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Intensive English for Academic Purposes: A Curriculum Designed and Developed for Local English Language Learners Entering University

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Intensive English for Academic Purposes: A Curriculum Designed and Developed for Local
English Language Learners Entering University

by

Katherine Elizabeth Crossman

A THESIS SUBMITTED TO THE FACULTY OF GRADUATE STUDIES IN PARTIAL
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Abstract

In recent years, the demographic profile of Canada has undergone rapid changes as increasing numbers of immigrants have chosen to call this country home. The Canadian K-12 and post-secondary educational systems have seen an enormous influx of language minority (LM) learners: 25% of the student body in Calgary's K-12 systems have or have had EAL coding, and the proportion of local LM students in tertiary settings is even higher. Previous research has demonstrated that despite graduating in high numbers, many of these students struggle with academic language proficiency and experience difficulties in post-secondary settings, as exhibited in low GPAs and high rates of failed courses. In response to the academic needs of the 'new mainstream' of university entrants, the iEAP (intensive English for Academic Purposes) curriculum was designed, developed, and implemented as an intervention between high school and university. This thesis describes the iEAP curriculum and presents short-term outcomes based on pre- and post-testing and long-term outcomes based on subsequent academic performance. The short-term quantitative findings demonstrate that the iEAP participants displayed high rates of improvement on a variety of academic language measures. The long-term findings on academic performance were more difficult to measure due to confounding variables, and indicate that there was a wide range of academic outcomes in the years following participation in iEAP. Qualitative findings are also used to explain, corroborate, and better understand the quantitative findings and present the participants' experiences in iEAP and university. The conclusion of this study is that growth in academic language proficiency can occur in a short period of time when well-designed and relevant curricula are put into practice.

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As I look towards the end of this project and start of the next, I dedicate this work to both my grandfather, who recently left us, and my daughter, who will soon join us.

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CHAPTER ONE: Introduction

1.1. Overview

From the diverse groups of newcomers who have settled in Canada in recent years, to the Europeans who have called this land home for countless generations and the First Nations people who originally migrated here from Central Asia over 17,000 years ago, Canada is a nation of immigrants. What unites these waves of immigrants is the shared experience of coming to a new land in search of a better life for themselves and their children.

When the Multiculturalism Act was passed in 1971, the demographics of Canada's immigrants began to shift, and since then Canada has blossomed into a diverse nation of people from all over the globe. Canada is touted as welcoming to immigrants; 85% of Canadians say that multiculturalism is an important part of their national identity (Adams, 2007). In 2011 Canada had a population of 6.8 million foreign-born people, or one fifth of the population (Chui, 2013), and there were 257,515 new immigrants in 2012 alone (Citizenship and Immigration Canada, 2013). Many of these new arrivals do not speak either of the nation's official languages as a first language (L1) and often find themselves employed in jobs that are not commensurate with their education or prior work experience. Rather than focusing on their own successful transition into Canadian society, immigrants often hold high hopes that their children will successfully adopt one of the official national languages, pursue tertiary education, realize economic stability, and better their lives.

The research presented in this thesis addresses the challenges that immigrants and their children often face in attaining and succeeding in post-secondary educational contexts. It reviews the demographics and considers the issues facing the rising numbers of students exiting the K-12 (Kindergarten to Grade 12) educational system and transitioning to tertiary-level education in

Canada. It also discusses the linguistic and academic challenges of university-level study for language minority (LM) English language learners (ELL); it is the recognition of these challenges that was the impetus for a curriculum targeting the needs of university-bound ELLs exiting Calgary high schools.

This document outlines the development of the intensive English for Academic Purposes (iEAP) program, along with the outcomes stemming from two iterations of the course. This mixed-methods research project uses a design-based research (DBR) approach to assess the curriculum and develop a case report of the course and students, fostering a better understanding of the learners and their characteristics by focusing on their experiences and performance, both within the course itself and in their subsequent university studies. The information presented in this thesis has the potential to effect policy change that will benefit these students, the university, and society as a whole.

This chapter will introduce the problem and its significance while framing the overarching research that guides this study. Predictions and hypotheses are made in light of current research and literature on the demographics of Canada and the gap in academic and linguistic skills required for post-secondary level study. Finally, the broad research strategy directing this project will be discussed, and the remainder of this document outlined.

1.2. Statement of the Problem

Canada's unique point system of immigration tends to attract individuals with professional and high socio-economic status (SES) backgrounds – in fact, immigrants are twice as likely to have post-secondary degrees than are Canadian-born citizens (Statistics Canada, 2009). It follows that these highly educated, and often under-employed, parents also have university expectations for their children; notably, immigrants and their children are over-represented in university

admissions compared with their monolingual English speaking peers (Roessingh & Douglas, 2011; 2012). It is also likely that highly educated parents have both the financial and non-monetary resources to invest in their children's education (Corak, 2008). Additionally, the children of immigrants not only enter university in higher numbers, but also are more likely to complete their university education than are children of Canadian born parents (Abada, Hou & Ram 2008). More refined research evidence, however, finds that LM students have lower GPAs (Grade Point Average) (Grayson, 2009), are less involved in university activities (Grayson, 1997), and take longer to graduate (Roessingh & Douglas, 2011). Recent local research at the University of Calgary (UofC) (Douglas, 2010) indicates that ELLs are significantly more likely to take longer to graduate, to be placed on academic probation, and be required to withdraw than their monolingual peers. On average, the grades earned by these ELLs will not lead to graduate studies and may cause hurdles in future transitions to the workplace. Similarly, the writing skills they are assumed to have, based on academic performance and existing research, are also not adequate for graduate studies or many professional demands.

It appears that ELLs entering university via local school boards are arriving inadequately prepared to meaningfully engage with university level materials and coursework. A number of studies (Douglas, 2010; Gerardi, 1996; Grayson & Stowe, 2005; Kilbride & D'Arcangelo, 2002) have shown that ELLs' academic performance is significantly lower than that of their monolingual counterparts. Many of these students demonstrate reading comprehension and vocabulary scores well below what is demanded by university materials. Roessingh and Kover (2003) report that when English Language Arts (ELA) 30-1 grades are considered, these students are reading at approximately a grade equivalency (GE) 9, while the reading levels demanded of

first year textbooks can exceed GE 17. These indicators of academic vulnerability almost certainly contribute to the tertiary-level struggles previously noted.

These performance indicators are worrisome because these students are not ‘remedial’, rather, they are, for the most part, academically competent learners who require enhanced and enriched language learning opportunities to better realize their full potential at university (Enright, 2010). These students are motivated and hardworking, and do well in other core subjects such as math and science, but have not had adequate instruction in and practice with the language that is required as they advance their studies. With a focus on interpreting literature in ELA 30-1, which is required for university admittance (Alberta Education, 2013), these students are not familiar with the genres and linguistic styles that are found across disciplines in university.

In order to ameliorate this situation and better prepare local ELLs for university, I was involved in the design and development of the iEAP curriculum in 2010. With the goal of intervening in the academic trajectory of these students as they transition from grade 12 to university, this program largely focused on language and academic strategies necessary for post-secondary study. The purpose of this research is to evaluate the impact of the curriculum using a DBR approach to develop a rich portraiture of the course, the students, and their learning trajectories through university.

