenging. Nevertheless, before arriving at a conclusion on the effect of either the CLT approach or a DUB approach on L2 learners' progress, it is best to give the experimental approach (DUB) time, for the concepts proposed in a DUB approach are unfamiliar to the teachers and students requiring them to restructure their thinking to a great extent.

4. The study finally assessed the feasibility of incorporating the instructional materials designed for the experimental DUBp intervention into a self-instructional material-centered multimedia computer programme for individualized self-paced learning.

The analyses of the results confirmed that the DUBp participants performed as well as the tCLT participants in general English proficiency and writing. Since a DUB approach to second language teaching stipulates that a second language is best learnt if a learner is exposed to comprehensible input, and basically emphasizes on providing input as opposed to output (see 2.5.1), it can be assumed that integrating the said approach into a selfinstructional material-centered multimedia computer programme for the proposed Study 2 will help the Faculty of Management Studies and Commerce overcome the problem of oversized classes due to a shortage of qualified second language teachers (see Chapter 5 for an elaborate discussion of the findings).

Chapter 4 Study 2

Study 1 revealed that a dynamic usage-based approach in PowerPoint-based multimedia format (teacher directed) worked as well as the traditionally employed CLT approach in the Sri Lankan context. Although this is encouraging, it does not solve the problem of teacher shortages and oversized classrooms. The purpose of Study 2 was to explore the effect of a self-instructional material-centered multimedia computer programme on the general English language proficiency of tertiary level learners enrolled in the compulsory first-year English programme at the Faculty of Management Studies and Commerce of the University of Sri Jayewardenepura, Sri Lanka. This can allow learners to work through the materials at their own pace, thus taking the individual differences that characterize the student population into account. The English programmes are included as compulsory pre-requisites to different core courses conducted by the Faculty. The self-instructional material-centered multimedia computer programme used as the basis for this study, which was based on a dynamic usagebased approach to second language teaching, was compared to two other traditional modes of teaching with the teacher in control of delivering the input: (1) a teacher-fronted dynamic usage-based multi-media instructional approach and (2) a teacher-fronted communicative language teaching method in a traditional classroom setting.

The main aim underlying Study 2 was to see if the self-instructional material-centered multimedia computer programme was beneficial in terms of learning outcomes. To achieve this aim, this chapter first of all details the background to the study and the research questions. Next, the research design of this investigation is outlined. Then, the participants and the instructional materials used in the experiment are described. As a next step, the processes by which the instruments specially designed for this research were created are explained. Finally, the techniques used to analyse the data and the results obtained are discussed.
4.1 Background to the Study

In Sri Lanka, despite the emphasis placed on input, interaction, and output, the learning and teaching of English has not been very successful. This could be due to many reasons: Young Silva (1982) and Gajadeera (2002) both consider it to be due to a dearth of English teachers in Sri Lanka, which has resulted in teachers having to teach large classes of about forty to sixty students (Young Silva, 1982, p. 199). Nagasundaram (1996) states that the CLT approach has not been successful not because of its pitfalls but because of the incorrect implementation of the approach in classroom practices, where more attention is given to direct teaching of language form (grammar) rather than incorporating form and meaning. Raheem (2004) believes that teacher inadequacies arising from lack of experience and lack of proficiency are reasons for the failure.

Recruiting qualified and experienced English teachers (see Chapter 1 for reasons cited for the teacher shortage) to teach university undergraduates is a problem common to all universities in Sri Lanka. For FMSC, with a student enrollment of nearly one thousand a year, the search for qualified and experienced second language teachers is even more difficult. To overcome this problem of teacher shortage, the Faculty has invested in a fully equipped multimedia language laboratory with one hundred computers under the so-called HETC project, which is a World Bank-funded project.

This multi-media laboratory, which has been established solely for second language teaching and learning, can be used by all full-time students of the Faculty. Moreover, the Faculty already has six computer laboratories with a total of around 400 computers that can be used by both language teachers for teaching purposes and students for language learning upon prior reservation.

In other words, the facilities are present. At the same time, however, no empirically tested self-instructional material-centered and pedagogically sound multimedia computer programmes exist either to solve or to overcome the problem of English language teaching that the Faculty is confronted with, heavily restricting the usefulness of the availability of the computers.

Hence, as mentioned in Chapter 3, implementing a dynamic usage-based approach to second language teaching, which has been proven effective by Hong (2013) as well as in Study 1, into a computer programme that can be tailored specifically for self-instructional

learning and investigating its effectiveness is of particular importance to the Faculty of Management Studies and Commerce.

This chapter thus presents an effect study evaluating such a programme that was specifically designed for this study but that, once found to be effective, can be implemented into the Faculty on a larger scale. In order to carry out this investigation, the research site chosen was the same as that of Study 1--The Faculty of Management Studies and Commerce, University of Sri Jayewardenepura (see 3.2 for a detailed description of the research site/context).

4.2 **Research Questions**

Study 2 of this project attempts to answer the following questions:

- 1. Is a dynamic usage-based approach to second language teaching when delivered through a self-instructional material-centered multimedia computer programme (DUBc) as effective as either a PowerPoint based programme in which a teacher is in control of the mode of delivery (DUBp) or as the current teacher-fronted communicative language teaching programme that is effective in Sri Lankan second language classrooms (tCLT)?
- 2. Do the students who were given the DUBc and DUBp interventions view the respective treatments they were exposed to positively, both methods being radically different from the CLT method they were used to up until then?

4.3 Research Design

Like Study 1, the current study was a quasi-experimental longitudinal study in which the random selection or allocation of individual cases to different conditions was not possible. In this investigation, too, neither the researcher nor the participants could choose the group to which the subjects were assigned due to intact classes having to be selected. As mentioned in 3.2, grouping of students is generally done by the university based on the Z score obtained by the participants at the G. C. E. (Advanced Level) examination. The only thing the researcher could do was randomly choose the experimental and control groups from a total number of

26 groups. In choosing the DUBp groups, the researcher made sure that students who were normally taught in classrooms equipped with multimedia projectors were selected because the experimental learning materials were in PowerPoint format. However, this in no way presents an advantage for the DUBp over the DUBc and tCLT groups.

The research design was chosen to assess the effect of different interventions (i.e. DUBc, DUBp, and tCLT) on the general English language proficiency of the students (details of the methods are given below in 4.5). The DUBc participants followed a self-instructional material-centered multimedia (general English) course founded on the principles of the dynamic usage-based perspective to second language teaching (with a movie as the primary resource) in which the participants could learn in an individualised self-paced learning environment. The DUBp participants followed a teacher-directed general English course founded on the principles of the dynamic usage-based perspective to second language teaching, by using a PowerPoint-based multimedia format with a movie as its primary resource. The tCLT participants followed a teacher-directed general English course based on the principles of the communicative language approach that forms part of their second language teaching experience. The participants were all informed of the objectives of the study prior to its commencement, and their consent was obtained via a consent form. Permission was also obtained in writing from the Dean of the Faculty of Management Studies and Commerce, University of Sri Jayewardenepura to conduct the study at the Faculty.

4.3.1 DUBc Group

The DUBc instructional approach was very similar to the DUBp approach in that it was grounded on the principles of a dynamic usage-based approach to second language teaching; it was a multimedia instructional approach that provided authentic input; and the primary resource used in the creation of the instructional approach was the movie *Pursuit of Happyness*. For the DUBc experiment, the PowerPoint-based multimedia instructions (see 3.4.1 for details) of the DUBp condition were transformed into 34 e-learning lessons (modules) through CourseLab (© WebSoft Ltd., Russia), an e-learning authoring tool, and published on CD-ROMs for easy transferral to the university computers. In short, the main difference between the DUBp and DUBc programme was in the mode of delivery of the instructional materials. The former was delivered by a teacher, using a face-to-face delivery mode in a PowerPoint-based multimedia format, while the latter was delivered through a self-

instructional material-centered multimedia computer programme. In the case of the latter, a computer was assigned to each participant who worked at her/his own pace in an individual learning environment, facilitating low-ability learners to move forward at their own pace and high-ability learners to take a non-linear path (Soyemi, Ogunyinka, & Soyemi, 2011). Research with regard to the effectiveness of technology-based self-paced instruction has reported that "this type of instruction improves performance and that students master the learning objectives in significantly less time than students in group-paced instruction" (Dalton, Hannafin, & Hooper, 1989; Fletcher, 1996; cf. Dobrovolny, 2006, p. 55), which in a large heterogeneous second language class may disintegrate easily (Prodromau, 1994, p. 12; cf. Perera, 2010). The similarities and differences between the DUBc and DUBp programmes are outlined in Table 4.1.

	DUBp	DUBc
Similarities	Based on the principles of a dynamic usage-based approach to second language teaching Multimedia instructional approach Primary Resource: The Movie <i>The Pursuit of Happyness</i> divided into segments	Based on the principles of a dynamic usage- based approach to second language teaching Multimedia instructional approach Primary Resource : The Movie <i>The Pursuit of Happyness</i> divided into segments
Differences	Teacher directed Learning materials presented in PowerPoint format and administered by a teacher	Self-instructional (3 teachers, a computer technician, and the researcher were present in the computer lab to assist the participants in case they needed any technical assistance) Learning materials incorporated into a self- instructional material-centered multimedia computer programme (e-learning authoring tool) in which learners to learn individually at their own pace

Table 4.1: The similarities and differences between the DUBp and DUBc programmes

4.3.1.1 Design features of the self-instructional material-centered multimedia computer programme

The e-Learning authoring tool that was used to create the lessons was CourseLab 2.4. CourseLab was selected and implemented in consultation with Dr. Sake Jager of the University of Groningen.

In order to create interactive e-Learning lessons in Course Lab 2.4, knowledge of programming language is not a requisite. What is required is a working knowledge of Microsoft Windows operating system and its basic functions. Learning modules created with

CourseLab can be published on the internet, Learning Management Systems (LMS), and on CD/DVD-ROM.

An M.A. student in Linguistic (2012) at the University of Groningen, Ms. Pei Yi Liu, handled the technical aspects of the creation of the e-learning lessons in CourseLab 2.4. She also pilot tested the programme as part of her M.A. thesis research with a group of five Chinese students at the University of Groningen, the Netherlands. The participants of the pilot test were 4 female students from the Master of Applied Linguistics and 1 male PhD student from the department of Material Sciences. The pilot participants were first asked to examine three scenes from the self-instructional material-centered multimedia computer programme, including the introduction and two movie scenes selected by Ms. Pei Yei Liu. The pilot participants were asked to complete a questionnaire containing 2 Parts (Part 1- 12 statements and Part 2-94 statements) that were concerned with the appearance and user-friendly nature of the programme as well as the clarity of the instructions that were given for each scene. For each statement, each participant was asked to give a rating from 1 to 5, with 1 indicating I totally disagree with the statement and 5 indicating I totally agree (Yi Liu, 2012).

4.3.1.2 Design

The programme design was chosen in order to draw the learners' attention not only to the stimulus (or input) but also to the meaning and context of the input, in a repetitive manner, on the assumption that the input would be entrenched in the learners' mind.

Selection of the material for the self-instructional material-centered multimedia computer programme

The teaching pedagogy behind the self-instructional material-centered multimedia computer programme was a dynamic usage-based approach to second language teaching, and thus it was important that the material should expose learners to meaningful content, embedded within a social and cultural context. The movie "The Pursuit of Happyness", divided into 1 to 2 minute segments, was chosen as it not only provided authentic, 'everyday' language and scope for frequency of input (movie scenes can be repeated as many times as necessary), but the scenes also offered sufficient opportunities for discussion of the social and cultural contexts. In addition, the verbal utterances in the movie segments were thought to raise the

students' awareness of the lexical expressions of the language (for instance, *Don't ever let somebody tell you you can't do something*).

The programme that was designed for this study consisted of an introduction (the movie trailer) and then the 33 scenes of the film. The design of the programme was consistent for each scene. An in-depth description of each part of the design can be found below:

Screen design of the self-instructional material-centered multimedia computer programme

The screen was designed in such a way that the learners would understand what each screen was for and what they were expected to do on each screen. The lay-out of screens for similar purposes was kept constant (for example, the screen frame that displays step 1 had the same layout, instructions etc. for all 34 scenes) so that learners would easily be able to recognise the purpose of each screen. Three types of screen frames were designed for the programme.

- The first was the movie screen (shown in steps 1, 2, 4, and 5 below). This screen offered a large screen for learners to watch the movie easily and clearly.
- The second type of screen was a lecture screen, which offered tabs that could be selected to choose different options for receiving information or an additional explanation about the content of the movie segment.
- The third type of screen was a quiz screen, which depicted assessment questions for each of the movie segments. Each screen had a clear title at the top to ensure students understood where they were in the programme. Figure 1 depicts an example of the screen design.

Each screen was divided into three separate panels: a heading panel, an implementation panel (working area), and a navigation panel. The heading panel (blue rectangle) contained the goal for each screen--what the learner was expected to do. The implementation panel, also called the working area, contained the main content of each screen, such as the video or dialogue. There was also a pop-up window in this area which gave instructions to the learners. This pop-up window contained an audio button and explanations. Learners could choose to just listen to the sound or also have the instructions printed on the screen. The blue navigation panel, also called the toolbar, consisted of a menu, a help button, a replay button, a progress

bar, 6 step buttons, a back button, and a next button. The MENU button showed how many scenes were in the course. The HELP button showed the instructions for each screen or course. The REPLAY button was added to ensure students had sufficient exposure to the input, should they wish. The PROGRESS bar displayed the navigation options of the screen. The 6 STEPS button showed the scaffolding process the learners needed to follow for each movie segment (Yi Liu, 2012, pp. 13-20). Figure 1 below depicts the screen design of the self-instructional material-centered multimedia computer programme.



Figure 1: Screen Design of the self-instructional material-centered multimedia computer programme

The Design Layout of the self-instructional material-centered multimedia computer programme

The design layout of the self-instructional material-centered multimedia computer programme consisted of a pedagogical sequence which itself was based on the tenets of a dynamic-usage-approach to second language teaching (Verspoor & Hong, 2012; see also 2.5), a quiz, and a report page.

1. Pedagogical sequence of the self-instructional material-centered multimedia computer programme.

The object of a DUB approach to second language teaching is that learners will understand everything, for instance everything the characters say in a movie segment, including the semantics behind the utterances. In order to achieve this, the movie segments were shown

repeatedly to the students and all the utterances were explained in detail to the students, the rationale being that upon each viewing the students could focus on different aspects. Each movie segment was accompanied by six steps that would help the learners understand everything, from a first, very generalised step, to very specific explanations by step 5.

Following from the pedagogical stipulations of a DUB approach to second language teaching that both scaffolding and frequency of input are important in achieving success in learning a second language, the computer programme was designed to show each movie segment 6 times, focusing on a variety of techniques including scaffolding to ensure meaning was imparted to the students.

The steps in the computer programme were almost the same as that of the DUBp programme (refer to 3.4.1). The sequence of steps in the self-instructional material-centered multimedia computer programme is outlined below:

Step 1: Watch and Listen -- Getting the general idea of the scene

The learners were asked to watch the scene. The goal was to have students pay attention to the scene in general and get the gist of what was happening, so a very general question was asked. For instance, "*Where are the son and father going?*" The purpose of this question was to activate thinking and deduction skills in the learners whilst they were watching the movie segment. In this way their attention would be concentrated on seeking meaning rather than on passively receiving the input.