1.3. Significance of the Problem

Along with the influx of LM immigrants into Canada, demographics in the local school boards have similarly shifted. ELLs currently make up 25% of the student body in the Calgary Board of Education (CBE: 2010), which comprises approximately 100,000 students. Likewise the Calgary

Catholic School District (CSSD: 2010), which serves approximately 49,000 local learners, reports that 25% of their student body does not speak English as an L1.

Official records of language status are not tracked at the UofC, but with over 30,000 fulltime students at the UofC (UofC, 2012), there are surely thousands of learners who speak another language at home. As of 2011, 16,456 UofC students were graduates of Calgary high schools. One can only approximate the number of LM students, but an estimate can be made based on their presence in the K-12 system and the fact that immigrant youth attend post-secondary education in greater numbers than do their Canadian-born peers. Keeping these facts in mind, a very conservative estimate would be that 5,000 of these local graduates had EAL (English as an Additional Language) coding at some point in their K-12 careers, but this number could also be as high as 7,400 (Roessingh & Douglas, 2011). With such a presence on campus, there is certainly a vast spectrum of demographic characteristics.

1.4. The size and scope of the challenge.

Recent doctoral research out of UofC (Douglas, 2010) indicates that these issues of ELLs' academic vulnerability are widespread. Until 2009, the Effective Writing Test (EWT) (Effective Writing Centre, 1993) was administered to all students admitted to UofC with an English Language Arts (ELA) 30-1 mark below 75% or a mark of less than 80% on the ELA 30-1 provincial exam. The EWT served three functions: 1. to indicate the general proficiency and level of entering students, 2. to identify students with poor writing skills, and 3. to provide assistance to identified students.

In order to maintain admission beyond the first year, these students were required to pass this exam within their first year of study. In the years leading up to the retirement of this test, nearly half of newly admitted students sat the exam. Of those students, 70% of monolingual

English speakers passed the exam on their first sitting, whereas just 35% of ELLs (and only 23% of students with a first language of “Chinese”) passed on their first attempt (Douglas, 2010).

Those students who were unable to successfully pass the EWT in their first year were put on a “withhold list” meaning that their admittance was suspended due to their inability to demonstrate university-level writing skills; in June 2002, for example, 796 students were unable to register in further study for this reason. In his doctoral research, Douglas (2010) found significant differences in performance on the test and subsequent academic performance between a sub-set of two groups of ELLs and monolinguals who sat the exam.

The EWT’s tenure lasted from 1976 until 2009. Officially retired in 2010, there is now no institutional protocol for identifying students who are academically vulnerable due to limited writing proficiency. Since its retirement, there has been no standard measure of writing proficiency in place at UofC, abandoning students and instructors to rely upon themselves to recognize, identify, and address writing problems. Furthermore, valuable information about the quality of student writing and general levels of academic proficiency has been sacrificed.

The sheer number of students, coupled with the current inability to formally identify at-risk students, is a significant issue faced by UofC and likely other Canadian post-secondary institutions. While academically vulnerable learners are now on campus in even greater numbers than in the past, even less support is offered or obtained because those unable to pass EWT are no longer prevented from registering in further study if they maintain a minimum GPA. This can hinder student performance, the level of instruction at which professors can effectively teach, and the university’s ability to identify and resolve issues about academic literacy.

Not only further research, but also programs and policies designed to identify and mitigate these issues are timely and necessary if these students are to realize their full academic

potential in post-secondary institutions across the country and go on to become productive and adequately-employed members of Canadian society.

1.5. Context of the Study

Between December 2009 and June 2010, I, along with a UofC colleague Geoff Pinchbeck and under the supervision of Hetty Roessingh, faculty member at UofC, co-developed the iEAP curriculum (Crossman, Pinchbeck & Roessingh, 2010) to address the issues introduced in the preceding sections. The project was funded through Alberta Employment and Immigration (Roessingh, 2009) in response to the growing need for academic support and preparation for local ELLs entering university.

iEAP was designed and developed to address the specific needs of students admitted to various faculties at UofC. Although the students targeted for the program had already gained admission to university, they demonstrated failing or nearing-failing grades on ELA 30-1 diploma exams and had been identified by their high school teachers as benefitting from remediation. iEAP was designed to intervene in the learning trajectory of university-bound students with the intent of increasing their academic proficiency in terms of vocabulary, reading comprehension, linguistic skills and strategies, as well as academic strategies and awareness.

iEAP consisted of 120 hours of instructional time over six weeks; it was an intensive course intending to accelerate learning and help students reach a threshold of academic proficiency during the fleeting time between high school and university. Open to students of all faculties, the overarching topic of the curriculum was “urban development in Calgary” and consisted of three units representing the most common fields of study: Social Sciences and Humanities, Science and Engineering, and Business. The umbrella theme was approached from the perspectives of each of these fields and gave students the opportunity to develop academic

proficiency in each area by engaging with appropriately supported and scaffolded university-level materials.

The curriculum was implemented in the summers of 2010 and 2011 at UofC through the English for Academic Purposes Program (EAPP). The two iterations were intimate: seven students participated in 2010 and just four in 2011. The data set they produced was rich, and the small class sizes provided the opportunity to gain a profound understanding of the students and their needs, while providing the participants with individualized attention. This research delves into this rich source of data, allowing for triangulation within a bounded case study.

I taught the first iteration of the curriculum, and Ms. Brianna Hilman, another EAPP instructor, facilitated the second course in 2011. During that iteration, Ms. Hilman and I worked closely together and I was also involved with the class on an almost daily basis. Although these two cohorts were very small, they provided incalculable insights into the learners, their situations, and their needs. My own understandings of the students and their circumstances were more informed by these two iterations than nearly a year of reading research and talking with instructors and teachers. Working one-on-one with the learners themselves increased awareness and prompted further tweaking of the curriculum. For example, upon implementing the program we realized that a number of our assumptions about the student levels had been misguided. Based on previous local research (Roessingh & Kover, 2003), we had predicted the students would arrive at university reading at a GE 9. We instead found that they were reading closer to a GE 6. This required that we make modifications during the first administration of iEAP and subsequently integrate extra support into the curriculum.

1.6. Research Strategy

This research represents a bounded case study of the iEAP program, a small-scale intervention for ELLs who have been admitted to UofC, but who had been deemed at academic risk as a consequence of their English language proficiency as reflected in their marginal or failing ELA 30-1 marks. In describing case based work, Weiss (1998) writes: “The defining feature is the exploration of complex real-life interactions as a composite whole” (p. 261). Thus, case study is particularly appropriate as a means to understanding the interactions of the iEAP participants with the curriculum. Yin (1984) places a demand on the researcher in constructing the theoretical framework that explains the interacting variables, and as the co-designer of the iEAP curriculum, the teacher in the initial pilot of iEAP, as well as the researcher seeking to glean insights into the impact of the iEAP curriculum, I played multiple roles in this project that must be balanced, recognized, and subject to scrutiny and reflection. This challenge was never far from the central goal of this thesis work: to understand and explain the potential of iEAP to make a difference in the learning trajectory of local ELLs entering post-secondary studies at UofC. Furthermore, the findings in this study may also suggest considerations for reform of admission policy, programmatic and service supports, as well as instructional practices for this demographic of learner both preceding and following university admittance.

A mixed methods approach within the broad heuristic of DBR (Brown, 1992) was chosen for its suitability to address the iterative, embedded, and context specific nature of this type of endeavor. An array of both qualitative and quantitative data was collected in the iEAP program, along with follow-up data related to the more distal influences of the students’ participation in the program. This research seeks to glean research insights into the guiding questions that follow.

1.7. Research Questions and Hypotheses

Two questions direct this research:

- *What are the proximal and distal effects of iEAP that are visible in a variety of measures that reflect on growth of English academic language proficiency and students' academic achievement over time?*
- *How do students perceive their participation in iEAP and the impact of iEAP on their subsequent academic engagement at university?*

A subset of related, more detailed questions further guide this research and will more adequately respond to the overarching questions. In Chapter Two, the literature review, these guiding questions are elaborated and refined into nine sub-questions that will be investigated both independently and in combination to create a rich description of the iEAP students and the course.

One assumption underlying this project is that the students participating in iEAP are intelligent, motivated, and capable of achieving academic success when provided with carefully designed materials and targeted, explicit instruction. In addition, impressive and accelerated linguistic gains, as measured by vocabulary usage, writing proficiency, and reading level, can be made in a short amount of time; marked and significant improvements in academic literacy and proficiency can be made in an intensive course (Serdyukov, 2008). I further predict that short-term achievements will translate into longer-term achievements in relation to academic performance in university. I hypothesize that this study will also provide valuable insights into the characteristics of these students.

1.8. Definition of Terms

After much deliberation about inclusive, yet intuitive terminology, both *Language Minority* (LM) learner and *English Language Learner* (ELL) are used in this document to refer to the demographic of local learner this study addresses. While a number of labels have been used in the research literature over the last few decades, I chose to use the term LM because I feel it is the most neutral, yet descriptive, of the options, and does not construe a notion of incompleteness or a lack of language status or ability. While ELL is widely used and also employed throughout this text, it highlights the developing nature of English language proficiency, and is also used to refer to international learners or learners in a foreign context. I use this term where I wish to draw attention to the fact that an individual is still in the process of developing his or her language skills. ELL is also used when referring to findings in the literature that report on “Non-native English Speakers”, while monolingual English speaker is used to describe those who have grown up in an English speaking household in an English language context.

Although the term *Generation 1.5* (G1.5) has been widely used to describe the students with similar demographic profiles to those in the study at hand, this term has recently become less widely used, as it may give an impression of incompleteness or semi-development, rather than the intended notion of “in-between-ness” (Park, 1999). For these reasons, I have most often opted for the broader and more neutral terms LM and ELL throughout this document.

For simplicity’s sake, *English as an Additional Language* (EAL) is used in place of the more traditional, but narrower ESL (English as a Second Language), despite the fact that Alberta Education still uses ESL to code students for funding purposes. Additionally, L1 refers to a person’s first language or the language spoken in their home, while L2 is typically an additional

language, or the language of the majority - typically English, despite the fact that these students may be more proficient in their L2 than their L1, or speak more than two languages.

Each time a new acronym is introduced in a chapter it is defined, and a comprehensive list of acronyms used throughout this document can be found in Appendix A.

1.9. Structure of the Dissertation

This thesis is organized into six chapters. The problem, its significance, and the research plan itself were presented in this introductory chapter. The theoretical framework and a review of the literature can be found in Chapter Two, which opens with a discussion of the target students and their needs. Then, both current and seminal literature guiding understandings of learning theory, L1 and L2 acquisition, academic language and university requirements, the role of vocabulary and its effect on academic performance, curricular implications, and research strategies are also reviewed and considered. Chapter Three covers the research design, the data and instrumentation, and the participants. Chapter Four outlines the procedures and findings pertaining to the nine sub-questions as well as a discussion of the findings, highlighting and contextualizing the results presented earlier in the chapter. Chapter Five concludes with a discussion of the implications of this study and presents recommendations for future research. The Appendix contains additional pertinent materials, as well as a thorough description of the development of iEAP, along with the preliminary findings that provided the catalyst for this research project.

CHAPTER TWO: A Review of the Literature

2.1. Introduction

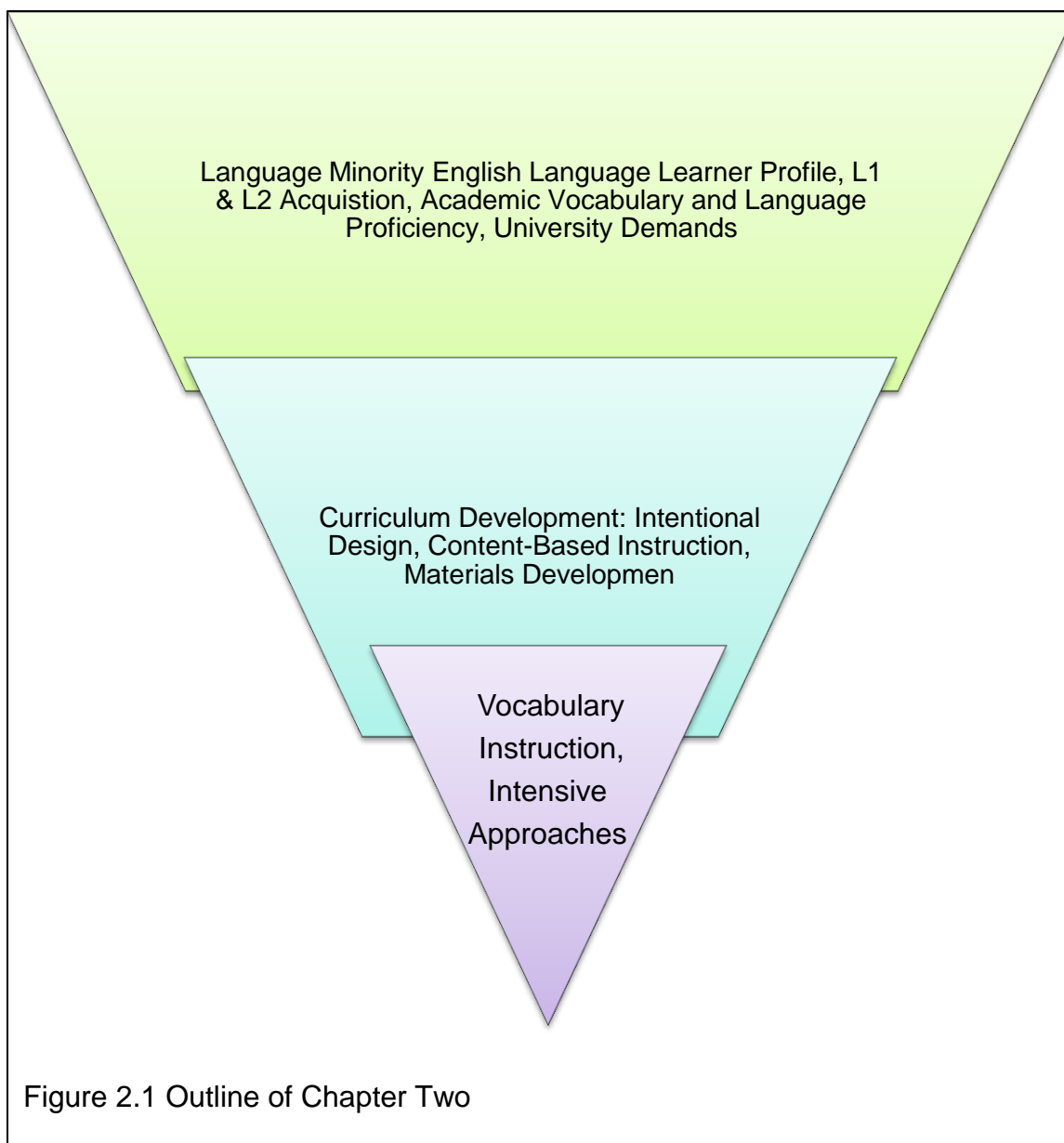
Chapter Two is a review of the literature that provides the theoretical framing for the design and development of the iEAP curriculum and this thesis project. This chapter begins with a description of the learning needs, the students who are the focus of the curriculum project, and the related research. It is ELLs increasing presence in the K-12 system and their arrival at university in rising numbers, along with the evidence of their academic struggles that were the catalysts for this project. This chapter then reviews the literature that provides the theoretical underpinnings for the design and development of the iEAP curriculum, and the research undertaken during the implementations in 2010 and 2011.