In this step, instructions were also given to learners on how they could check their answer to the general question by clicking on the ANSWER button (This feature was not available in the PowerPoint lesson. In the PowerPoint lesson, the teacher gave the answer). In this step, the ANSWER button, the pop-up window, and SOUND button were of particular use to the learner in that they could manage the learning process through these buttons.



Figure 2: A screen shot of step 1

Step 2: Watch, Listen and Read-- Seeing the scene with text.

The goal of step 2 was to have students pay attention to what the characters said. Sub- titles in English were also integrated into the movie segment at this stage.

In this step, students had the option of replaying the scene as many times as they wished until they had read and heard every utterance in the scene. This could be done by clicking on the PLAY button.

In step 2, you will watch, listen and read a text of the scene. Click Play to start watching the scene. Click X to close the window.	In step 2, you will watch, listen and read a text of the scene. Click Play to start watching the scene. Click X to close the window.	Step 2: Watch, listen and read	
In step 2, you will watch, listen and read a text of the scene. Click Play to start watching the scene. Click X to close the window.	In step 2, you will watch, listen and read a text of the scene. Click Play to start watching the scene. Click X to close the window.		
In step 2, you will watch, listen and read a text of the scene. Click Play to start watching the scene. Click X to close the window.	In step 2, you will watch, listen and read a text of the scene. Click Play to start watching the scene. Click X to close the window.		
In step 2, you will watch, listen and read a text of the scene. Click <u>Play</u> to start watching the scene. Click X to close the window.	In step 2, you will watch, listen and read a text of the scene. Click <u>Play</u> to start watching the scene. Click X to close the window.		
In step 2, you will watch, listen and read a text of the scene. Click Play to start watching the scene. Click X to close the window.	In step 2, you will watch, listen and read a text of the scene. Click Play to start watching the scene. Click X to close the window.		
In step 2, you will watch, listen and read a text of the scene. Click Play to start watching the scene. Click X to close the window.	In step 2, you will watch, listen and read a text of the scene. Click Play to start watching the scene. Click X to close the window.	4.5	Ø
In step 2, you will watch, listen and read a text of the scene. Click <u>Play</u> to start watching the scene. Click X to close the window.	In step 2, you will watch, listen and read a text of the scene. Click <u>Play</u> to start watching the scene. Click X to close the window.	N	0
Click <u>Play</u> to start watching the scene. Click X to close the window.	Click <u>Play</u> to start watching the scene. Click X to close the window.	In step 2, you will watch, listen and read a text of the scene.	
Click X to close the window.	Click X to close the window.	Click <u>Play</u> to start watching the scene.	
		Click X to close the window.	



Figures 3 and 4: Screen shots of step 2.

Step 3: Focus on what the characters say.

In step 3, the text of each utterance in the scene was given separately in writing, with the utterance explained using paraphrases, illustrations or sometimes the L1 of the students (Sinhala and Tamil). Where appropriate, not only the literal meaning but also the intended, pragmatic meaning was explained. By clicking on the sound button, learners could choose to listen to a teacher give an explanation of an utterance slowly, articulating all sounds that might not have been salient or heard in the movie character's speech. The navigation panel facilitated learners to choose the utterances/chunks/sentences for which they needed further elaboration, clarification, or definitional support, allowing the option of repetitions of explanations. This feature also allowed the programme to accommodate individual students' needs, for some students would require both aural and written explanations for certain utterance, whilst others would not need such detailed explanations.

During step 3, learners also had the option to watch the scene again, in order to review the scene and focus on the exact dialogue of the characters.



Figure 5: A screen shot of step 3.

Step 4: Watch, Listen, and Read. Look up words if necessary--consolidating comprehension.

The goal of step 4 was to consolidate comprehension. The learners watched the scene again on a smaller screen to the left, with the text appearing on the right. The learners could click on expressions that would link to the explanations given in step 3.

The tooltips (accessed via the orange numbers as seen in Figures 6 and 7) enabled learners to hear and see explanations and meanings of specific statements in the target language in the students' L1 (Sinhala and Tamil). If learners had forgotten the meaning or explanation of the specific sentences, they could move their mouse over the number that was located next to the sentence and a pop-up window with the meaning and explanation would appear.



Figures 6 and 7: Screen shots of Step 4.

Step 5: Trying to understand everything -- Comprehension without assistance.

The goal of this step was to expose the learners once more to the scene and give them a sense of accomplishment in understanding the scene completely without help.

In this step, the students watched the scene for the fifth time without subtitles or additional explanations given. They also had the option of clicking on the REPLAY button to watch the scene again or of clicking on the arrow to the left to go back to a previous step or the one on the right to go the next step.





Figure 8 and 9: A screen shot of step 5.

Step 6: Quiz (checking comprehension) and report page

a. Quiz design

The goal of the quiz was twofold: to close off a scene before moving to the next one and to help consolidate and entrench the expressions used in the scene. There were three types of questions in the quiz sections: (1) True/False questions, (2) Ordering questions (learners were asked to listen and re-order the jumbled phrases/sentences), and (3) Fill in the blank questions. These questions ranged in difficulty from simple, general questions to very specific questions and tested different linguistic skills (reading, listening and writing). The intention of the quiz sections was to ensure that different levels of learners were able to interact efficiently with the programme. The questions in the quiz sections were based on events or utterances that occurred in the movie segments. The quiz tested whether or not the learners were able to apply the input and explanations they had received to their linguistic output.

In the quiz screen, learners could see a pop-up window asking them to take the quiz. In the left side corner, a REVIEW button gave learners (especially those with low English proficiency) cues or hints from the movie segment. This allowed for effective scaffolding, thereby providing support for the completion of the task and facilitating the learning process. On the quiz screen, there was a question bar at the top which indicated the total number of questions. There was also a feature that enabled the students to reattempt or save the test if

they did not finish within the time allowed. Students were not required to obtain a set score before they could go on to the next scene; it was a form of scaffolding only.

Scene 4	Step 6 Quiz
	Step 8. Quiz
	Guestion 1 from 15 Chris asks Mary to pick up Christopher from day care.
	In Step 6, you will take a quiz to show you really understand a scene.
	If you need to, click REVIEW to watch and hear the scene again.
	Click <u>START</u> to begin the quiz.
	Click X to close the window.
8 ?	Off Scene 4 STEP 1 STEP 2 STEP 3 STEP 4 STEP 5 STEP 6
,	
	THE PURSUIT OF HAPPYNESS
and a second	Step 6: Quiz
Playlist2	00:36
D = 4	
	Queston 4 from 5
Choose t	he words/sentences that you did not hear in the movie scene that you just watched.
So 1	got to get Christopher home, feed him, bathe himget him in bed, and be back here by 7?
O Yes	
-	
O No.	
SUBMI	ANSWER

Figures 10 and 11: Screen shots of Step 6.



	Question 7 from 13	i
Lis	ten & Order 🚽	
+	I needed to sell at least two scanners a month for rent and daycare.	
+	The problem isI haven't sold any for a while.	
*	Maybe next quarter. It's possible.	(
+	Thanks anyway. Very much.	
*	I'd have to sell one moreto pay off all of those tickets under my windshield wiper.	
	1	

Figure 12 and 13: Screen shots of a quiz window (with question bar and timer).

b. Report Page (in the DUBp programme, the teacher gave the feedback)

In this section, learners were able to evaluate their own performance and get an insight into areas on which they did not perform as well as on other areas.

The report page was divided into two sections: the raw score and the results area. The raw score showed the grade of the student, calculated as a percentage. The results area displayed details such as individual point scores, the questions, the answers submitted by the student, and the right or wrong answers. The aim was for learners to get an insight into whether they truly understood the movie scenes.

No immediate feedback was provided for learners while they were doing the quiz, to make sure that learners who suffered from anxiety were not negatively impacted by immediate feedback. If learners were not satisfied with their scores, they could retake the quiz as many times as they wished.



Figure 14: A screen shot of a report page. 4.3.2 DUBp Group

A PowerPoint-based multimedia instructional approach that provided authentic input through a movie that was based on a dynamic usage-based approach was devised for the DUBp group. This approach was pilot tested in Study 1 prior to it being used in the present study. A detailed explanation of the instructional materials and a detailed explanation of the pedagogical sequence adopted in presenting the instructional material to the DUBp students (the DUBp participants who participated in Study 2 were not the same participants who participated in Study 1) is given in 3.4.1.

4.3.3 tCLT Group

The tCLT group (the tCLT participants who participated in Study 2 were not the same participants who participated in Study 1) took the course conducted by the Faculty for the first-year, second-semester students. As such, they used the course materials that were specially designed for the undergraduates of the Faculty, based broadly on the communicative language teaching approach: the Business Communication Book II. The course was designed to develop the students' skills in reading, writing, speaking, listening, grammar, and vocabulary (see Appendix F for contents page of Business Communication II). The students were expected, at the end of the course, to be able to participate in business meetings, confidently and effectively; communicate effectively in a variety of situations; take notes on the basis of auditory texts; read and respond to texts for a variety of purposes; write short formal texts and business letters; and give brief presentations.

The principles of course design, the method of delivery, the evaluation criteria, and course duration of Business Communication II are similar to that of Business Communication I (for details see 3.4.2). Both Business Communication I and Business Communication II are credit courses. The only difference is that Business Communication I, which is conducted in the first semester of the first year, broadly corresponds to Band 5 of the Common European Framework of Reference for Languages (CEFR), and Business Communication II, which is conducted in the second semester of the first year, corresponds to Band 6 of the CEFR.

4.4 Method

4.4.1 Learner Participants

7 intact classes of students, comprising in total 228 registered students of the Faculty, participated in Study 2, which took place in the second semester of the academic year 2011/2012. These 7 intact classes were assigned randomly to three conditions: 3 intact classes of 100 students in total to DUBp, 3 intact classes of 73 students in total to tCLT, and one intact class of 55 students to DUBc. However, at the data analysis stage, 10 participants from the DUBp condition and one each from the tCLT and DUBc conditions were excluded from the quantitative analyses of the general English test because they had either not written their names clearly on the test paper or had not taken one of the general English proficiency tests (either the pre-test or the post-test). With regard to written feedback, data of 6 respondents of the DUBp condition and 4 of the DUBc condition were eliminated from the analysis due to reasons of illegible handwriting, leaving ninety four (94) texts of the DUBp and fifty one (51) texts of the DUBc respondents for quantification (Written feedback of tCLT participants were not available for analysis due to an omission on the part of the researcher to instruct the tCLT teachers to obtain written feedback from the participants. This was, however, not very crucial because what the researcher was primarily interested in was to see how methods that were radically different (i.e. DUBp and DUBc) from what the participants were used to (tCLT) still worked well and how the participants viewed these methods).

Table 4.2 gives an overview of the three instructional groups, the measures administered to the respective groups, and the number of students taking the respective tests.

Table 4.2: An overview of the three instructional groups, the instruments administered to the respective groups and the respective number of participants

Condition	Pre-intervention	Participants	Post-intervention	Participants
	instruments		instruments	
		Ν		Ν
DUBp	GEP*	90	GEP	90
			Written Feedback**	94
tCI T	GEP	72	GEP	72
DUBc	GEP	54	GEP	54
			Written Feedback	51

*General English Proficiency

** Learners' views (in writing) on the instructional programme

4.4.2 Teacher Participants

In addition to the student participants, the researcher sought the assistance of nine female tutors, all of whom were affiliated to the Business Communication Unit of the Faculty and one male instructor/computer technician, who was affiliated to the Information Technology Resource Centre of the Faculty. The nine tutors and the instructor were graduates, whose average age was thirty years. They were all experienced in their respective areas of expertise, either in teaching English as a second language at tertiary level, or in computer science.

Even though the researcher had originally planned to control for teachers in the sense of getting the same teacher to teach both a DUBp and a tCLT group, it proved impossible to do so due to organizational constraints imposed by the Faculty. Hence, six different tutors taught the three DUBp and the tCLT groups. These teachers are tutors affiliated to the Business Communication Unit of the Faculty, and they taught the DUBp and tCLT groups as part of their regular teaching load.

Three teachers (one of whom actually taught one of the classes used in the experiment and two other volunteers), the computer technician, and the researcher were present in the computer lab to assist the DUBc participants in case they needed any technical assistance. Most students in Sri Lanka are quite knowledgeable about computers; nevertheless, the researcher sought the assistance of the teachers and the computer technician (just in case students needed it) to avoid problems of a technical nature.

The three tutors and the computer technician were also given a briefing on the design features of the self-instructional material-centered multimedia computer programme and about the basic principles underlying a dynamic usage-based approach. Since the course consisted of self-learning educational material, the teacher participants were asked to only give technical support to the students and refrain from content-related instructions (see 3.6).

4.4.3 Measures

The study measures for Study 2 were (1) pre- and post-general English proficiency (GEP) and writing (the writing component was included as part 10 of the general English proficiency paper but was scored separately and (2) written feedback (WF) from DUBc and DUBp participants see 4.4.1). The measures for Study 2 were thus identical to those pre-tested and validated in Study 1, with the only exception of the written feedback component (2).

The GEP pre and post-tests were administered to participants of all three conditions: DUBp, tCLT, and DUBc. The GEP test assessed the participants' performance on the two main variables: The general English proficiency and their writing performance. The general English proficiency test consisted of nine parts (see Table 3.2) and included components of vocabulary, grammar, pronunciation, reading, cloze, dialogue matching, and listening. There were 68 items in total. The writing test consisted of a writing task. This test was included in as Part 10 of the GEP test paper. The topics that were given for the writing task were *My best friend, The most unforgettable day in my life, My goals and dreams for the future, My hometown.* The same test paper was administered before the start of the experiment and at the end of the experiment. See Hong (2013) and section 3.5.3.1 of the current dissertation for more specific details of the general English proficiency test paper.

Participants were asked to provide their written feedback (views) at the end of the intervention - in either Sinhala, Tamil, or English - on the strengths and weaknesses of the intervention they had received and thus to evaluate the DUBc and DUBp programmes. There was neither a time limit nor a word limit imposed. Students were requested to provide anonymous feedback and were given the assurance that their feedback would only be used for

the purpose of the research, the ultimate objective of which was to develop the English Courses conducted by the Faculty and would in no way impact their grade (Huba & Freed, 2000).

4.4.4 Procedures

The study commenced on May 19, 2013, the first day of the second semester of the academic year 2011/2012 (Lectures for semester 2 of the academic year 2011/2012 were conducted in 2013 because lectures for semester 1 continued after the 20 week break until December 2012). It should also be noted that in Sri Lanka universities are not closed for summer vacation. Usually, students are instead given a short vacation at the end of each semester). In collecting the data, the sequence used in Study 1 in terms of administration of instruments was closely followed in order to be as uniform as possible across the two studies.

The DUBc, DUBp, and tCLT groups were allocated the same amount of course time, which was thirteen weeks (fifty two hours in all), and data were collected in two stages: Before the commencement of the intervention and upon completion of the intervention. In other words, the study consisted of a pre-test-post-test design. The DUBc, DUBp, tCLT, groups received the same amount of course time and were bound by the same course and examination criteria. The only factor that was different was the type of intervention they received. The DUBc, DUBp, and tCLT groups that followed the respective courses (see above) met two days a week for two hours each day during the course of the semester. Even though DUBc students were allocated the same amount of course time as the DUBp and tCLT groups, the students differed in the number of hours they took to complete the 34 modules (corresponding to 34 scenes) of the self-instructional material-centered multimedia computer programme. Hours of participation ranged from ten hours to twenty hours. The DUBc participants deviated in their hours of participation because they were given a selfpaced learning paradigm. All DUBc students, who were given a self-paced learning paradigm, managed to complete all 34 modules (corresponding to 34 scenes) of the programme. However, this discrepancy in time spent on the materials was not considered to be problematic, as previous research has indicated that there is no correlation between the actual time students engaged in the course/instruction and their ultimate achievement. Instructional quality appears to have a much greater effect on achievement than do total hours of instructional time (Verspoor & Winitz, 1997).