Chapter Two presents the qualities of the learners bound for university study and describes their early academic and university learning experiences. The framework then continues with a description of L1 and L2 language acquisition theory and patterns of development; it establishes that rich, comprehensible input (Krashen, 1979) is necessary for the successful acquisition of any language, yet targeted and direct instruction is fundamental to successful SLA (Second Language Acquisition), especially as LM learners must catch up to their monolingual peers in a limited amount of time. This is especially apparent in the development of academic language proficiency, the acquisition of which is protracted, yet necessary for success at university (Cummins & Man, 2007). In essence, academic literacy is understood to involve the ability to marshal, mobilize, and manipulate the cognitive and linguistic resources to fulfill the complex array of academic tasks required of advanced studies. While all modes of discourse (reading, writing, speaking, and listening) are included, it is principally through reading and writing that the work of advanced study is realized. A critical dimension of academic literacy

involves the development of academic skills and learning strategies. This is especially true for ELLs, since they may overcompensate for their linguistic vulnerability to some degree by deploying skills and strategies that can be directly taught. There is also a discussion of the non-cognitive factors that contribute to university level success.

The chapter goes on to discuss the curricular underpinnings upon which iEAP is hinged. Three intentional approaches to curricular design are discussed, and the importance of content-based instruction and sustained content is established. Approaches to material design, along with an exploration of the primacy of vocabulary instruction, are then detailed. The curriculum section then culminates with a discussion of intensive programs.

The major sections and the general flow of Chapter Two are mapped out in Figure 2.1.



2.2. Characteristics of Target ELLs

The bulk of research (for example, Collier & Thomas, 1989; Enright, 2010; Harklau, Losey & Seigal, 1999; Kanno & Harklau, 2012; Portes & Rumbaut, 2001; Roberge, Siegal, & Harklau, 2009) about LM students bound for post-secondary education originates in the US; however, in recent years, a growing body of Canadian-based literature has emerged (Fox, 2005; Garnett, 2012; Grayson, 2009; Roessingh & Douglas, 2011; 2012) and a large-scale quantitative study (Garnett, 2010) of trajectories of EAL students from British Columbia offers many insights by reviewing a multitude of variables. Furthermore, a local context, as described by Douglas (2010) and Roessingh & Douglas (2011; 2012) has also contributed to the literature and broadened recognition of the needs of local LM learners.

With 25% of the students in the Calgary Board of Education (CBE, 2010) and Calgary Catholic School District (CSSD, 2010) at one time coded as speaking EAL, the numbers of these students are noteworthy. LM students attend university at higher rates than their monolingual peers in Canada (Abada, Hou & Ram, 2008). Such a large figure almost certainly belies a vast spectrum of demographic characteristics and the local ELLs arriving at universities have highly variable Age on Arrival (AOA) and increasingly are Canadian-born. Certainly this large demographic shift is changing today's classroom and what Enright (2011) calls the "new mainstream," which refers to the diversity, the challenges, and potentials this shift entails.

This sub-chapter looks further at this growing demographic and highlights some of its most salient characteristics. Issues facing these students, especially in regards to academic performance and aspirations, are also explored.

2.2.1. Learner characteristics.

In recent decades, the term Generation 1.5 (G1.5) has often been used to describe this same group of students. It originated in the Korean-American media to describe the children of

immigrants and younger arrivals that did not neatly fit into the categories of *i-se* (first generation) or *il-se* (second generation). The label *cheom ose* (G1.5) was used to describe the “in-betweenness” of these individuals (Park, 1999); they are not totally Americanized, yet also not typically Korean. The term conveyed that their identities and experiences were situated in the grey area between the two better defined and more widely recognized generations.

The notion of G1.5 was adopted in the broader American context in the late nineties (Roberge, 2009), although Rumbaut (1997) first used the term in the seventies in reference to ELL students. The label was applied within this context to highlight that these learners did not neatly fit into traditional linguistic or generational categories. Nowadays its usage varies, and what constitutes a G1.5 student has become the subject of much debate and interpretation. Some publications use this label to describe early arrivals or domestically born children of immigrants, others use it for students arriving well into their adolescence, and still others only use the term for students experiencing difficulties.

The term G1.5 is a contested one, and Benesch (2008), for example, claims it connotes “partiality” or incompleteness. In this document, and as noted in section 1.7, the term Language Minority (LM) learner is used to describe the students of interest to this study, as the label G1.5 has such a large scope and range of interpretation. The learners’ language and academic performance, rather than their AOA, is of concern, and the effect of AOA is not entirely clear, with different studies having come to different conclusions: Hou & Balakrishnan (1996) found that there was a positive correlation with academic performance and younger AOA, but others (Douglas, 2010; Hakuta, Butler & Witt, 2000) have not found the same relationship. Although the characteristics and needs of these particular students may overlap with those of first generation, second generation, international, and monolingual students, there are many

characteristics that they do not share with these groups that have traditionally been better represented in the research literature.

Within this profile of learner, a large spectrum of individual and group differences are demonstrated, yet there are certain key shared characteristics. Most notably, these learners all speak a language other than English at home, and were likely at one point coded in the K-12 system as speaking EAL, although their proficiency in both English and their L1 may vary substantially. These individuals straddle and frequently juggle two distinct cultures while working within multiple languages, which is called translanguaging (Williams, 2002). Typically they must negotiate differing identities: they may be their parents' translators or ambassadors for Canadian culture; they may also, however, find themselves on the margins of traditional Canadian culture because of lived experiences that differ widely from those of many of their peers.

2.2.2. University-bound Local ELLs.

No longer is high school study enough to prepare young adults for the workplace, and gone are the days where a job with a living wage could be obtained upon completion of grade 12 and maintained until retirement. Due to the widening gap between knowledge-based professions and the service sector, today's students and their parents recognize the need for tertiary-level education for most secure jobs; service industry and unskilled positions are filled more and more by youth and immigrants who are willing to work for a lower wage and less job stability (Suárez-Orozco & Suárez-Orozco, 2002). It is projected that in the next decade over two thirds of jobs will require post-secondary education (Employment and Social Development Canada, 2011) and more permanent positions are in professional fields such as health care, education, computer technology, engineering, and business, where advanced education is prerequisite. Furthermore,

the gap between the wages earned by high school graduates and university graduates in Canada continues to steadily increase (Hansen, 2006).

According to the PCEIP (Pan-Canadian Educational Indicators Program, 2011) more students are opting to pursue post-secondary study than ever before, and the number of undergraduate degrees awarded between 2001 and 2007 in Canada went up 5.7%. There is a significant cross-generational improvement in levels of university completion among the children of immigrants in Canada, with fathers' university completion rates at 24% and their children at 37.6% (Abada, Hou & Ram, 2008), and that immigrants and their children are more likely to attend university regardless of their SES (Socio Economic Status) (Garnett, 2010; Picot & Hou, 2011). This trend is not just north of the 49th parallel, with post-secondary enrollment also going up 38% between 1999 and 2009 (US Department of Education, 2011) in the US as well.

Abada, Hou & Ram (2008) report that 37.6% of children of immigrants obtain a university degree, compared to 27.5% of children of Canadian-born citizens. In particular, Chinese and Indian students obtain degrees in the highest numbers with completion rates of 69.5% and 65.2% respectively, yet on a micro-level there are significant intergroup differences in educational trajectories amongst immigrants (Garnett, 2010; Grayson, 2009; Portes & Rumbaut, 2001). Although these numbers sound quite promising for LM learners, many reports about educational achievement focus only on final attainment (Anisef, Blais, McAndrew, Ungerleider & Sweet, 2004) rather than the educational process, and provide little information about the obstacles that students may encounter in the K-12 and university, or K-16 (Kindergarten to university degree completion), system and beyond.

2.2.3. K-12 academic experiences.

LM students, particularly ELLs, face significant barriers throughout their educational careers.

The K-12 system advantages the language majority children as curricula are largely designed and implemented by members of this social group, and there is a general lack of understanding about how language is learned and the type of language skills necessary for school success (Valdes, 2004). In the US, the level of academic achievement for ELLs has lagged significantly behind that of monolinguals (Christian, 2006).

On the other hand, there is the established notion of the model minority, which is the belief that because a learner is of a certain ethnic background or speaks a particular L1, he or she is diligent, hardworking, and resilient. Teachers may overlook a student's poor academic performance because the student is quiet and well behaved. Furthermore, a teacher might assume that because of a student's minority status he or she is academically superior to his or her peers (Petersen, 1966), in turn overlooking signs of distress.

Another issue facing LM students in the K-12 system is that many programs for early literacy and EAL instruction focus on decoding skills, which describe a grasp of phonics and an ability to sound out words and are far removed from the reading comprehension skills necessary for academic study. The types of instruction used to teach decoding skills is largely disconnected from reading comprehension strategies (Cummins, Brown & Sayers, 2007). While decoding is certainly an important preface to comprehension, the two skills cannot be equated, and typically ELLs learn to decode quickly and readily (Lesaux & Siegal, 2003), which may lead researchers and classroom practitioners to erroneously conclude that reading comprehension will naturally follow. Krashen (2003; 2008; 2009) has repeatedly reported on the poor results of the *Reading First* program used in the US, which focused on decoding skills; after the lengthy program, students were shown to be slightly better at decoding, but showed no increases in reading

comprehension. Canadian research (Gunderson, 2007) indicates that ELLs are not as successful as monolinguals in learning to read in terms of comprehension, performing about 2.5 Grade Equivalency (GE) years lower than monolingual peers on a standardized reading test (Gunderson & Carrigan, 1993). Further, ELLs make swift and impressive gains in the decoding aspect of reading and can “fool” their instructors into believing that their reading abilities are greater than they really are.

Although well-developed vocabulary knowledge has been shown to be most strongly indicative of reading comprehension performance (Biemiller, 2003), elementary generalist teachers do not tend to focus on this instructional need of LM students (Roessingh & Elgie, 2009), and a balanced approach to early literacy development is called for, with sustained attention to developing academic vocabulary, which is especially needed for reading for information (Schleppegrell, 2004).

Similarly, Roessingh & Kover (2003) have shown that well-meaning teachers may award inflated grades to these students, likely because they either do not want to “hold these students back” or because are not trained to deal with EAL students’ language needs (Foscolos, 2000). Unfortunately, by not recognizing and responding to their specific lexical needs, or by awarding unearned grades, teachers and administrators are giving the false impression that these students are prepared for the rigours of advanced study, when in reality many of these students have not received adequate preparation for university.

The path to university is paved during early schooling experiences: early vocabulary and reading performance consistently predict distal educational outcomes, and it is well-documented that acquiring advanced language proficiency is a gradual process and particularly arduous in L2, as described in section 2.6. Yet, the period of funded EAL support in the school system is

unrealistically short and students are often prematurely mainstreamed (Murie, Rojas Collins & Detzner, 2004), usually after two or three years in Alberta. It has also been shown (Roessingh & Kover, 2003; Thomas & Collier, 1997) that EAL support in the early years is key to eventual academic outcomes. Once in mainstream classes for which they are not adequately prepared, ELLs may struggle to keep up with the content and fall behind while their peers continue to progress.

The learning process is non-linear, the more knowledge or language that is acquired, the easier subsequent knowledge and language is developed. There are also certain ‘trigger points’ in the educational trajectory, such as at grade four and grade nine, where knowledge is rapidly acquired, but a threshold of language is necessary to set the stage for these jumps. It is for this reason that gap between monolinguals, especially those who are academically inclined, and ELLs continues to grow. This is a classic case of what Stanovich (1986) called the “Matthew Effect” in the context of developing literacy. The idea is that while the rich get richer, the poor get poorer, largely due to the fact that the rich have more resources and opportunities to continue to increase their wealth, while the poor are both burdened by their poverty and have access to fewer opportunities to change their circumstances. Similarly, the academically inclined language majority student has a linguistically rich repertoire of words from which to draw, a lot of linguistic “capital” to reinvest, and exposure to ample opportunity to accrue more lexical wealth. Their ELL counterparts, on the other hand, have less linguistic capital and less exposure to words in English, while taxed by the challenges of learning content within the context of a still developing language.

2.2.4. University experiences.

Canadian research (Douglas, 2010; Grayson, 2009; Roessingh & Douglas, 2011; 2012) has shown that once at university, LM learners experience greater academic challenges than their

monolingual peers and have GPAs that are lower than monolinguals. More extensive research out of the U.S. has likewise shown disparities between monolingual and ELL performance in school and university (Allison, 2009; Roberge, 2009; Harklau, Siegal & Losey, 1999; Murie, et al, 2004; Portes & Rumbaut, 2001; Rumbaut & Ima, 1988). Such academic indicators highlight that ELLs will likely be excluded from graduate studies and encounter difficulties in the workplace, representing an enormous loss of educational capital and our goals of a vibrant, competitive, and diverse workforce that reflects Canada's increasingly multicultural reality.