The procedure adopted in collecting data from the DUBp and tCLT groups was similar to that adopted in Study 1 (see 3.5.4. for a detailed description of this process. In this study, unlike Study 1 where informal discussions were held with the participants, no discussions followed the administration of the research measures.

With regard to DUBc, the instructions given to the participants differed in that this group was given a presentation of the self-instructional material-centered multimedia computer programme using a projection screen, in a language laboratory that consisted of sixty computers (the demonstration was given by the researcher). Then, the researcher gave a demonstration of how to navigate the programme emphasizing its key features. Next, the students were guided through the first module/lesson that was based on the movie trailer, giving them the opportunity to learn-by-doing. The students were also informed that the programme had been created for self-paced independent learning.

The process of administering the study measures also differed, for the postintervention measures could not be administered all at once to the participants. This was because the students differed in the number of hours that they took to complete the 34 modules. Hence, the test instruments--the post-test, the questionnaire--and the written feedback were administered as and when the students completed the special intervention. The schedule of data collection is given in Table 4.4 below.

Group	Class	GEP	GEP	Written feedback
	Schedule	Pre-test	Post-test date	date
		date		
DUBp	Monday-	-	12/08/13	12/08/13
	10 a.m. to			
	12.00 noon.			
	Wednesday	22/05/12		
	10 a.m. to	22/05/15		
	12.00 noon.			
tCLT	Monday	20/05/13	12/08/13	
	10.00 a.m.to			
	12.00 noon.			
DUBc	Wednesday	22/05/13	As and when students finished the	As and when students
	10.00 a.m. to		intervention-	finished the
	12 noon		From 1/07/13 to 29/07/13	intervention-
				From 1/07/13 to
				29/07/13

Table 4.4: Schedule of data collection

With regard to the scoring of general English proficiency pre and post-tests and the rating of the writing samples, the procedure followed was the same as that underlying Study 1. The general English proficiency test consisted of 69 items. It was an objective test and the sole scorer was the researcher. In giving scores, each correct answer was given a 1 (one) and each wrong answer was given a 0 (zero). The listening component of the GEP test was coded in a way that each blank was counted as one item. The 432 texts written by the 216 participants at the pre-test and the post-test were rated and analyzed separately by the same four independent raters and different raters than those who analysed the writing samples of Study 1. This was done on the assumption that the writing score (the mean score of the four raters) would not have any effect on the total score of the general English proficiency test. See section 3.5.3.1 for a description of the scoring procedure of the general English proficiency tests and for details of the rating and analyses of the writing samples.

The written comments obtained from the DUBp and DUBc participants at the end of their respective intervention programmes were quantified. Prior to this quantification of the written feedback of the DUBp and DUBc participants, the parts of the text that were written in Sinhala of eight DUBp and fifteen DUBc respondents were translated from Sinhala into English by the researcher. The texts were then computer typed exactly as the students had written them using double spacing with a wide margin and given identification numbers.

The 145 (94 DUBp and 51 DUBc) written comments of the DUBp and DUBc respondents were coded (Strauss & Corbin, 1990) by two independent coders. The coders were the researcher (coder A) and an experienced second language teacher (coder B), who was not involved in the research in any respect. Coder B was only told that the texts were written feedback pieces obtained from the participants who took part in the investigation. She neither was told nor was aware of the different treatments that the students had been exposed to.

The coders first had a discussion on how they were going to do the coding. It was decided to initially conduct a thematic content analysis and identify the themes/categories that emerged and then label them before quantification for statistical analysis and qualitative interpretation. Only themes pertaining to the intervention provided were coded.

First, the two independent coders did a content analysis by reading the data several times. This was done for two reasons: to understand the data and to identify differences and consistencies. While reading, the coders marked the data by themes by colour coding them and made notes in the margin. This way it was easier to identify the key themes and the sub themes. Then, a careful check was done for overlapping or similar categories and all duplications were eliminated.

The content analysis thus conducted demonstrated that students have varied views on the instructional approach. These views incorporated both positive and negative notions relating to the approach. The themes that emerged were organised under positive and negative category headers and subsequently given labels.

Eventually, the two coders, in unison, carefully examined the lists they had made. In case of inconsistencies, the two coders discussed over Skype (Coder B was in Sri Lanka and Coder A was in the Netherlands at the time of coding) and came to a compromise after verification of the original text. Some of the items had to be either relabelled or excluded after negotiation. Finally, after checking all of the sections of the data under each category, a

reduced list of 33 variables with 15 variables denoting negative notions and 18 denoting positive notions was drawn up (see Table 4.10).

4.5 Data analysis

R 2.10 and the Statistical Package for Social Science (SPSS) Version 16.0 were used for the analyses.

Initially, before subjecting the data set to analyses, Cronbach's Alpha reliability analyses were performed to ensure that the general English proficiency pre and post-test scores showed internal consistency.

Next, a Pearson's product-moment correlation was computed to assess the relationship between the pre-test and post-test scores of the general English proficiency and writing. Then, a One-Way ANOVA was computed on the pre-test scores of the three conditions to examine if there were differences in the means of DUBp, tCLT, and DUBc conditions at the outset of the study.

Since the research design used one independent variable with three levels and in order to take into account the systematic variability linked to the random-effect factors of the experiment (variability associated with each participant, question, group--there were three DUBp, three tCLT, and three DUBc groups--and 4 writing raters), the data were log– transformed, and a mixed-effects regression model using R software (Bates, 2007; cf. Baayen, Davidson, & Bates, 2008, p. 391). R is an open source language and environment for statistical computing (R development core team, 2007) was and was thus used for the analyses of general English proficiency and writing.

An alpha level of .05 was used for all statistical analyses.

4.5.1 General English Proficiency

The data were loaded into R and then the data were rearranged to have 1 row for one subject and 1 question to determine the performance at individual questions (items), with (model <-glmer (Correct ~ Test + (1|Subject) + (1|Group) + (1|Question).

Before the data were subjected to contrast analyses, a test was performed with (model1 <- glmer (Correct ~ Test*Condition +(1|Subject) + (1|Group) + (1|Question) to test whether any of the conditions significantly deviated from the others (from the outset). The

outcome of the analysis revealed there was no difference between conditions comparing preand post-test, but the participants of the DUBc condition showed greater improvement in the post-test than the participants of the DUBp and tCLT conditions. Hence, the DUBc condition was distinguished from the DUBp and tCLT conditions and subsequent contrast analyses were performed for the DUBc condition versus the DUBp and tCLT conditions.

The GEP data were then analysed using the generalized linear mixed - effects regression modeling fit by maximum likelihood [glmerMod'] with participants (n=216), questions (68 general English proficiency test items), and groups (there were three DUBp groups, three tCLT groups, and one DUBc group--seven groups of participants in total) as crossed, independent, random-effects factors (the random intercepts for group, subject, and question and the variability, in relation to each other, of the participants, the questions, and the groups were taken into account and were allowed to be different). The necessary random slopes (which significantly improved the model) used were as follows:

- a random slope of pre versus post-test per subject: some subjects showed more of a progression than others.
- a random slope of pre versus post-test per question: some question had a bigger chance of leading to good scores than others.
- a random slope of pre versus post-test in interaction with DUBc: how much the DUBc deviated in how much they progressed (vis-a-vis the other conditions) varies per question.
- a random slope for gender: the difference in performance between male and female students differs per question.

The three conditions (DUBp, tCLT, and DUBc) and the general English proficiency test pretest scores constituted the fixed effects factors. The dependent variable was the difference between the post-test GEP score (the l score obtained for each item) and the GEP pre-test score.

4.5.2 Writing

With regard to the writing component of the pre-test and post-test, the linear mixed-effects model ['lmerMod] was fitted by restricted maximum likelihood estimation [REML], taking

into account variability associated with participants, groups (there were three DUBp groups, three tCLT groups, and one DUBc group), and the four raters of the writing texts. The dependent variable was the mean writing score (i.e. the average of the scores given by the four raters was considered for analysis), which depended on the fixed effects parameter (main effect), the writing post-test.

4.5.3 Written Feedback

For analysis using SPSS 16.0, the written feedback data that were obtained from the DUBc and DUBp participants were first turned into a matrix where the rows were the units of analysis (the respondents or the individual students who provided feedback. The respondents were assigned numbers 1, 2, 3....), the columns were the variables (the themes that emerged), and the cells were the values for each unit of analysis (respondents) on each variable (Bernard, 1996, p 10). The presence of a theme on each comment was coded as "1" and the absence of a theme on each comment was coded as "0". The sum total of the variables that denoted negative and positive comments was obtained and the difference between the two variables was considered the dependent variable for the test of significance.

4.6 Results

4.6.1 English Language Proficiency and Writing Performance

Before the data set was subjected to statistical analysis, the general English proficiency pretest scores of the participants were inspected to determine if they were at the same level of English proficiency at the beginning of the study. For this purpose a one-way ANOVA was conducted on the pre-test GEP and writing scores. Table 4.5 presents minimum, maximum, mean, and standard deviation of GEP and writing performance (pre-test) measures by condition.

Measures	Ν	Minimum	Maximum	Mean	Std. Deviation
Pre-test GEP DUBc	54	24.00	61.00	43.31	8.39
Pre-test GEP DUBp	90	21.00	60.00	43.92	8.82
Pre-test GEP tCLT	72	17.00	61.00	42.92	10.88
Pre-test writing DUBc	54	1.50	4.00	2.83	.63
Pre-test writing DUBp	90	1.75	6.25	3.25	.79
Pre-test writing tCLT	72	1.50	4.75	3.02	.73

Table 4.5: Minimum, maximum, mean, and standard deviation of GEP and writing performance (pre-test) measures by condition

The results of the one-way ANOVA indicated that there were no statistically significant differences in the GEP pre-test variable between the means of the DUBc, DUBp, and tCLT conditions, F(2,213) = .232, p=.79.

However, with regard to the writing pre-test variable, there were statistically significantly differences between the three conditions, F (2,213) =5.5, p < .005. A Bonferroni posthoc procedure revealed that of the three groups (DUBc, DUBp, and tCLT), the 'worst' group (i.e. the group that scored significantly lower on the writing task in the pre-test) was in fact the DUBc group.

The box plot below (Figure 4.1) graphically depicts the differences in distribution between the three conditions: DUBp, tCLT, DUBc on the writing test.



Figure 4.1: Differences in distribution between the three conditions: DUBp, tCLT, DUBc on the writing test

4.6.2 Effects of Instructions on DUBp, tCLT, and DUBc Participants

4.6.2.1 GEP

There was a positive correlation between the pre-test and post-test scores, r=.711, n=216, p<.001(two tailed). Overall, there was a strong, positive correlation between the two variables.

The pre-test and post-test measures proved to be acceptable with a Cronbach's alpha coefficient of 0.88 and 0.87 for the sixty-eight variables of the pre-test and post-test respectively, indicating that the variables were internally consistent. Examination of items indicated that all sixty-eight items made reasonable contributions to the scale.

Table 4.8 below presents the final generalized mixed-effects regression (GLMER) model for the analysis of general English proficiency variable in which the performance at each item (question) for groups, and the three conditions (DUBc, DUBp, and tCLT) were included. The model reveals that all participants across conditions (DUBc, DUBp, and tCLT) performed better on the post-test than on the pre-test (β = .73, z=8.39, p < 2e -16). The model further signifies that there was no statistically significant difference between the pre-test

scores of the participants of the DUBp and tCLT conditions in comparison to the participants of the DUBc condition (β = 0.08, z=0.18, p= .85). Interestingly, however, the results indicate a significant interaction between the post-test and DUBc condition, suggesting that the improvement on the post-test (from pre-test to post-test) for the DUBc condition was significantly greater (β =0.359, z =2.55, p<0.05) than for DUBp and tCLT) conditions.

Table 4.6: Generalized linear mixed-effects regression model predicting the probability (in terms of logits) of the performance of participants in general English proficiency

Fixed effects:	Estimate	Std.	z	Pr(> z)
		Error	value	
(Intercept)	0.60287	0.25384	2.375	<0.05
Post-test (as opposed to pre-test)	0.72969	0.08695	8.392	< 0.01
Is DUBc	0.08401	0.44708	0.188	> 0.05
(i.e. is there a difference between DUBc				
in the general English pre-test in relation to				
DUBp and tCLT groups?)				
Post tostilo DUPo	0.25075	0 4 4 0 7 0	0 EEE	<0.0E
Post-test.is DOBC	0.35975	0.14078	2.555	<0.05
(i.e. is there a difference between DUBc				
in relation to DUBp and tCLT groups				
in the general English post-test?)				

A z-value >= 2 in the summary of the model(R analyses) indicates that the predictor is significant (p < 0.05)

Figure 4.2 below illustrates the significant improvement of the DUBc (referred to as EC) participants on the general English proficiency post-test in comparison to the DUBp and tCLT participants (referred to as other).



Figure 4.2: The improvement of the DUBc participants (EC) on the general English proficiency post-test

4.6.2.2 Writing

A Pearson product-moment correlation coefficient between pre-test writing and post-test writing revealed that there was a positive correlation between the pre-test and post-test scores, r=.652, n=216, p<.001(two tailed).

The interrater reliability of the pre writing test was ICC (2, 4) = .74 and post-writing test was ICC (2, 4) = .69.

With regard to writing test, the linear mixed-effects model ['lmerMod] was fitted by restricted maximum likelihood estimation [REML] taking into account variability associated with subjects, groups(there were three DUBp, three tCLT, and on DUBc groups), and 4 the raters of the writing samples of the participants.

Table 4.9 below presents the final linear mixed-effects model ['lmerMod] that was fitted by restricted maximum likelihood estimation [REML] for the analysis of the writing performance.

The model shows the estimates for intercept and contrast coefficient for Gender and Post-test.

For each coefficient, its Standard Error and t Value are listed. The model reveals that all participants across conditions (DUBp, tCLT, and DUBc) performed significantly better on the post-test than on the pre-test (β = 0.45, t=3.47). However, the DUBc participants who scored significantly lower than the DUBp and tCLT participants on the writing pre-test had in fact shown a greater improvement because they performed as well as the DUBp and tCLT participants on the post-test. With regard to DUBp, tCLT, and DUBc conditions, the model did not show any effect of condition by itself or in interaction with the other predictors.

Table 4.7: A summary of the restricted maximum likelihood (REML) model predicting the probability (in terms of logits) of the performance of participants in the writing test

Fixed effects	Estimate	Std.	t value	Р
		Error		value
(Intercept)	2.81395	0.19079	14.749	<0.01
Test POST	0.45180	0.13027	3.468	<0.01
(Post-test writing performance of the				
participants in DUBc, DUBp, and tCLT				
groups as opposed to the pre-test				
performance of the same participants)				

A t-value >= 2 in the summary of the model(R analyses) indicates that the predictor is significant (p < 0.05)

4.6.2.3 Students' feedback

As a measure of students' perception of the intervention they were exposed to, the DUBc and DUBp participants were asked to define their views, in writing, in English, Sinhala, or Tamil. Data of four respondents of the DUBc group and five respondents of the DUBp group were eliminated from analysis because their handwriting was not legible, leaving 51 texts of the DUBc participants and 94 texts of the DUBp participants for quantification and analysis. The number of participants that provided written feedback and the positive and negative themes that emerged are given in the tables below.