Much like the K-12 system, universities are often not prepared to meet the needs of the growing numbers of local ELL entrants. Admissions are often misaligned with support services (Hirsh, 2006), and faculty may struggle to effectively educate under-prepared students (Cote & Allahar, 2007). Snow (1997) describes a variety of faculty reactions to the growing numbers of ELL students now in their classrooms. They show

- denial that demographic changes have seriously altered the profile of students in their classes and are instead incredulous that so many students are arriving at university unprepared by their K-12 experiences,
- an unwillingness to step out of their traditional roles as content instructors to provide linguistic support, and
- concern for struggling students, coupled with a lack of training to mitigate their linguistic challenges.

Because of the mismatch between the techniques traditionally used with monolingual students and shifting cultural and linguistic needs, faculty often respond by either lowering their standards or failing more students. Perhaps because of the onslaught or the overwhelming diversity of this group of students, their features, and needs, the education system appears to be

unprepared to handle the learning requirements of the “new mainstream” (Enright, 2011). It is therefore crucial that students arrive better prepared and able to manage the demands of tertiary study.

2.3. Patterns of L1 Development

One of the most amazing feats of childhood development is the acquisition of language. Within the first few years of life, the vast majority of children become competent users of the language that surrounds them. Although it seems that language is absorbed effortlessly, children actually spend countless hours repeating sounds, watching caregivers’ lips, playing with language, and listening intently. While there is a wide spectrum of L1 acquisition rates, the order in which the process unfolds is quite predictable (Wells, 1986). Despite being incapable of many apparently simple actions such as tying shoes or blowing noses, typical three-year-olds exhibit a complex understanding of grammar. Although it would appear that children are somehow programmed to teach themselves language in early life (Lenneberg, 1967; Pinker, 1994), all children do not, however, learn language at the same rate, which varies greatly between individual children and social class groups.

Hart and Risley’s (1995) renowned study of 42 children of varying social classes showed positive correlations between Socio-Economic Status (SES) and language development in the first three years of life. Known as the ‘30 million word gap’ (2003), they found that by age three, children growing up in welfare class families were exposed to 30 million fewer words than those from professional families. Hart and Risley summarize their findings with the assertion that the “most important difference among families was not the relative advantages conferred by education and income but the amount of talking the parents did with their children” (1999, p. 181).

Hart and Risley's original study (1995) also found that professional-family children also demonstrated larger vocabularies both as young children and as school-agers. Furthermore, they also reached higher levels of academic performance and demonstrated higher IQs. The number of words they were exposed to throughout childhood and adolescence is the most important factor contributing to this success. Indeed, the children of professionals with high levels of education are also more likely to attend post-secondary education (Finnie & Mueller, 2008; Turcotte, 2011), and arrive at school with significantly larger personal lexica than their peers from less economically privileged backgrounds.

Although these children were studied over 20 years ago and Hart and Risley's study remains relevant when discussing L1 acquisition, it is not without its critics. Nation (n.d.) has questioned their methodology of measuring tokens (the total number of words) rather than unique words, or "types", claiming that although the children were exposed to varying amounts of speech, it does not necessarily indicate that the children with fewer word experiences were exposed to an impoverished lexicon. Although their findings are well recognized and telling, we must keep in mind that it is a relatively small ($n=42$) non-experimental study; for example, it is not known or provable whether or not the low SES youngsters would have had greater vocabulary development and academic outcomes had they been exposed to more words (Kirby, 1997). There is, however, some other evidence (Biemiller, 1999) that low SES children whose parents engage with them using language typical of high SES parents develop stronger language than do their other low SES peers, corroborating the conclusions of Hart and Risley.

Other studies looking at L1 development have shown that the effect of interventions on young and linguistically vulnerable learners is often short-lived. While these studies show that youngsters involved with programs such as storybook readings (Weitzman & Snow, 2001) or

Head Start (Puma, Bell, Cook, Heid, Broene, Jenkins, Mashburn & Downer, 2012) show immediate gains, they fail to maintain this boost over time. The long-term outcomes suggest a “wash out” effect, and it is understood that these early and easy-to-get gains are quickly lost without sustained and ongoing support (Walberg & Wallace, 1992).

Imagine now children growing up in a home where the country’s dominant language is not spoken. Even with television and exposure to majority language speakers in public spaces, LM children who speak another language at home have little exposure to the dominant language. They arrive at school with vastly different levels of English in comparison to their peers from English-speaking professional families. Yet it is these very peers that they will be pitted against throughout the K-12 system, for university admittance, during post-secondary study, and later in the work force.

2.4. Patterns of L2 Development

Much like L1 acquisition, there is a broad spectrum of the rate of acquisition for ELLs. Despite these differences, a general trajectory and similar error patterns of L2 language acquisition across different L1s is reported (Bialystok & Hakuta, 1994). Few language learners manage to attain native-speaker-like proficiency, and there is a monotonic decline in L2 proficiency based on AOA (Hakuta, 1999). Whereas younger learners may quickly acquire conversational fluency while struggling with more nuanced or abstract language, adult learners may develop a large vocabulary and appropriate academic register despite tripping up on prepositions, verb tenses, or grammatical agreement.

There are a number of myths and misconceptions about the acquisition of language, especially during childhood, which may be doing a disservice to school-aged ELLs (McLaughlin, 1992). For example, it is widely assumed by teachers that children have an innate

ability to learn language quickly and easily, but studies show that adolescents and adults outperform children in terms of syntax and morphology under controlled conditions, given the same duration of exposure (Krashen, Long & Scarcella, 1979). Furthermore, the language required of children is rudimentary compared to that of an adult, who is expected to be communicative in a variety of settings and registers, lending to the illusion that children are more effective learners (Snow & Hoefnagel-Hoehle, 1978). In terms of pronunciation, however, the argument that children are more naturally adept does indeed hold water: younger arrivals adopt the standard accent more effectively than do their older arriving peers. When younger arrivals effectively sound “natural,” their speaking skills may mask their actual command of the language, and it is often, and falsely, assumed that they have attained a high level of language proficiency, whereas they have not acquired the language skills or vocabulary concomitant with the demands of school.

While the assumption that young conversant LM learners have effectively acquired English is widespread, the same cannot always be said about their written proficiency. Due to the increased cognitive load of writing in a second language, L2 writers may need to dedicate much of their writing time and energies to lower level functions such as attending to grammatical structure and lexical selection, leaving them with insufficient resources to deal with the higher level functions necessary for academic writing, such as textual organization or persuasion (Schoonen, van Gelderen, de Glopper, Hulsihn, Simis & Snellings, 2003). Similarly, word or sentence level errors that are typical of ELLs may detract the reader’s attention from more substantive aspects of their writing. The next section will outline some of the main features of second language acquisition (SLA), and proficiency.

2.5. Developing Academic Proficiency

Monolinguals are the yardstick against which ELLs are frequently measured, and Native Speakers (NSs) are considered to possess the standard of language that is the target of instruction and the standard by which ELLs are judged against (Escudero & Smith, 2001). The definition and understanding of ‘native speaker’ is tenuous and variable. Just as among LM learners, a great diversity of linguistic abilities, levels, interests, and needs exist among NSs. That NSs are often assumed to have a final state of linguistic knowledge and ability, when in fact their language knowledge is constantly evolving and highly variable, is problematic at best (Kravchenko, 2010).

In the context of this study, it is academic language proficiency (Cummins & Man, 2007) that is most relevant and is “characterized by a knowledge of the less frequent vocabulary of English, as well as the ability to interpret and produce increasingly complex written language” (p. 801). It is also the ability to mobilize and manipulate a vast, sophisticated, and complex linguistic repertoire for a variety of purposes, principally in the written mode (Ravid & Tolchinsky, 2002), that dominates university study. The development of academic language is longterm, especially when contrasted with conversational fluency, which can be acquired in a year or two of immersive instruction (Cummins, 1981).

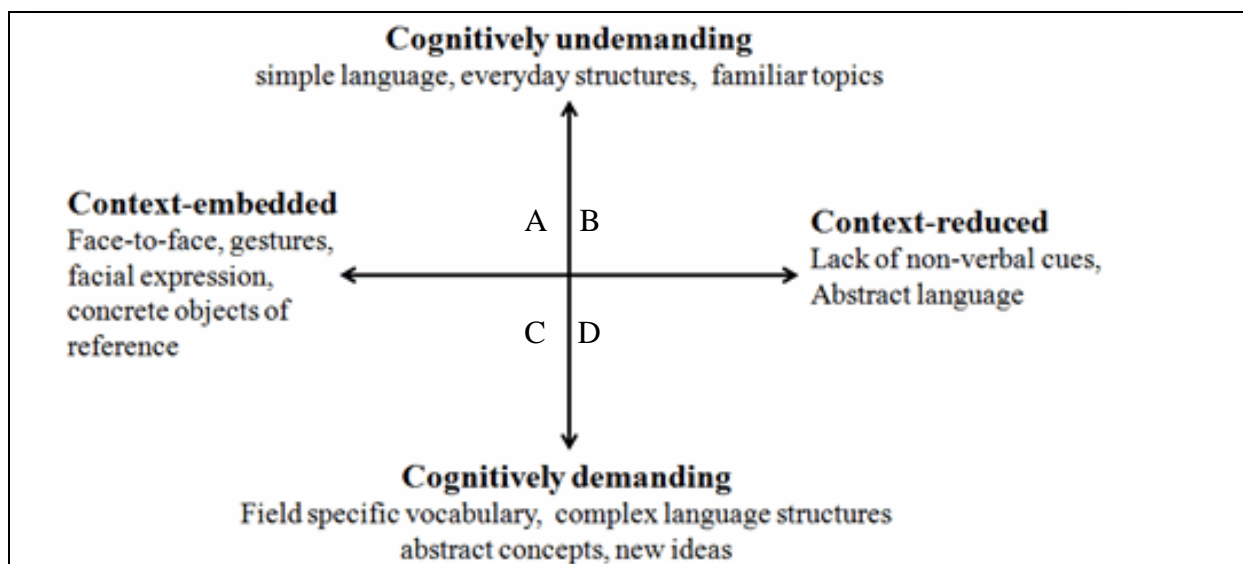


Figure 2.2 BICS and CALP Continua

Cummins (1979) coined the terms Basic Interpersonal Communication Skills (BICS) and Cognitive Academic Language Proficiency (CALP) to describe language use along two intersecting continua: context rich to context reduced, and cognitively undemanding to cognitively demanding. The “here and now” of conversational discourse is characterized by nouns and adjectives for naming things, together with the context-reduced but cognitively-undemanding language of “lived experiences” that comprise BICS. CALP is characterized by increased cognitive demands and decreased context support: abstract uses of language that require language itself as a mediating variable. Metaphor and imagery, for example, are needed to construct possible models of human experience.

Cummins and Man’s (2007) description of academic language proficiency is largely based on his earlier work (Cummins 1979, 1981), which describes the BICS/CALP continuum, which is outlined in Figure 2.2. Cummins’ model (1981) can still be valuable in that it is widely recognized and continues to provide a useful heuristic to consider the academic language skills required of post-secondary study as well as academic concepts (Krashen & Brown, 2007). Most importantly, it underscores that developing academic language proficiency is a gradual, protracted process (Collier, 1987; Corson, 1997).

Cummins (1996) writes, “As students progress through the grades, they are increasingly required to manipulate language in cognitively demanding and context-reduced situations that differ significantly from everyday conversational interactions” (p. 58). Reading in both depth and breadth across a variety of genres and written modes of expression for a range of academic tasks, are key features of CALP. With every year of educational advancement in the K-12 school system, these demands accelerate, often outstripping ELLs’ abilities to independently develop the CALP-like proficiency required to compete academically with their monolingual counterparts.

Although widely cited, Cummins’ framework has more recently been called into question (Edelsky, 2006; MacSwan, 2000; Troike, 1984) for dismissing non-dominant and non-standard Englishes while further elevating the English of the privileged upper middle class. In response, Cummins (2008) reiterated that the “BICS/CALP distinction was not proposed as an overall theory of language proficiency, but as a very specific conceptual distinction that has important implications for policy and practice” (p 79). Indeed, within the context of this research, the BICS/CALP distinction is relevant, as academic language and low frequency vocabulary are required by university study and necessary for success in academia and the skilled workforce, both of which are communities that participants of this study want to join.

The distinction originally noted by Cummins between conversational and academic discourse is well documented by other scholars as well. Corson (1997), Hakuta, Butler & Witt (2000) and Ravid & Tolchinsky (2002) have all explored the differing characteristics of these two discourses. They all concur that conversational discourse is marked by high frequency words, with much repetition of words and phrases. Furthermore, conversational discourse is used in context-rich environments in which lived experiences are described or narrated. Academic

discourse, on the other hand, is characterized by lower frequency vocabulary and greater lexical diversity. The contexts in which it is used are more often abstract or context reduced, meaning that language itself is needed in order to construct mental models of complex ideas. Furthermore, academic discourse requires a facility with more formal register and proficiency with expository rhetoric.

While Cummins' framework is intuitive and has been highly influential, it has been criticized for asserting that academic language is inherently more complex or superior to conversational English (Bunch, 2006), which the continuum implies to not be "cognitive". It has also been rejected as overly dichotomous and rigid in its definitions of 'types' of language (Schleppegrell, 2004; Valdes, 2004). However, for classroom applications and assessment this understanding of academic language is useful in providing information about trajectories of student achievement.

Since Cummins first introduced this idea, new frameworks have emerged, such as that of Schleppegrell (2002), who describes the linguistic features of school language as being more explicit and authoritative, while demonstrating a register which is distinct from informal or interactional contexts. Schleppegrell further purports that the language of schooling is characterized by certain features, such as a high degree of structure and the nominalization of verbs and embedded clauses. While the acquisition of this language can be burdensome for all students, those who speak minority languages or non-standard dialects of English may have less exposure to the language of schooling and greater discontinuities between it and their daily language use. All students, especially language learners, require explicit instruction and practice to acquire academic registers (Enright, 2011).