	DUBc -51		DUBp -94	
Skill(s) Missing	Frequency	Percentage	Frequency	Percentage
Need grammar	1	2	30	32
Need exam practice	0	0	15	16
Need focus on grammar and writing	0	0	15	16
Need writing practice	0	0	5	5
Need other skills than listening	0	0	2	2
Need speaking practice	16	31	3	3
Total	17	33	70	74

Table 4.8 Negative remarks on languages skills that have not received enough attention

The DUBp group pointed out that grammar and writing practice was missing. The DUBc group only seemed to miss speaking practice.

	DUBc -51		DUBp -94	
Skills (well developed)	Frequency	Percentage	Frequency	Percentage
Helps improve spoken English	6	12	27	29
Helps improve listening	10	20	26	28
Helps improve vocabulary	4	8	24	25
Helps improve pronunciation	2	4	13	14
Helps English overall	0	0	9	10
Helps improve reading	6	12	9	10
Helps improve writing	5	10	8	9
Helps develop presentation skills	1	2	3	3
Total	34	68	119	128

Table 4.9: Positive remarks about language skills that are well developed in the programme

The DUBp group pointed out more often than the DUBc group that specific skills were well-addressed, especially speaking and listening, vocabulary and pronunciation. The

DUBc group mentioned these skills less often on the whole but did mention spoken English and listening skills more than the other skills.

	DUBc-51	· · · · ·	DUBp-94	
Overall impression positive	Frequency	Percentage	Frequency	Percentage
Useful method	42	82	35	37
Engaging/Interesting	22	43	28	30
Better than textbook	5	10	6	6
Easy to learn	12	24	0	0
Can work at own pace	9	18	0	0
Continue the program	7	14	0	0
Low pressure	1	2	1	1
Not shy to learn	1	2	0	0
Helps develop personality	0	0	4	4
Total	99	195	74	78

Table 4.10: Positive remarks made about the programme as a whole

The DUBp group pointed out less often than the DUBc group that the programme was useful and interesting, and provided fewer remarks about the programme as a whole. The DUBc group mentioned with an overwhelming majority that the method was useful. They also pointed out more often than the DUBp group that the method was engaging and easy to learn. About 18% pointed out the advantage of working at one's own pace.

	DUBc-51		DUBp-94	
Overall impression negative	Frequency	Percentage	Frequency	Percentage
Too much repetition	0	0	21	22
Does not match course manual	0	0	12	13
Not completely useful	0	0	6	6
Too advanced	0	0	3	3
	0	0	42	44
Total				

Table 4.11: Negative remarks made about the programme as a whole

The DUBp group pointed out more often than the DUBc group that the programme was repetitive and failed to match the course manual. The DUBc group had no such negative remarks.

Table 4.12: Negative remarks made about specific parts in the programme

	DUBc-51		DUBp-94		
Other	Frequency	Percentage	Frequency	Percentage	
Cannot check correct answer	2	4	0	0	
Want teacher also	4	8	0	0	
Want translation	2	4	0	0	
Need training in computer	1	2	0	0	
	9	18	0	0	
Total					

The DUBc group mentioned a few things that were especially relevant for the computer programme itself. 2 participants expressed that they could not check their answers; 2 requested that translation (probably of the text) be provided; and 1 mentioned that s/he needed more computer training. 4 students mentioned that they also wanted a teacher.

See Appendix G for examples of comments made by respondents with regard to the general approach of teaching. Please note that all spelling and grammatical errors in the examples are those of the students, and the names of the students have all been changed to numerical codes to ensure their anonymity.

The written feedback data of the DUBc and DUBp participants were also subjected to quantitative analyses. The data consisted of both positive and negative variables (comments made) of the participants. An analysis of the negative and positive variables is shown below in table 4.13. A close examination of the mean scores indicates that the participants, in general, were more positive than negative of the two approaches. With an overall mean score of 2.65 (positive comments), the DUBc participants were more positive than the DUBp participants whose overall mean score was 2.05. Table 4.13 gives the mean scores and standard deviations of the negative and positive variables of the DUBp and DUBc conditions.

Table 4.13: Means and Standard Deviations of the difference between the positive and negative comments

	Condition	Ν	Mean	Std. Deviation
Sum positive minus	DUBp	94	.73	2.38
negative comments				
	DUBc	51	2.14	1.34

A box plot (figure 4.6) shows the difference between the two groups (DUBp and tCLT) with regard to the positive and negative comments expressed. The participants of the DUBc condition were much more positive than the DUBp participants of the intervention they had undergone.


Figure 4.6: By condition difference between the positive and negative comments

An independent-samples t-test was conducted to examine if the difference between the two conditions was significant. The independent-samples t-test revealed that there was a significant difference between the DUBp (M=.73, SD=2.38) and DUBc (M=2.14, SD= 1.34) conditions, t (143) =-4.5, p<.000.

Figure 4.7 illustrates the difference in mean score between the DUBp and DUBc condition.



Figure 4.7: The difference in mean score between the DUBp and DUBc conditions.

4.7 Discussion and Conclusion

The study described in this chapter investigated the effect of three different interventions on the general English language proficiency of 216 undergraduates. The research set out to find answers to three questions:

The first question that Study 2 explored was if a dynamic usage-based approach when delivered through a self-instructional material-centered multimedia computer programme in which students work mostly individually and at their own pace (DUBc) is as effective as either a dynamic usage-based approach delivered through a PowerPoint based multimedia (DUBp) programme in which a teacher is in control of the mode of delivery or the regular communicative language teaching (tCLT) programme.

The results showed that the difference between the GEP pre-test and post-test of the DUBc condition differed significantly from the DUBp and tCLT conditions: the DUBc were in fact the students with the most substantial learning gains. This confirms the affordance of computer-based language learning in an independent self-paced learning environment. Offering students control over their learning, empowering them through allowing non-linear access to the materials, offering feedback through practice exercises within each learning module, providing the opportunity for more equal participation (classrooms, for instance, are generally made up of students at different developmental stages) in an anxiety-free private learning environment probably have contributed to the positive results.

The results obtained for writing, where the DUBc participants performed equally well as the DUBp and tCLT groups and much better on the post-test than on the pre-test (the writing performance of the DUBc participants was significantly lower than that of the DUBp and tCLT participants on the pre-test but was almost the same on the post-test, indicating that the DUBc participants had significantly improved from the pre-test to the post-test) signifies that writing practice (as in the tCLT classes) does not necessarily lead to higher writing scores. Apparently the same can be achieved through other methods that do not necessarily focus on writing themselves.

The second question that Study 2 wanted to answer was how the students exposed to a dynamic usage-based approach to second language teaching felt about their respective programmes.

About 2/3rd of the DUBp students felt that some skill or focus was missing; they were especially worried about a lack of grammar and exam practice. The DUBc students hardly mentioned any skills that were lacking. This is a surprising difference and the reason could be that the DUBp teachers inadvertently mentioned negative points about the programme as they were worried that it might not work to prepare students for the exam. At the same time, the DUBp students also pointed out more specific skills that were amply dealt with in the programme, such as speaking and listening, vocabulary and pronunciation. We may conclude that the DUBp students were more aware of specific language skills that were practiced or not. The DUBc students only mentioned that they missed speaking skills.

Whereas the DUBp group points out specific skills that were or were not addressed, the DUBc group makes relatively more general remarks about the programme as a whole.

With an overwhelming number of 80%, they find the programme useful and interesting. They also point out more often than the DUBp group that the method is engaging and easy to learn. About 18% point out the advantage of working at one's own pace. The fact that the DUBc students focus more on the programme as a whole and less on specific skills could be due to experiencing the language taught more holistically. Again, this focus on the programme as a whole rather than on specific sub-skills and the exam could of course be due to what teachers in the DUBp programme have said inadvertently to their students as the materials and approach were the same. However, if we also take into account that 20% of the DUBp students found the programme repetitive and 18% of the DUBc students mentioned the self-paced learning, we may carefully conclude that self-paced learning allows the student to focus on what he or she needs at a particular time and is less dependent on what the teacher finds important to point out at a particular time.

Finally, the DUBc group mentioned a few things that are especially relevant for the computer programme itself. A very low number pointed out that they wished to have their answers checked or a translation provided and four students mentioned that they also wanted a teacher. This method constitutes quite a change for the Sri Lankan students, away from the teacher-centered large classroom situations they had so got used to. This may well be what is reflected in these answers.

The quantitative analysis of positive and negative remarks shows that the DUBc students are significantly more positive than the DUBp students, but a few recommendations that the students made should be taken seriously. It may also be expected that this radically different approach takes time to get used to.

Considering the fact that the DUBc students performed significantly better than the DUBp and tCLT participants on the GEP test and on post-test writing than on pre-test writing suggests that the self-instructional material-centered multimedia computer programme should be continued. However, it could be adapted to meet the requests of the students. The programme could be expanded with pronunciation and speaking practice, or complemented with group discussions among the students.

Finally, the conclusion arrived at is that even though the computer based experimental instructional method has some restraints, it has been able to achieve its desired outcome to a great extent and will be beneficial to the Faculty of Management Studies and Commerce where it is difficult to recruit qualified teachers and where oversized and heterogeneous

groups of students have become an issue (see chapter 5 for an elaborate discussion of the findings).

Chapter 5 Discussion

This chapter discusses the findings of Study 1 in section 5.1 and the findings of Study 2 in section 5.2. These findings are discussed in relation to the existing literature of the field, outlined in chapter 2. An applied study like the current one brings with it many implications, both for future research, but most definitely also for teaching practices, both of which are discussed in this chapter.

5.1 Study 1

5.1.1 Synopsis of the Study

As mentioned in Chapter 3, Study 1 was a replication of Hong's (2013) study. The primary goal of this study was to test the research instrument, repeat the research procedure, and determine the feasibility of integrating a dynamic usage-based approach into an independent learning computer programme, most specifically within a Sri Lankan context.

5.1.2 Summary and Interpretation of the Result

As stated in Chapter 3, three major findings are evident in this initial study: First, the results revealed that the general English and writing proficiency of the participants of Study 1 were markedly higher than that of Hong's (2013) participants. The significant difference in English language proficiency between the two groups is also an indication that learners who are considered beginners at the Faculty of Management Studies and Commerce are in fact more proficient in general English and writing than the beginner-level students in Hong's study. Interpreting the finding from a dynamic usage-based perspective, the significant difference in general English proficiency may be attributed to variability (the change that occurs over time within a language learner) and variation (difference between language learners due to difference in initial conditions, learning contexts, and many other factors) between the two groups (Van Geert, 1994; Verspoor, Lowie, & Van Dijk, 2008). For instance, the learners' L1 (Hong's--Vietnamese; Study 1--Sinhala/Tamil) are grammatically and phonologically very

different; they are from different linguistic backgrounds and cultures; their educational systems, abilities, and language learning styles are different (it is a well-known fact that individual learners' learning styles are different from one another).

Second, both the findings and the discussions held with the participants after the implementation of each test indicated that the tests worked as intended and the researcher did not come across any potential practical problems in the implementation of the study measures or the procedure adopted in implementing them, for the procedure followed was the one validated by Hong (2013). In regard to the suitability of the experimental method, the method proved to be appropriate, with a slight alteration in the number of exposures to the movie scenes having to be implemented. Since the participants were more advanced than the participants of the previous study, in some instances they did not need 8 exposures to notice and to completely understand the utterances spoken by the characters. After approximately two class sessions, the participants, in general, managed to answer the general question with either three or two exposures to the movie scenes and were able to understand each scene completely (every single utterance by every character) with a maximum of five exposures. Hence, as suggested by Verspoor and Hong (2013), the frequency of exposure was modified depending on the speed of processing of the input by the participants to prevent any negative effects from too many exposures. However, it should be mentioned here that the speed of processing was judged by the response given by the participants to the general question and by asking the participants if they had understood the utterances in the movie segments.

Third, both conditions--DUBp and tCLT--were equally effective with respect to gains in general English proficiency and writing. The results revealed that a dynamic usage-based approach to second language teaching is as effective an approach as the standard CLT approach, for the outcome of the experiment reveals that there were no significant differences in gain scores in GEP and writing between the two conditions. In other words, the two instructional conditions are similar in effect. The within group results revealed that both the DUBp and tCLT participants significantly improved from the pre-test to the post-test in general English proficiency and writing.

These findings were consistent with the findings of the study conducted by Verspoor and Winitz (1997), which revealed that there was no significant difference between a group that followed a pure listening comprehension approach and a group that had course work focusing on writing, reading, and speaking on the Michigan Test of English Language

Proficiency. Here too, explicit focus on the sub-skills did not result in better overall performance than a course mostly aimed at improving naturalistic listening skills.

However, these findings are not entirely in alignment with Hong's (2013) findings, who reported that her experimental students had significantly more self-confidence in using English and were as willing as the control students to communicate in English. Hong found that her experimental group gained significantly more than the control group in general proficiency while the findings of the current study did not reveal any difference between the DUBp and tCLT participants. There could be many possible reasons for the differences in the outcomes of Hong's investigation and the current studies. The English language proficiency of the participants of Hong's study was significantly lower than that of the participants of the current study to begin with and - therefore - as literature on second language learning indicates, language development of more advanced learners is not as rapid as that witnessed in beginner learners and moves in a slower, more subtle way, with periods of fewer and smaller fluctuations and gains in development (Rubin, 1975). Moreover, the context of the research was different. There were interruptions in the conduct of the current study due to a trade union action taken by the academics. This might have also influenced the outcome of the study although it is less evident how exactly this exerted an influence.

In addition, the DUBp participants were as willing to communicate in English and were as self-confident in using English as the tCLT participants were. The results of the within group analyses of the WTC in English indicated that there was a significant difference between the pre and post-intervention in the DUBp group but not in the tCLT group. This could probably be due to the anxiety-free learning environment and the interesting instructional materials based on movie segments, and multiple exposures to the comprehensible input.

The results of the within group analysis for SC revealed that there was no significant difference in the scores for either pre-post intervention in either group. With regard to SC, the results obtained may be due to the fact that the DUBp participants, unlike Hong's, may not have been developmentally ready to use the language with self-confidence.

With these outcomes in mind, the question arises as to why the experimental instructional approach (DUBp) should be considered at all if the current instructional approach (tCLT) is equally effective in developing the general English proficiency, writing, willingness to communicate in English, and self-confidence in using English. Although the findings reveal that the DUBp and tCLT teaching conditions are equally effective, the

practical implementation of the current communicative teaching approach, which focuses on practice and production in addition to input, can be quite challenging (giving constructive feedback on an individual basis, providing guided practice, and monitoring students' performance on a task be it a fluency or accuracy task) in large heterogeneous tCLT second language classes. On the other hand, implementing a dynamic usage-based perspective to second language teaching which focuses only on comprehensible input rather than on practice and production can be argued as more practical even in large heterogeneous classes. Moreover, this study looks at a relatively short time frame. Having already accomplished a similar result than the more traditional CLT approach is promising; it may well be that with more time being allowed for the method to become commonplace, the outcomes based on this method may surpass those obtained by means of the more traditional CLT approach.

Finally, the study assessed the feasibility of incorporating the instructional materials designed for the experimental DUBp intervention into a self-instructional material-centered multimedia computer programme for individualized self-paced learning. With regard to this, it can be assumed that the integration of a DUBp approach into a self-instructional material-centered multimedia computer programme that encourages individualised self-paced learning can be a solution to the problems of acute shortage of qualified experienced teachers and oversized second language classes. Since the DUBp participants performed as well as the tCLT participants in general English proficiency and writing, showed the same self-confidence in using English as the tCLT participants, and were significantly more willing to communicate in English (than the tCLT participants), integrating the learning materials based on the principles of a dynamic usage-based approach is considered viable.

Nevertheless, as mentioned above, the experimental instructional approach (DUBp) should be tried out and tested further before making a definitive comparison of the effect of either the CLT approach or a DUB approach on L2 learners' progress because the concepts proposed in a DUB approach were new and unfamiliar to the teachers and participants of the DUBp condition.

5.1.3 Implication of Study 1

Based on the findings, it is concluded that a dynamic usage-based approach through a PowerPoint based multimedia format with a movie divided into segments as the primary resource is effective enough to be transformed into a self-instructional material-centered

multimedia computer programme. The implication therefore would be to integrate a dynamic usage-based approach into a self-instructional material-centered multimedia computer programme and to investigate its effectiveness in relation to teacher-fronted instructions in the proposed main study. A self-instructional material-centered multimedia computer programme will help address issues faced by the Faculty such as teacher paucity, resulting in large classes, but most definitely also the heterogeneity within the classrooms of the Faculty. It is also hoped that a self-instructional material-centered multimedia computer programme will to some extent change classroom practice by helping to deal with issues such as reluctance of senior teachers in the Faculty to adopt technology based teaching (as mentioned in Chapter 3).

5.2 Study 2

5.2.1 Synopsis of the Study

The research reported in Study 2 attempted to seek answers to issues faced by the Faculty of Management Studies and Commerce such as the shortage of qualified English teachers and heterogeneous oversized language classrooms. A self-instructional material-centered multimedia computer programme was proposed as a potential solution on the assumption that it would simulate a teacher-directed classroom learning environment, deal with heterogeneous large classes through individualised self-paced learning, and would also be instrumental in improving the English language proficiency of the undergraduates of the Faculty with different abilities.

As mentioned in the previous chapters, the work that provided a theory base for the study is a dynamic usage-based approach. Although research from a dynamic usage-based perspective is not new in a second language context, the current investigation is the first study that has examined the effectiveness of such an approach in the Sri Lankan context. Moreover, this is the first study that explores the effectiveness of a self-instructional material-centered multimedia computer programme that is based on the principles of a dynamic usage based approach. The primary resource that was used to design the instructional materials was a movie that was segmented into one to two-minute segments. Movie segments were proposed as a viable resource for use in the DUB classroom because they not only provide scope for frequency of input (movie scenes can be repeated as many times as necessary) but they also

contain authentic dialogue and many opportunities for discussing semantic, pragmatic or cultural issues.

5.2.2 Summary of Results

As described in Chapter 4, three major findings are evident in this study. First, a strong, positive effect of instruction on general English proficiency was demonstrated for the DUBc group, who had undergone exposure to the computer intervention in an individual self-paced learning environment based on the tenets of a dynamic usage-based perspective. The DUBp and tCLT groups, whose treatment involved exposure to teacher- directed instructions based on a dynamic usage-based perspective and standard pedagogical instructions based on the current communicative language teaching approach respectively, experienced gains in general English language proficiency from pre-intervention to post intervention; however, this increase was not significant.

Second, the results of the writing performance revealed that all participants across conditions (DUBp, tCLT, and DUBc) performed significantly better on the post-test than on the pre-test. However, there was no effect of any of the conditions--DUBc, DUBp, or tCLT-by itself or in interaction with other predictors. This signifies that the DUBc participants performed as well as the DUBp and tCLT participant even though their writing proficiency was significantly lower than that of the participants of DUBp and tCLT conditions to begin with (DUBc participants scored significantly lower than the DUBp and tCLT participants on the writing pre-test writing).

Third, the participants of the DUBc groups were significantly more positive than the DUBp participants of the self-instructional material-centered multimedia computer programme concerning their perception of its utility and educational benefits.

Thus, in short, although all students had improved as a function of time, on the general proficiency test in particular, the DUBc students as a group appeared to have progressed more than the other two conditions. What can be the reason/s for the discrepancy in performance of the participants of the three conditions?

5.2.3 Interpreting the findings

5.2.3.1 General English proficiency

First and foremost, the reason for the difference in the outcome between DUBc group on the one hand and the DUBp and tCLT groups on the other in general English proficiency is likely attributable to the self-paced learning environment offered to the DUBc participants through the self-instructional material-centered multimedia computer programme. The DUBc participants were, unlike the DUBp and tCLT participants, in control over their own learning process and had, as suggested by Mayer (2001) and Craig, Gholson, and Driscoll (2002), the opportunity to choose the pace and path of the learning process and the learning content. By working at one's pace, DUBc learners might also have been able to adjust the "amount (working at one's own pace, for instance) and difficulty (through scaffolding, for example) of input" and avoid the danger of frustration they might otherwise have faced through "information overload" (Pennington, 1996, p. 9; cf. Kao & Windeatt, 2014, p. 4). Soyemi, Ogunvinka, and Sovemi (2011, p. 704) state that in a self-paced multimedia language learning programme low-ability learners can progress through the material at their own path and pace while high-ability learners can navigate through the lessons in a non-linear path and not follow the chronological pattern of lessons as a result of which "(...) two students might begin the course on the same day but one may finish days ahead of the other" thus making efficient use of the time spent on a particular module within the course (Soyemi, Ogunyinka, & Soyemi, 2011, p. 704), rather than having to conform to a pace set by a teacher or class structure. Control over learning might also have helped the DUBc participants to actively engage in the learning process (Evan & Gibbons, 2007) and "...master the learning objectives in significantly less time than students in group-paced instruction" (Dalton, Hannafin, & Hooper, 1989; Fletcher, 1996; cf. Dobrovolny, 2006, p. 55).

Second, the opportunity provided to the DUBc participants to interact on an individual basis with the learning materials (Anderson 2003; cf. Anderson, Annand, & Wark, 2005), and the availability of multimedia options that allowed interactional modifications (Chapelle, 2003, p. 40) opened up a number of possibilities not available to the other group, such as elaboration/description of vocabulary, phrase, or cultural background through instructional (Applebee & Langer, 1983) and visual scaffolding (Krashen, 1982; Herrell & Jordan, 2004). In addition, a number of other options were available to the DUBc

participants: confirmation of understanding by repeated listening or repeated viewing (cf. Larsen freeman, 1976; Ellis, 2002) of movie segments (Hong, 2013); facility to revisit the learning materials when needed; provision of textual help options by means of captions/subtitles (Mayer, 2001); and enhancement of the likelihood of noticing (Plass & Jones, 2005, p. 472) through the general question at the beginning and activities at the end of each lessons. This might all have attributed to the DUBc (and DUBp) participants' meaningful learning experience (Chapelle, 2003). Several studies have found evidence for enhanced learning outcomes in conditions that facilitated interactional modifications. For instance, in an interactive listening task for learners of L2 French, Borras and Lafayette (1994) found that learners with access to L1 (English) subtitles performed better than learners who did not have this option for interactional modification. The DUBp participants, on the other hand, despite being exposed to multimedia instructional materials with options for interactional modifications did not perform as well as the DUBc participants, probably because they either had limited or no opportunities to interact with the learning materials on an individual basis.

Third, the positive outcome could be attributed to the primacy of a dynamic usagebased perspective as the basis for the design of instructional materials of both DUBp and DUBc conditions. This finding is in alignment with the finding of the empirical study conducted by Verspoor and Winitz (1997), who concluded that it is possible for intermediate learners of English as a second language to improve their English vocabulary, grammar, and reading skills through an input-only approach that contains neither explicit nor implicit focus on form or forms. Linguists such as Krashen (1985) and Long (1996), also maintain that meaningful input is one of the most important factors in language development in general and in second language development (SLD) in particular. Furthermore, the input was provided in a holistic manner taking focus off skills (i.e. reading, writing, listening, speaking, grammar, and vocabulary were not taught as separate skills).

Fourth, the primary resource used in the preparation of the instructional materials of both DUBp and DUBc conditions was a movie divided into segments. The use of a movie divided into segments could also have been instrumental in bringing about the positive results. Authentic videos or movies have been reported to be beneficial in many ways: memory enhancement and recovery of information through mental representations of visuals and verbal forms (Anderson and Reder, 1979; Pezdek, Lehrer, & Simon, 1984; Mayer, 2002; Mayer & Moreno, 2002); utilization of both hemispheres of the brain and drawing on

multiple intelligences (Berk, 2009), contextual visualization of events, characters, narration, story, and word (Snyder & Colon, 1988); provision of interesting and motivating clues to accompany audio or written input (Hanley et al., 1995). Moreover, movie segments contain authentic dialogue (Stewart, 2006; Tatsuki, 2006; Schmitt, 2010) and provide frequent input, which also helps learners notice linguistic features that they may have missed in an earlier viewing. It may also help create many opportunities for discussion of the semantic nature of the language (Hong & Verspoor, 2013). This finding is consistent with the findings of Hong & Verspoor (2013), who also used movie segments as a primary resource to design their instructional materials for use in the DUB classroom and concluded the use of movie segments in teaching language as very effective.

Fifth, the use of movie captions (subtitles) might also have contributed to the results obtained. d'Ydewalle, Van Rensbergen, and Pollet (1987) showed by comparing a group of American subjects who were not familiar with watching movies with subtitles to a group of Dutch-speaking subjects who were familiar that reading subtitles while viewing a movie helped in following and understanding the movie better. Borras and Lafayette (1994) reported that advanced learners who viewed digital video with subtitles performed significantly better in comprehension and production. Guillory (1999) showed that subtitles can be beneficial for listening comprehension; and Sydorenko (2010) found that learners developed better formmeaning links with new vocabulary when video (and audio) was combined with subtitles or captions. Sydorenko's subjects had difficulty with the speed of the video and/or captions and the retention of a new word or expression (form-meaning link). In the current study, the DUBp participants might have encountered difficulties similar to those faced by Syndorenko's participants, but in a mitigated form as they were able to navigate easily through the instructional materials at their own pace. In addition, DUBc and DUBp participants might not have been negatively impacted from the effect of split-attention or cognitive overload because subtitles were presented or shown to the learners only after the learners viewed the movie segments and familiarized themselves with the visuals. Furthermore, subtitles were introduced to the DUBc learners in an integrated form next to the corresponding part of a visual (Chandler & Sweller, 1991; Chandler & Sweller, 1992; Mayer, 1989; Mayer, Steinhoff, Bower, & Mars, 1995; Moreno et al., 1999; Tindall-Ford et al., 1997; cf. Schmidt-Weigand, 2006, p. 14).

Sixth, the positive outcome might also be assigned to iteration (referred to as adding new input to an existing knowledge base) through multiple exposures to input in meaningful

real-life contexts (Hong 2013). Indeed, this might also have helped the DUBc and DUBp participants in general in internalizing the input presented as meaningful expressions and retrieving the expressions subsequently as single units (Ellis, 2002; Bybee, 2008; de Bot & Larsen-Freeman, 2011, p. 16).

Finally, the delivery of language instructions through appropriately designed learning materials (Chapelle, 2005, p. 587), which were based on validated pedagogical principles (Brydges et al., 2010), provision of training on how to use the software, and the creation of a conducive learning environment in which learners could be metacognitively, behaviourally, and motivationally active in their learning (2010, p. 649) may all have added up to result in the positive outcome.

5.2.3.2 Writing results

The results of the between groups analysis did not reveal a significant difference in the writing performance between the three groups--DUBp, tCLT, and DUBc, even though the tCLT students were given lessons in the four language skills (reading, writing, listening, and speech) including grammar and received guidance and feedback from teachers (neither of which took place in the DUBp and DUBc conditions). The results of the within group analysis for writing revealed that participants of all three conditions (DUBc, DUBp, and tCLT) performed significantly better on the post-test than on the pre-test. The fact that the DUBc participants, whose writing proficiency was significantly lower than the DUBp and tCLT participants to begin with (pre-test scores), improved significantly from pre-test to post-test and performed as well as the participants of the other two conditions (DUBp and tCLT) at the post-test suggests that writing success can be achieved even without explicit teacher-centered writing instructions. The DUBc participants received language instructions through a self-instructional material-centered computer programme in an individualised selfpaced learning environment where the learners were given a degree of control and were offered the opportunity to make informed decisions concerning the path and pace of their own learning. In addition, the use of a movie divided into segments as a primary resource for the designing of the learning materials might also have led to the development of writing proficiency of the DUBp and DUBc participants. Movies, according to Hanley et al. (1995), help develop writing skills through providing interesting and motivating clues to accompany

audio or written inputs, and in that way they assist comprehension and production of foreign or second language input/output.

Interpreting the findings from the perspective of dynamic systems theory, the significant improvement of both the DUBc and DUBp participants from writing pre-test to writing post-test could be attributed to the fact that language was presented in a holistic manner in sound-form-meaning combinations with no explicit writing instructions or focus on the development of the separate sub-systems--the lexical, the syntax, the semantic etc., for the sub-systems are "often interlinked on all possible levels" (Van Geert, 2003, p. 658)

Moreover, as a dynamic usage-based approach to second language teaching stipulates, providing the DUBc and DUBp participants with plenty of comprehensible input through a movie and "for the learner to abstract regularities from concrete exemplars of language use" (Zyzick, 2009, p. 14) and use them in sentences (Capsi, 2010) might also have helped them enhance their writing proficiency. These findings also support Krashen's (1982) claim that learners' productive ability will arise naturally from receptive knowledge, and specified that meaningful comprehension rather than focused production is all that is needed to facilitate language learning.

Finally, the fact that the tCLT participants did not outperform either the DUBc or the DUBp participants despite receiving teacher-centered explicit writing instructions (they completed a number of writing tasks and got guided practice with feedback from teachers) might be because they had to, as part of the learning process, produce the language. Verspoor & Hong (2013), in their study of the "input-only" approach, suggested that learners should only be provided with comprehensible input and not be forced to produce before they are ready. Van Patten, Williams, Rott, and Overstreet (2004, p. 42) also argued that there is "little if any experimental data that clearly show that acquisition is somehow output dependent". This point was already established a long time ago by Postovsky (1974), who found very positive effects when oral practice was delayed at the initial phase of instruction. This finding is to some extent consistent with the findings of a comprehension based instructional study conducted by Lightbown, Halter, White, and Horst (2002), where the researchers found that it took many years of guided instructions for students in the regular classroom to perform better in writing. The findings of Lightbown et al (2002) indicate that even guided instructions do not immediately lead to accuracy in the output.

5.2.2.3 Student feedback

As mentioned in chapter 3, the DUBp and DUBc participants, in general, were more positive than negative of the respective treatments they had undergone. However, the participants of the DUBc groups were significantly more positive of the self-instructional material-centered multimedia due to their perception of its utility and educational benefits than the DUBp participants.

Among the negative comments there were some striking differences between the DUBp and DUBc participants' reactions. Basically the two approaches were the same, with the same movie, amount of repetition and scaffolded explanations. However, the DUBp students were not at all convinced that the method was effective. The DUBp students wanted more grammar, more exam practice and less repetition. The DUBc did not make any such remarks. Although we cannot be certain, the negative comments from the DUBp students may have inadvertently been influenced by the teachers, who may not have been convinced themselves that the method would be effective. Moreover, the teachers may have stuck to the prescribed routine too much and repeated some scenes too often even though the students may have already understood them well enough.

The DUBc students' only negative comment was that they wanted more speaking practice. This makes sense, and we need to see if this can be addressed in the computer programme or rather with the aid of the computer programme.

In the positive comments there are also some striking differences. The DUBp students felt that the programme helped their spoken English, their listening, their pronunciation and overall English, points that the DUBc students did not even bring up. At the same time, the DUBc group found the course engaging, useful, an easy way to learn, especially because they could work at their own pace and recommended that the programme be continued. The fact that they were more positive also means they may have been more highly motivated and this in turn could have impacted their learning outcomes.

Considering the fact that the DUBc students actually performed better on the receptive GEP test suggests that the programme should be continued, but could be adapted to meet the requests of the students. The programme could be expanded with pronunciation and speaking activities. For example, the programme itself could be expanded with oral practice based on the actual dialogues in the movie, where they may repeat utterances (for pronunciation practice) or where they engage in actual conversations with the characters.

Another idea could be to have students have small group discussions based on the movie either online or in real. In line with the individual self-paced learning route set by the programme, however, it remains important that students are not forced to produce output before they are ready to do so. The programme should thus allow provisions for the students who are ready to produce, while other students can focus only on the input for a longer period of time.

Finally, the conclusion arrived at is that even though the computer based experimental instructional method has some limitations and constraints to be pondered upon, it has been able to achieve its desired outcome to a great extent and will be beneficial to the Faculty of Management Studies and Commerce, where it is difficult to recruit qualified teachers and where oversized and heterogeneous groups of students have become an issue.

5.2.4 Implications of Study 2

The study acknowledges the efficacy of the self-instructional material-centered multimedia computer programme based on the principles of a dynamic-usage based perspective in developing the English language proficiency of the first year undergraduates of the Faculty of Management Studies and Commerce at the University of Sri Jayewardenepura with varied levels of proficiency.

The results of this research support the idea that a dynamic usage-based selfinstructional material-centered multimedia computer programme can help overcome some of the restrictions that limit the effective delivery of second language instructions in teacherfronted classroom at the Faculty. These restrictions include a general dearth of qualified and experienced teachers, and oversized heterogeneous language classes. The results also suggests that the self-instructional material-centered multimedia computer programme can change classroom practice to some extent by helping address issues such as reluctance of senior teachers in the Faculty to adopt technology based teaching (as mentioned in chapter 3). Overall, this study strengthens the idea that the computer programme will offer the learner the opportunity to learn at their own pace and "afford [them] more appropriately individualized instruction than what can be achieved through classroom learning" (Chapelle, 2005, p. 78).

The results obtained have far-reaching practical pedagogical implications since they confirm the belief held by experts in the field of second language education that multiple exposure to authentic input leads to language development (Verspoor & Winitz, 1997; Rousse-Malpat & Verspoor, 2012; Verspoor & Hong, 2013), and that the self-instructional material-centered multimedia computer programme that is in line with the tenets of a dynamic-usage based theoretical perspective has to a great extent facilitated in attaining the course goals, for the general English performance of the DUBc participants was significantly better than that of the DUBp and tCLT groups, and the writing performance had significantly improved from pre-test to post-test.

In addition, the findings of the present study indicate that the undergraduates of the Faculty of Management Studies and Commerce were very positive about the language experience that they had undergone. The students' positive views pose a necessity for change in the mode of delivery of language instructions. The implication would be for second language teachers, educators, and syllabus designers to be sensitive to and recognize learners' views of the approaches adopted in delivering second language instructions because developing learners' English language proficiency can be easily achieved by providing the learners with a conducive learning environment.

5.3 **Recommendations for FMSC in General**

The Faculty of Management Studies and Commerce should reflect on the importance of integrating the theoretically sound and empirically tested self-instructional material-centered multimedia computer programme into the course curriculum as a viable alternative to a large heterogeneous teacher-fronted classroom. The newly installed multimedia language laboratory can be used for the effective integration of the computer programme into teaching.

This should be done gradually, in stages, beginning with the imparting of instructions on general English (receptive skills) and moving towards a more individualised self-paced design, one where instructions of both receptive and productive skills are delivered through self-instructional material centered multimedia computer programmes.

These sessions should take into consideration not only language learning beliefs but also meta cognitive knowledge about technology enhanced self-instructional materialcentered multimedia language learning. Brydges et al. (2010) also emphasized the significance of guiding learning. That is, students need not only to be taught how to take advantage of software features but they also need to be repeatedly reminded of how to use the software.

Although many students are quite knowledgeable vis-a-vis computer use, sufficient support should be provided to avoid problems of a technical nature. Thus, teachers too need to be given in-depth, sustained assistance not only in the use of the technology but in their effort to integrate the computer programme into the curriculum.

Workshops should also be conducted to enlighten the second language learners and teachers on the distinct advantages and the positive changes that a dynamic usage-based theoretical perspective and a dynamic usage-based self-instructional material centered multimedia computer programme could bring to the second language educational process.

Finally, it should be noted that CourseLab is an extremely adaptable CALL programme and can be used for different levels of learner proficiency, different films, and different cultural or linguistic requirements. It is suggested that similar computer programmes be developed for the other undergraduates (2nd, 3rd, and 4th years) of the Faculty.

Chapter 6 Conclusion

This chapter begins with a consolidation of research findings. Next, the limitations of the study are described. Finally, suggestions for future research, both in terms of research endeavours and teaching implications, are outlined.

6.1 Consolidation of Research Findings

The research described in this dissertation was undertaken to design a self-instructional material-centered multimedia computer programme based on the principles of a dynamic usage-based perspective and evaluate its effect on the holistic development (holistic development was operationalised as the difference in the pre and post English proficiency tests consisting of grammar, vocabulary, reading comprehension, and writing) of language proficiency of a group of first-year undergraduates of the Faculty of Management Studies and Commerce at the University of Sri Jayewardenepura in Sri Lanka. This is the first study to investigate the effect of a self-instructional material-centered multimedia computer programme that has been based on the principles of a dynamic usage-based approach to second language teaching. One of the more significant findings to emerge from this study is that the participants who followed the self-instructional material-centered multimedia computer programme (DUBc) performed significantly better than the participants of the a teacher-fronted communicative language teaching programme (tCLT) and a teacher-fronted dynamic usage-based PowerPoint based multimedia instructional programme (DUBp) in general English proficiency and equally well in writing performance. They have also shown drastic improvement in writing proficiency from pre-test to post-test and have been significantly more positive of the instructional programme than the participants of the DUBp condition.

Returning to the questions posed at the beginning of this study, it is now possible to state that the self-instructional material-centered computer programme can be adopted for the development of the general English language and writing skills of the undergraduates of the Faculty. The results of this research also support the idea that a dynamic usage-based self-instructional material-centered multimedia computer programme in which learners work in an

individualised self-paced learning environment can help overcome some of the practical problems encountered in implementing the communicative language teaching approach in large heterogeneous classes. The outcome of the study also reveals that the multimedia language lab that the Faculty has set up can now be effectively made use of to deliver individualized self-paced English language instructions to the under graduates of the Faculty.

6.2 Limitations of the Study

Naturally, this study is limited in scope and interpretability. First, the study was a quasiexperimental one in that randomized assignment of participants to conditions was not possible, for groups of participants were chosen and assigned to different conditions from intact classrooms comprising learners with different levels of language proficiency. Hence, the researcher had to face constraints in controlling for confounding variables such as teachers, attitude and motivation of learners. Second, the effect of instructions was assessed immediately following the intervention. Therefore, it is not known what the outcome of a delayed post-test would be. The long-term effects of a dynamic usage-based self-instructional multimedia computer programme could be evaluated after a similar project like the one that proved fruitful in the current study has been implemented in the Faculty, with a group of learners who are not used to CLT type setting.

Third, the sample sizes of the DUBp, tCLT, and DUBc were 90, 72, and 54 respectively. While already substantial, a larger sample size would have had increased power and might have led to differences between the conditions that were not apparent now.

Finally, the DUBc participants performed very well as a group. However, the study did not examine the results on an individual level, looking at individual differences and scoring ranges within each of the three conditions, which may be informative.

6.3 Directions for Future Research

This study leads to a number of future avenues that would be interesting to explore, both in terms of research and teaching practices. First, the participants of the current research were from different backgrounds, social classes, ethnicities, culture, and achievement levels. Due to their diversity, the learners might have approached the learning tasks differently and employed a variety of learning strategies and behavior patterns that they had developed over

time. It would be interesting to explicitly address the learners' different learning styles and the learning outcomes on an individual level in future research. In addition, further research should also be conducted on how learners perceive, interact with, and respond to the individualised self-paced learning environment.

Second, a study similar to the current one that spreads over a more substantial period of time--at least an academic year--should be done, giving students' ample opportunity to get used to the new concept of frequency of input, formulaic language, and a holistic approach to second language learning through comprehensible input. Such an approach can then also better assess the longer-term gains of implementing a dynamic usage-based approach to second language teaching in general and a self-instructional material-centered multimedia computer programme in particular, within the specific Sri Lankan context.

Third, the generalizability of the results obtained is limited because the study was confined to the Faculty of Management Studies and Commerce, University of Sri Jayewardenepura. Research should be conducted to investigate the effect of a dynamic usage-based approach to second language teaching--both teacher-fronted and self-instructional--in different experimental settings. If a replication of the present study is done, it could include both other Faculties in the University of Sri Jayewardenepura and the other universities in the country, followed-up by effect studies in different parts of the world.

Fourth, this study was a quasi-experimental study with participants from intact classroom. Further research should be conducted using an experimental study design where participants are randomly assigned to both experimental and control conditions in order to assess the effectiveness of the dynamic usage-based approach in general and the effectiveness of self-instructional material-centered multimedia computer programme in particular.

Fifth, this study has depended primarily on quantitative data with a small qualitative component. Conducting focus group interviews or students observations during the experiment will increase our understanding of the computer utility for individual self-paced language learning and the strategies users follow to maximize their benefit. Eye-tracking technology could be also used to investigate how learners attend to video and captions as well.

Sixth, the focus of the DUBp and DUBc interventions was on language development through multiple exposures to authentic input and scaffolding. Further research should be conducted to investigate the extent to which the participants have accomplished the observable results of comprehensible input, which is comprehensible output.

Finally, investigating the effect of intervention on gender was never the set-up of the current study. However, from an analytical point of view, it was interesting to note that there was a significant effect of gender with females performing significantly better than males on general English proficiency pre-test across conditions. However, the level of improvement is smaller for the female participants in comparison to the male participants on the general English proficiency post-test. Future research should therefore concentrate on the investigation of the effect of gender on second language development. In addition, future research could look at other important variables, such as student-computer familiarity and attitudes towards videos/computers for language learning.

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Appendix A: Sample lesson in steps.

Step 1—Students' are presented with a few lexical items

Can you guess the meaning of.....? Make a list What do you mean? Couple of things To look at and study so I can choose better That's smart How are you doing in here?

Step 2-Watching movie clip without subtitles



Step 3- Teacher asks a general question.

Example: Where are the son and father going to?

- Step 4 Students watch the movie clip again. The teacher asks them to pay attention to the utterances spoken by the characters.
- Step 5-Students are shown the script of the movie segment on PowerPoint, and the teacher reads the lines aloud. Teacher also explains the meanings of difficult word/lexical units/chunks on PowerPoint slides sometimes using illustrations also.

<u>Script</u>	
Son:	I think I should make a list.
Father:	What do you mean? For your birthday gifts?
Son:	Yeah.
Father:	You know you're only getting a couple of things, right?
Son:	Yeah, I know. Just to look at and study so I can choose better.
Father:	Okay, well, that's smart. Yeah, make a list. Can you spell everything you're
	thinking of?
Son:	I think so.
Father:	All right. That's good.
	How are you doing in here, man?

Explanation of meanings of difficult word/lexical units/chunks





Step 6- Students watch the movie segment again.

Step 7-Students are shown the movie script and encouraged to read aloud /role play either individually, in pairs, or in groups depending on the context.

Step 8—Students are given an activity based on the movie clip for reinforcement.

Example activity:

Which of the following best completes the sentences below?

1. Christopher tells his father that ...

he is planning to make a list for his birthday he has made a list of his favourite things to ask for his birthday.(Answer) he would not be making a list for his birthday.

2. Chris reminds Christopher that...

he would get all the things listed. he would get only a few things.(Answer) He would not be getting anything for his birthday.

 Christopher's intention of making the list is to... study and memorise the list. look at it and admire.

Pick the most suitable answer to complete the sentence.

4. Chris ...

is unable to take Christopher to the park. does not want to take Christopher to the park. agrees to take Christopher to the park.

Appendix B: Contents page of Business Communication I

Table of Contents

UNIT ONE

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- 1.2 Reading Making Business Calls
- 1.3 Grammar Revision of Present Tenses
- 1.4 Vocabulary A. TelephoningB. Prefixes
- 1.5 Listening Telephone Techniques
- 1.6 Reading Vocabulary in context (Deducing vocabulary meaning)
- 1.7 Writing Writing Business Letters
- 1.8 Reading A letter
- 1.9 Humour Polish Divorce
- 1.10 Reading The Place's Fault (A Poem)
- 1.11 Read, Think and Discuss

UNIT TWO

- 2.1 Speaking Asking for and giving opinions
- 2.2 Listening Marketing
- 2.3 Reading Doing Business in Finland
- 2.4 Grammar 1. Revision of past tenses2. Prepositions
- 2.5 Vocabulary Suffixes
- 2.6 Writing Sales letter
- 2.7. Humour What a noble Cause!
- 2.8 Reading Breakfast (Poem)
- 2.9 Writing (Based on the above poem)
- 2.10 Listening Setting up an E-Business
- 2.11 Writing Punctuation
- 2.12 Read. Think and Discuss

UNIT THREE

- 3.1 Asking for and giving information
- 3.2 Reading All about e-mail
- 3.3 Vocabulary Internet
- 3.4 Writing E-mails
- 3.5 Reading Designing your website
- 3.6 Listening 1. E-mail addresses
 - 2. A dialogue on 'Search engine optimisation'
- 3.7 Grammar 1. Future Tense
 - 2. Asking questions
 - 3. Question tags
- 3.8 Humour Why Bill Gates sold off Microsoft
- 3.9 Reading Photographing Mother (Poem)
- 3.10 Dictocomp (An integrated skills activity) The Internet
- 3.11 Reading Presentation Skills
- 3.12 Read, Think and Discuss

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- 4.1 Speaking Dialogue (At the bank)
- 4.2 Reading Opening a bank account
- 4.3 Vocabulary Banking terms
- 4.4 Grammar Basic sentence patterns
- 4.5 Humour How to ask your boss for a salary increase
- 4.6 Interactive reading Share market
- 4.7 Listening How noise affects concentration
- 4.8 Reading A letter from a bank
- 4.9 Writing 1. A letter replying to a request for a loan2. A letter requesting for a loan
- 4.10 Speaking Simulation
- 4.11 Presentation Skills Introducing oneself and stating the problem
- 4.12 Read, Think and Discuss

UNIT FIVE

- 5.1 Reading Identifying the main ideas
- 5.2 Writing and Speaking (Based on the reading text)
- 5.3 Grammar Articles
- 5.4 Writing Memorandum
- 5.5 Humour Jokes
- 5.6 Grammar Combining sentences
- 5.7 Listening A talk on 'English as a global language'
- 5.8 Writing Letter of complaint
- 5.9 Presentation Skills Effective Openings
- 5.10 Dictocomp (An integrated skills activity)
- 5.11 Speaking Role-play
- 5.12 Vocabulary Business idioms
- 5.13 Reading Women's Lib (Poem)
- 5.14 Read, Think and Discuss

Appendix C: General English proficiency and writing test

PART 1

Read the sentences about going camping. Circle the most suitable underlined word for each sentence.

- 1. They <u>decided / thought / felt</u> to go camping for their holiday.
- 2. They wanted to stand / put / stay somewhere near the sea.
- 3. It <u>had / took / got</u> three hours to bike to the campsite.
- 4. They put their tent in a <u>center / corner / back</u> of the field.
- 5. They <u>bought / chose / sent</u> some postcards to their friends.

PART 2

Read the sentences below. Circle the best underlined word(s) for each sentence.

- 6. Some writers can describe things when / that / if / who they have never seen.
- Nothing <u>changes / was changing / has changed / changed</u> in this town since I first visited it.
- 8. Hurry up! They've got only <u>a little / much / a few / little</u> seats left.
- 9. Who is going to take care $\underline{up} / \underline{of} / \underline{after} / \underline{for}$ the children while you're away?
- 10. A meeting will be <u>run / taken / held / done</u> to discuss the matter.

PART 3

Read the description of some jobs. Write the word for each one.

The first answer has been given as an example.

Job Description	Word for	Answer
	the Job	
Example: I help people to learn things.	Т	Teacher
11. I show customers the menu and bring them their food.	W	
12. People come to me when they are sick.	D	
13. I will repair your car for you.	M	
14. If you want to change the colour of your room, I will do it for you.	P	
15. I help my boss by answering the phone, making appointments, and writing letters.	S	

PART 4

Circle the word with the underlined part pronounced DIFFERENTLY from that of the other words in each set.

16. A. <u>h</u> igh	B. <u>h</u> our	C. <u>h</u> ouse	D. <u>h</u> ome
17. A. n <u>a</u> tion	B. p <u>a</u> tience	C. c <u>a</u> ncer	D. b <u>a</u> sic
18. A. lov <u>es</u>	B. practic <u>es</u>	C. chang <u>es</u>	D. watch <u>es</u>
19. A. h <u>ea</u> vy	B. <u>ea</u> sy	C. w <u>ea</u> ther	D. h <u>ea</u> d
20. A. <u>ch</u> oose	B. <u>Ch</u> ristmas	C. ar <u>ch</u> itect	D. <u>ch</u> emistry

PART 5

There is one WRONG word in each sentence. Circle the word. Then correct it.

21. Ranil is a nice guy. He always say "hi" to everyone
22. My younger brother has worked in a bank since a long time
23. How was your holiday? – Great! We take a lot of photos
24. I go to watch a movie with some of my friends last weekend
25. She's staying with her family at the summer

PART 6

Read the passage "Trade Secrets." Circle the correct answer to Question 26.

- 26. What did Swarnamali say about her mother's wedding ring?
 - a. Her mother lost her own wedding ring.
 - b. As a child, she exchanged the ring for a toy.
 - c. Someone stole the ring from her mother's car.



Trade Secrets

When I was little, my friends and I always traded things. So, one day, I traded this 'treasure' I had found in my mother's car for a plastic necklace, but it turned out that the 'treasure' was my mother's wedding ring! My mother has thought for years that someone stole her ring out of her car and has no idea that it was me! I've been keeping this secret ever since, and even though I'm grown up now, I still can't tell her the truth.

Swarnamali

PART 7

Read this postcard. Write ONE word for each space. The first space has been done as an example.

Dear Ranjith,										
I'm sitting on the beach at the mo	oment. Soon, I'm ²⁷	to have a swim. I arrived								
here three days ²⁸	with my family. We ²⁹	be on holiday								
together here for two weeks. It ³⁰	a beautiful	place. The beach is very near								
³¹ hotel. The sea	isn't cold and ³²	are many interesting								
places to visit. Yesterday we wal	ked ³³ a v	illage in the mountains. I took								
lots ³⁴ photograp	hs. It's ³⁵	pity that you didn't come								
³⁶ us.										
Love,										
Sheela										

PART 8

What does Kim say to Anita? Complete the conversation. Write the word (A, B, C, D, E, or F) in each space.

	A.	Bye, see you later.
Anita: Hello, how are you doing?	B.	That's exactly how I used to feel.
Kini. Tretty good, and you?		
Anitaz: I'm doing great.	C.	How do you like it so far?
Kim: 37	D.	You don't like it?
	E.	That's great to hear.
Anita: So, how long have you been going to this University?	F.	I've been going here for a couple of years now. You?
Kim: ³⁸		
Anita: This is my first year.		
Kim: ³⁹		
Anita: It's OK, but not great.		
Kim: ⁴⁰		
Anita: I'll like it better once I finish my General Education.		
Kim: ⁴¹		

PART 9-LISTENING

Read the passage carefully for two minutes. Listen and fill in the spaces with words you hear. There is one word for each space. You will listen 3 times.

I LOVE YOU

Love makes the world ⁴² ______4³ _____, not money. I agree with the centuries-old quote that says, 'Love conquers all'. It's true when you ⁴⁴ _____4⁵ _____4⁴⁸ _____4⁴⁸ _____4⁴⁹ ______most written and talked about topics ever. How many songs and poems ⁵⁰ ______5¹ _____5² _____ love? Millions. Billions, perhaps. Love is everywhere. You can't ⁵³ ______5⁴ _____5⁵⁵ _____ day without hearing someone say 'love'. It is one ⁵⁶ ______5⁷ _____5⁸ _____ beautiful words in any language. Your heart can melt when someone says 'I love you'. It's also very important ⁵⁹ ______6⁰ ______6¹ _____ you love them. You should do it every day. There are many different kinds of love and they are all important. Except perhaps when you love pizza or burgers. That's ⁶² ______6³ ______.

PART 10- WRITING

Choose ONE of the following topics. Write about that topic as much as possible.

- 1. My best friend
- 2. The most unforgettable day in my life
- 3. My goals and dreams for the future
- 4. My hometown

Appendix D: Mark Scheme / Evaluation Criteria

The **0** stands for the very beginning level where English is only barely emerging. There is usually very little text, and if there is text, it is mainly Sinhala/Tamil. Very simple sentence structure with many Sinhala/Tamil words and some English words thrown in, often misspelled.

The **1** stands for English that has emerged to some degree. The language used is almost all English, with only a few Sinhala/Tamil words, but the language is simple, with mainly simple sentences, present tenses, often Sinhala/Tamil word order and Sinhala/Tamil expressions literally translated. Full of little errors.

The **2** stands for English that has emerged. The English is still quite simple, simple sentence structure, simple tenses, an attempt at some creativity in vocabulary and syntax; the English may contain a Sinhalisms/Tamilisms here and there, but it is mainly English. There are still many errors.

The **3** stands for English that has emerged. The English is still quite simple with simple and compound sentences, but one or two dependent clauses may appear. There are mainly simple present and past tenses, but an occasional progressive or passive may appear. There is an attempt at some creativity in the vocabulary and syntax; even though the English still contains a few standard Sinhalisms/Tamilisms, there are also some authentic English collocations and expressions. There are still some errors.

The **4** stands for English that has more variety in sentence structures (a few dependent clauses), some variety in tenses (past, future, progressive, passive, and use of modals). There are some authentic English collocations and expressions even though the English still contains a few standard Sinhalisms/Tamilisms. Some longer sentences, less choppy. There are still some errors, but mainly in mechanics and spelling.

The **5** stands for English that has more variety in sentence structure (dependent clauses and non-finite structures), variety in tenses (past, future, progressive, passive, and use of modals) where needed. There are several authentic English collocations and expressions, but there

may also be a few standard Sinhalism/Tamilism. There are still some errors, but mainly in mechanics and spelling. The language flows.

The 6 stands for English that has native-like variety in sentence structure with dependent clauses and non-finite structures, shows native-like flexibility in time/tense/mood/voice. It contains many authentic English collocations and expressions, but there are still one or two Sinhalism/Tamilisms. There are still some errors, but mainly in mechanics and spelling.

The 7 stands for English that has a native-like variety in sentence structure with dependent clauses and non-finite structures, shows native-like flexibility in time/tense/mood/voice. It contains mostly authentic English collocations and expressions, but there still be a Sinhalism/Tamilism here and there. There are still some errors, but mainly in mechanics and spelling .

Appendix E: Willingness to communicate in English and Self-confidence in using English questionnaire

Instructions

Please put a tick $(\sqrt{)}$ in the appropriate column. Please do not leave out any of them. Thanks.

There are no good or bad answers- I am only interested in finding out how willing and self - confident you are in using English.

Scale

Willingness to Use English

Self-Confidence in Using English

Not	Somewhat	Somewhat	Very	Not	A little	Confident	Very
Willing at all	Un	Willing	Willing	Confident	Confident		Confident
	Willing			at all			
(NW)	(SNW)	(SW)	(VW)	(NC)	(LC)	(C)	(VC)
1	2	3	4	1	2	3	4

Situation Using English			Willingness				Self -				
	in Class					Confidence					
		NW	SNW	SW	VW		NC	LC	С	VC	
		1	2	3	4		1	2	3	4	
1	To stand up and briefly introduce yourself when asked										
2	When you have a question, to raise your										

	hand and ask					
3	When you have an answer, to raise your hand and answer					
4	To ask a class mate the meaning of a word you do not know					
5	To ask a class mate how to say something in English in order to express your ideas					
6	To come in front of the class and do a role-play					
7	Do a role while being at your desk					
8	To give your opinion in an group discussion on university life					
9	To ask your class-mates to repeat/say something again					
10	To say that you do not agree about something and then explain why					
11	To write about a new friend of yours					
12	To write about your favourite hobby					
13	To compliment a classmate (new shirt, new cellphone, new bike, new haircut, etc.)					

14	To describe a painting for a class mate to draw					
15	To describe a painting for the whole class to draw					
16	To describe the rules of a sport for everyone to guess					
17	To listen to a class mate describe something and guess what it is					
18	To listen to your teacher describe something and guess what it is					
19	Translate a spoken sentence from Sinhala/Tamil to English					
20	To read a short English paragraph aloud when asked					
21	To ask a class mate you like a few questions to get to know her better					
22	To ask the teacher to repeat what she/he just said because you did not understand					
23	To show directions to a foreigner when asked					
24	To post your comments on a social network (e.g. Facebook)					
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25	To talk to a foreigner if he or she talks to you first					
26	To ask for directions when you get lost in a foreign country					
27	To send a text message					
28	To write greeting cards to send to your friends (birthdays, Christmas, New Year's day etc.)					
29	To write down a list of things you must do the next day					
30	To write an e-mail to your English teacher					
31	To read summaries or plots of popular movies on the internet					
32	To fill out an application form					
33	To help someone to translate her personal letter in Sinhala/Tamil into English, so that she/he can send it to her foreign friend					
34	To make friends with people on line (e.g. Yahoo, Skype, Twitter etc.					

Appendix F: Contents page of Business Communication II

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- 1.1 Speaking Asking for and giving advice Explaining a problem
- 1.2 Listening Explaining a problem (Dialogue)
- 1.3 Reading Identifying main idea
- 1.4 Vocabulary
- 1.5 Taking notes from a lecture
- 1.6 Speaking Role-play
- 1.7 Humour
- 1.8 Reading
- 1.9 Grammar Reported Speech
- 1.10 Listening Interview
- 1.11 Interactive Reading P J Smoothies
- 1.12 Presentation skills Signposting and Emphasis
- 1.13 Listening (Song) Child By Freddie Aguilar
- 1.14 Read, think and discuss

Unit Two

- 2.1 Speaking Persuading
- 2.2 Reading Enquiries and replies (letters)
- 2.3 Writing letter
- 2.4 Grammar Conditional Sentences
- 2.5 Dictocomp (Integrated skills activity)
- 2.6 Vocabulary
- 2.7 Humour
- 2.8 Reading Advertising
- 2.9 Writing Advertisements
- 2.10 Reading
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- 2.12 Reading and Writing Discourse markers
- 2.13 Presentation skills Emphasis (contd.)
- 2.14 Listening (song) Words by Boyzone
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- 3.1 Reading Understanding cause and effect
- 3.2 Integrated skills activity
- 3.3 Grammar Modal verbs
- 3.4 Reading Problems and solutions
- 3.5 Vocabulary
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- 3.7 Reading The Story of Coke
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- 3.11 Listening (Song) Green, green grass of home
- 3.12 Read, think and discuss

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- 4.1 Reading Do it my way
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- 4.6 Reading Distinguishing fact from opinion
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- 4.12 Listening (Song) Somewhere my love by Eddie Fisher

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- 5.1 Reading Different kinds of meetings
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- 5.7 Humour
- 5.8 Vocabulary
- 5.9 Interactive reading
- 5.10 Speaking Simulation
- 5.11 Reading The Advocate
- 5.12 Integrated skills activity Collecting information for market research
- 5.13 Listening (Song) I've been alone by Lionel Ritchie
- 5.14 Read, think and discuss

Appendix G:

Given below are some examples of comments made by respondents with regard to the general approach of teaching.

Please note that all spelling and grammatical errors in the examples are those of the students, and the names of the students have all been changed to numerical codes to ensure their anonymity.

Comments made by DUBp participants

- (S67)"According to mordern teaching methology, I believe this teaching method is very effective. not for the students but for the teachers as well as."
- (S94)"We feel very comfortable with this method. Because we used to do with old method which was just copying from the Board. But this method is really very interesting Becouse its lead to involve the all students class and being very intersting activity. after few time listerning we feel vey comfortable and we get confident with that. as to me the method is very effective. So continuing this method will provide better result."
- (S3)"I think it is good methord but there is a one thing to mention. we could improve our listning and reading skills but there is no change our grammer and writing skills.its bad bad news. therefore please change English teaching methord as usefull for us.this methord is good but it is not cover our grammer site."
- (S16)"This is a good method than other method. because it is not very boring to us. but when play the same clip again & again it is very boring thing."
- (S59)"while watching movie we could learn grammer also & new worlds also. Bit it will be better if we have more spoken practices & writing activities."

(S7)"This method is not completly successfull. There were lot of defects with this programme. First one this programme was not exam oriented. and that is not cover all the areas that should so necessary for the exam."

Comments made by DUBc participants

- (SC26)"This way of learning English is more effective that learning English through a teacher."
- (SC44)"I think this approach is best to learn English."
- (SC33)"Very good. very interesting. I did not cut classes even one day. It was a novel experience. Could learn new words too. Did it with great pleasure and curiosity to know was happening in the next scene."
- (SC17)"It is very interesting and very useful it. i can see and listen so our knowledge improves very well.I think if we have a speak program we can improve our speaking side.
- (SC8) "we can learn English by listning, writing and watching. I think if it has speaking it is better than that situation. we can learning experience in the computer lab made this course a more interesting one. we can known amarican situation and we can know more words when we don't know. we enjoed and learning more things. learning English with computer it is different. I like it. always we learning english in the class rume or in the lecture hall. This is differnt. I like it so much. But I think if it has speaking chance it is better than that programme. This programme is best. But if it has add the speaking chance it is better programme than that programme."
- (SC27) "Because, we can learn English very well and happlily. It is very useful to us. we can learn English very happily. We can know about new word as well as their meaning. continue this courseware everyday."

List of abbreviations

Computer assisted language learning
Common European Framework of Reference for Languages
Communicative language teaching
Direct method
Dynamic systems theory
Dynamic usage-based
teacher-directed general English course founded on the
principles of the dynamic usage-based perspective using a
PowerPoint- based multimedia format
self-instructional material centered multimedia (general
English) course founded on the principles of the dynamic usage-
based perspective through a computer programme in
multimedia format
English as a foreign language
English as a second language
Faculty of Management Studies and Commerce
General Certificate of Education
general English proficiency
linear mixed model fit by maximum likelihood
Grammar translation
Higher education for the twenty first century
Key English test

L1	first language
L2	second language
LAN	Local area network
LMS	Learning Management System
'lmerMod	linear mixed-effects model
OSV	Object Subject Verb
PhD	Doctor of philosophy
РРТ	PowerPoint
REML	restricted maximum likelihood estimation
SC	self-confidence
SIMCMM	Self-instructional material-centered multimedia
SLA	second language acquisition
SLD	second language development
SOV	Subject Object Verb
SPSS	Statistical package for social science
TAFE	Technical and further education
tCLT/C	teacher-directed general English course based on the principles
	of the communicative language approach
USJP	University of Sri Jayewardenepura
WTC	willingness to communicate

Dit proefschrift beschrijft een onderzoek dat ingegeven werd door het feit dat er aan universiteiten in Sri Lanka enorme grote klassen van vijftig tot zestig studenten met enorme verschillen in taalvaardigheid (van beginner tot gevorderd) Engels als vreemde taal moeten leren. Helaas zijn er niet genoeg gekwalificeerde docenten om hen te onderwijzen. Het doel was daarom een computer-gestuurd programma (CGP) te ontwikkelen waarin studenten in eigen tempo hun taalvaardigheid Engels als vreemde taal kunnen ontwikkelen, liefst even effectief of effectiever dan een docent gestuurd programma.

Om het CGP te ontwikkelen en te toetsen zijn twee studies uitgevoerd: Studie 1 was bedoeld om de pedagogische aanpak en materialen te testen voor het CGP en Studie 2 heeft het CGP vergeleken met twee docent gestuurde programma's. Studie 1 was gedeeltelijk een replicatie van het onderzoek van Hong (2013). Hong's studie vond plaats aan een universiteit in Vietnam en zij bewees dat een benadering gebaseerd op een Dynamic Usage -Based (DUB) perspectief met gebruik van een speelfilm en PowerPoint presentaties effectiever was dan de traditionele communicatieve methode aldaar (zie hieronder een nadere uiteenzetting van de benadering). In Studie 1 werd een DUB benadering met films in PowerPoint-formaat (DUBp) met de traditionele communicatieve methode (tCLT) aan de Faculteit Management Studies en Handel, Universiteit van Sri Jayewardenepura vergeleken. Het belangrijkste doel was te onderzoeken of Hongs toetsen, procedures en onderwijs materialen geschikt waren in een andere context met meer gevorderde studenten en of de materialen geschikt waren om te gebruiken in een CGP met een DUB benadering (DUBc). Studie 2 vergeleek de DUBc met de traditionele communicatieve methode (tCLT) en de DUB benadering met films in PowerPoint-formaat (DUBp). In de DUBp en DUBc condities werden exact dezelfde materialen gebruikt. Het verschil was in overdracht, met docent of computer. De vraag was of het nieuwe DUBc programma net zo effectief of effectiever was dan het DUBp en/of het tCLT programma. Daarnaast is ook onderzocht hoe studenten de DUBp en DUBc programma's ondervonden (waren zij positief of niet?).

Het tCLT programma is gebaseerd op een traditionele communicatieve taalonderwijs aanpak die in de hele wereld veel gebruikt wordt. Het programma is communicatief van aard met geschreven en gesproken teksten, interactie tussen studenten en expliciete grammatica uitleg. Zowel de DUBp en DUBc onderwijsprogramma's zijn gebaseerd op een DUB benadering

van tweede taalonderwijs. Een DUB benadering is gebaseerd op een combinatie van twee belangrijke theorieën: een Usage -Based benadering binnen de cognitieve linguïstiek en de dynamische systemen theorie. Een DUB aanpak houdt in dat het leren van talen een dynamisch proces is, waarbij taal wordt gedefinieerd als een set van constructies die conventionele status hebben bereikt in de taal (Langacker, 2000). Constructies zijn grote of kleine talige eenheden die een bepaalde vorm met een bepaalde betekenis in een bepaalde context hebben. Deze constructies zijn ontstaan in het gebruik van de taal door de jaren heen en worden verwerkt als afzonderlijke eenheden (Bybee, 2008). Het leren van een taal gebeurt voornamelijk door gebruik in een dynamisch samenspel van ervaring, sociale interactie en cognitieve mechanismen. Een van de belangrijkste factoren in taalverwerving is "frequente blootstelling" (Ellis, 2002). Hoewel een DUB aanpak relatief nieuw is op het gebied van tweede taalonderwijs, bouwt het voort op reeds bestaande benaderingen zoals de Audio-Lingual Method (ALM) en Communicatief Taalonderwijs (CLT).

Een DUB aanpak is vergelijkbaar met ALM omdat het zich ook richt op het belang van herhaling en het idee dat taalstructuren het beste impliciet geleerd kunnen worden. Echter, in tegenstelling tot ALM, richt DUB zich niet op de grammatica en syntaxis, maar op allerlei constructies zoals woorden, collocaties, idiomatische uitdrukkingen en hele zinnen met de juiste uitspraak en intonatie in een betekenisvolle en pragmatisch juiste context. Als zodanig is het een communicatieve en holistische benadering van tweede taal onderwijs. Daarom is het cruciaal dat studenten worden blootgesteld aan betekenisvol en authentiek dagelijks taalgebruik.

Voor Studie 1, hebben 73 eerstejaars studenten met een gemiddelde leeftijd van 20 van de Faculteit Management Studies and Commerce aan de universiteit van Sri Jayewardenepura in Sri Lanka in het eerste semester van het academiejaar 2011-2012 deelgenomen. De studenten werden per bestaande klas toegewezen tot twee condities: In de DUBp conditie kregen 40 studenten een taalcursus ontwikkeld op basis van dezelfde DUB principes als in Hong (2013). De onderwijsmaterialen waren gebaseerd op een speelfilm "The Pursuit of Happyness" (2006, 01:57). Deze werd verdeeld in segmenten van ongeveer twee tot drie minuten en bestond uit een inleiding (de film trailer) en drieëndertig scènes. De opzet van het programma was hetzelfde voor elke scène en in overeenstemming met een DUB perspectief. Het doel was de leerders ten minste zes keer bloot te stellen aan alle uitingen in iedere scène om zo te waarborgen dat de leerders de betekenis van iedere uiting konden begrijpen en in ieder geval receptief konden onthouden. In deze interventie kwamen geen expliciete

grammaticalessen aan bod. Wel werden specifieke idiomatische constructies gemarkeerd om impliciet aan te geven dat de set van woorden één vorm was met één betekenis en een specifiek gebruik. In de tCLT conditie kregen 33 eerstejaars studenten de standaard Engelse taalcursus aangeboden, ontworpen voor de studenten van de faculteit, het Business Communication Book I. De cursus is docent gestuurd en gebaseerd op de principes van een communicatieve, coöperatieve aanpak die studenten stimuleert studenten om zowel individueel als in het groepjes te werken.

De opbrengsten van deze drie methodes werden onderzocht door middel van een voortoetsnatoets ontwerp, waarbij beide toetsen bestonden uit een aantal materialen. De taalvaardigheidstoetsen voor Studie 1 waren dezelfde als in Hong (2013): een algemene Engels taalvaardigheid toets en een schrijftoets en twee vragenlijsten over "willingness to communicate" in het Engels en zelfvertrouwen in het gebruik van Engels. De intentie van de voor-natoets-opzet was om na te gaan hoeveel de studenten in de drie condities vooruit waren gegaan als gevolg van de verschillende vormen van interventie. Maar een ander belangrijk doel van Studie 1 was om deze voor en natoets materialen te testen op hun betrouwbaarheid en validiteit in relatie tot de onderzoekspopulatie.

Uit Studie 1 kwamen drie belangrijke bevindingen: de uitkomsten, maar ook besprekingen met studenten gaven aan dat er geen aanleiding was om de toetsen, vragenlijsten, en procedures die gevalideerd waren door Hong (2013) te veranderen; dit werkte prima voor de Sri Lankese studenten. Wat betreft de onderwijsinterventie: leerders die onderwijs kregen volgens de DUB methode bleken minder dan zes keer de uitingen te hoeven horen vergeleken met de leerders in Hong (2013) omdat de leerders in de huidige studie significant meer gevorderd waren dan die in de Hong studie. De tweede uitkomst van het experiment was dat beide condities - DUBp en tCLT-- even effectief waren met betrekking tot de bevordering van de algemene receptieve Engels taalvaardigheid, waarin ook grammaticavragen aan bod kwamen, en productieve schriftelijke taalvaardigheid. Beide groepen toonden significante verbetering in beide vaardigheden. De derde uitkomst was dat de DUBp en tCLT studenten even veel bereid waren om te communiceren in het Engels en even zelfverzekerd waren in het gebruik van het Engels. Deze bevindingen zijn niet in overeenstemming met die van Hong (2013); uit haar studie bleek dat de DUBp studenten significant meer vooruit waren gegaan in drie van de vier constructen: receptieve taalvaardigheid, bereidheid te communiceren in het Engels en zelfvertrouwen. Alleen bij schrijfvaardigheid was er geen significant verschil tussen de groepen in Hong. Dit verschil in

bevindingen kan te wijten zijn geweest aan het feit dat de studenten in de huidige studie significant meer gevorderd waren dan de leerlingen in haar studie.

Op basis van de bevindingen van Studie 1 werd geconcludeerd dat een DUB benadering gebaseerd op een film met uitleg in een PowerPoint geschikt was omgevormd te worden tot een CGP: namelijk de DUBp benadering was even effectief als de tCLT benadering.

In Studie 2 hebben 216 eerstejaars studenten met een gemiddelde leeftijd van 20 van de Faculteit Management Studies and Commerce van dezelfde Sri Lankese universiteit als in Studie 1 in het tweede semester van het academisch jaar 2012-2013deelgenomen. Deze studenten waren enigszins meer gevorderd dan de studenten van Studie 1 omdat deze al in hun tweede semester beland waren en daarom meer Engelse instructie hadden ontvangen. De studenten werden per bestaande klas toegewezen tot een van drie condities: naast de DUBp en tCLT condities zoals in Studie 1 was er één groep van 54 studenten die de lessen per computer (DUBc) volgden. In de tCLT condtie volgden 72 studenten de traditionele cursus die speciaal ontworpen was voor studenten aan de faculteit, grotendeels gebaseerd op een communicatieve benadering en gegeven aan de hand van het bestaande Business Communication Book II. Ook deze cursus was docent gestuurd en gebaseerd op de principes van een communicatieve, coöperatieve aanpak die studenten stimuleert om zowel individueel als in het groepjes te werken. In de DUBp conditie waren 90 studenten die dezelfde lessen kregen als de DUBp groep in Studie 1. Voor de DUBc conditie werd het materiaal van de DUBp conditie omgezet in 34 e-learning lessen met behulp van CourseLab, een e-learning authoring tool, en gepubliceerd op cd-roms voor eenvoudig gebruik op de universiteitscomputers. Het belangrijkste verschil tussen de DUBp en DUBc programma was de wijze van overdracht. In de DUBp conditie gaf de docent aan de hand van PowerPoint presentaties uitleg aan de leerders over wat er precies gezegd werd in de scenes. Voor de DUBc conditie heeft de docent alle uitleg bij de PowerPoint slides ingesproken en leerders konden zelf bepalen hoe vaak ze de scenes wilden zien of hoe vaak de uitleg herhaald moest worden. In de DUBc conditie hadden alle deelnemers een eigen computer waarmee ze in hun eigen tempo konden werken. Dit is zeker voor de Sri Lankese context nuttig omdat studenten in grote groepen worden gezet voor hun taalvaardigheidsonderwijs Engels en deze groepen vaak verre van homogeen zijn in het taalvaardigheidsniveau van de individuele studenten.

De taalvaardigheidstoetsen voor Studie 2 waren dezelfde als in Studie 1: een voor- en natoets algemene Engelse taalvaardigheid (GEP) en een apart gescoorde schrijfopdracht. Daarnaast

werden de DUBc en DUBp studenten gevraagd om schriftelijke feedback te geven over hun respectievelijke onderwijsprogramma's.

Drie belangrijke bevindingen kwamen voort uit Studie 2: De DUBc groep had significant meer vordering gemaakt op de algemene Engelse taalvaardigheid toets dan de DUBp en tCLT groepen. Er was dus een sterk, positief effect van de DUBc instructie waarin leerders de lessen per computer gevolgd hadden in hun eigen tempo. Dit gold ook voor het grammatica onderdeel van de toets, ook al had de DUBc groep geen expliciete grammatica uitleg gekregen. Er was geen verschil tussen de DUBp en tCLT leerders; beide groepen waren significant gevorderd sinds de pre-toets, maar minder dan de DUBc groep.

Voor schrijfvaardigheid waren alle drie groepen significant gevorderd, maar er waren geen significante verschillen tussen de groepen. Wel had de DUBc groep eerder significant lager gescoord op de schriftelijke voortoets. Er was echter geen effect van conditie - DUBp, DUBc of tCLT - alleen of in interactie met andere voorspellers.

Tot slot, over het geheel genomen waren de DUBc studenten beduidend positiever dan de DUBp studenten over hun interventieprogramma. Het CGP werd als aangenamer en interessanter dan de DUBp conditie gezien. Omdat in beide condities de exact zelfde materialen werden gebruikt, kunnen we concluderen dat deze bevinding te danken was aan de wijze van overdracht. In de DUBc methode kunnen studenten werken in hun eigen tempo. In de DUBp methode moeten docenten een heterogene groep bedienen en studenten kunnen verschillen in de hoeveelheid herhaling die ze nodig hebben.

De resultaten van Studie 2 bevestigen het idee dat een DUB geïnspireerd computer gestuurd programma (CGP) een aantal van de beperkingen die de effectieve overdracht van tweede instructie in de weg staan kunnen helpen overwinnen. Deze beperkingen zijn vooral het gebrek aan gekwalificeerde en docenten en grote, heterogene taalklassen. Dat was zeer zeker het geval in Sri Lanka, waar deze studie is afgenomen, maar is vaak niet veel anders in andere delen van de wereld waar Engels onderwijs op universitair niveau gegeven wordt. De resultaten suggereren ook dat het CGP tot op zekere hoogte de huidige praktijk kan veranderen door de terughoudendheid van senior docenten van de faculteit om computers te gebruiken te overwinnen. Deze studie versterkt het idee dat het CGP studenten de kans biedt de vreemde taal in hun eigen tempo te leren en geschiktere geïndividualiseerde instructie kan bieden dan docent gestuurde lessen (Chapelle, 2005).

De resultaten van Studie 2 hebben verregaande praktische pedagogische gevolgen omdat zij het idee van deskundigen op het gebied van de tweede taal onderwijs bevestigen: meer

blootstelling aan en herhaling van authentiek taalgebruik dat begrepen wordt leidt tot meer taalontwikkeling (Verspoor & Winitz, 1997; Rousse-Malpat & Verspoor, 2012; Verspoor & Hong, 2013), en dat een CGP dat is gebaseerd op principes van een DUB benadering zeer effectief is in het bereiken van hogere taalvaardigheid. Tweede taaldocenten en materiaalontwikkelaars zouden er goed aan doen meer te kijken naar de inzetbaarheid van dergelijke DUB geïnspireerde CGP benaderingen in andere contexten en culturen, omdat het een gunstige leeromgeving kan creëren waar leerders bovendien in hun eigen tempo doorheen kunnen gaan.

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