Despite there being no consensus on the amount of time it takes to become thoroughly proficient in English, or even how to define proficiency, the most widely-cited experts (Cummins, 1981; Collier & Thomas, 1989; Hakuta, Butler & Witt, 2000) agree that it is a protracted process, and Table 2.1 briefly outlines their findings. The most salient of these findings is the realization that ELLs in the K-12 system are racing to beat the clock. The path traversed by language learners is long, winding, and fraught with obstacles. ELLs are essentially doing double the work of their monolingual peers, as they are both learning a new language and learning in a new language (Short & Fitzsimmons, 2007) while in constant pursuit of a moving target (Hakuta, Butler & Witt, 2000): their rapid-paced and largely monolingual peers. Unfortunately, later arriving students do not have the luxury of time to catch up to monolingual peers against whom they will compete at university and in the workforce, although as later described, they may have well-developed L1 language skills and metacognitive and academic strategies that they can transfer into their L2.

Table 2.1

Major Findings on the Rate of Second Language Acquisition

Author, year	Oral Fluency	Academic Language Proficiency
Collier, 1989	2-3 years to reach the 50 th percentile in math and decoding	4-10 years depending on AOA and L1 education to reach 50 th percentile in language and vocabulary
Cummins, 1981	1-2 years to attain conversational fluency	5-10 years to attain academic language proficiency
Hakuta, Butler & Witt, 2000	3-5 years of schooling to attain oral proficiency	4-7 years or even up to 10 years for students without formal L1 schooling to attain academic English proficiency

Over the years, Thomas and Collier (1989; 1997; 2002) have done what is the most comprehensive research in regards to the length of time it takes an LM student to attain native-like proficiency, which they define as reaching the 50th percentile on standardized testing. Their over-arching findings indicate that L1 proficiency has the greatest impact on English acquisition, even when controlling for country of origin and SES. Thomas and Collier's definition of proficiency is largely based on performance on standardized tests normed to a monolingual population. This level may not be sufficient for the bulk of Canadian immigrants who have university aspirations: the 50th percentile of all students is not enough for university admittance and success, as it is the upper quartile of students who have university aspirations; similarly, the linguistic demands of university assume a greater than average proficiency in the language, with first year textbooks often written beyond a GE 16 level.

Other scholars (Genesee, Lindholm-Leary, Saunders & Christian, 2006; Jiang & Kuehn, 2001; Lanauze & Snow, 1989; Schoonen, et al., 2003) have also shown that a student's L1 proficiency positively correlates with his or her L2 proficiency, because those with a solid understanding of their L1 tend to use their understandings and skills to aid in the development of their L2 (Lanauze & Snow, 1989). In other words, a proficiency with one's L1 that has stagnated or atrophied, which is often the case with LM students, can be a hindrance to a comprehensive development of L2.

This notion of the influence of L1 on L2 has been conceptualized by Cummins (2000) in his Common Underlying Proficiency (CUP) Model found in Figure 2.3. This model demonstrates that much knowledge and many skills are shared or can transfer between languages: a person who has learned to tell time in his or her L1, for example, will not need to relearn the concept of telling time in additional languages, rather he or she will only need to learn

the associated vocabulary. Figure 2.3 uses an iceberg model to illustrate that on the surface languages may appear to be distinct, but in reality much of what language ability entails is not apparent, but transfers to languages subsequently acquired.

Again, this theory is not without its critics. MacSwan (2000) and Edelsky (2006), in particular, point out that positive L1 and L2 correlations are not necessarily reflective of language ability, rather they indicate that much of the measured transfer between the languages is in test-taking and academic skills: a student who is well-versed in what Edelsky labels SIN (Skills in Instructional Nonsense) in one language is likely well-versed in such “nonsense” in additional languages. While the larger issues surrounding the validity and need for academic language are debatable, students bound for university must commit, rather than atone for, these “SINs” if they are to succeed in the academic world. While Edelsky encourages the questioning of commonly accepted constructs, it is my opinion that she fails to understand that what is required of academic study is much more than “instructional nonsense” and embodies nuanced and critical thought necessary for successful engagement with academic materials.

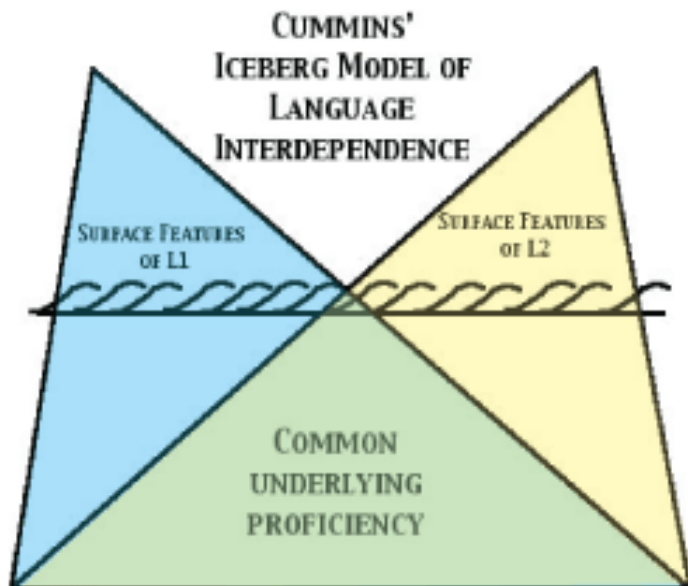


Figure 2.3 Cummins' model of underlying proficiency

While on the surface, different languages appear distinct, there are many shared similarities between languages. Concepts, for example, do not need to be learned separately, and can be transferred between languages.

Aside from L1 education and proficiency, there are many other critical variables that contribute to the acquisition of the advanced and academic language that is necessary for post-secondary study. Student performance is often dependent on schooling experiences, and as many high school teachers are not trained to work with ELLs (Foscolos, 2000), EAL-coded students may find themselves at a disadvantage when accessing targeted instruction.

All learners are unique; each one has his or her own previous educational experiences and L1 abilities. Add to the mix home language, schooling experiences, intrinsic motivation, academic and professional aspirations, parental education, SES, AOA (and, by proxy, educational attainment) or lengths of residency (LOR) in Canada, and access to quality EAL education, it is nigh impossible to extricate the variables or predict the language-learning

trajectory of an individual learner. Only this is certain: in regards to the infinitely complicated process of reaching levels of proficiency required of post-secondary study: acquiring academic language is a complex, protracted, and critical endeavour.

2.6. Academic Skills and Strategies Necessary for University Success

The demands of tertiary level study are manifold. The TESOL Standards document (1997) asserts that

To achieve academically, students will use English to follow oral and written directions both implicitly and explicitly, request and provide clarification, request information and assistance, explain actions, negotiate and manage interactions, and ask and answer questions. They will also use English to obtain, process, construct, and provide subject matter information in written form. They will retell information, compare and contrast information, persuade, argue, and justify, analyze, synthesize, and infer from information. They will also hypothesize and predict, understand and produce technical vocabulary and text features according to the content area. (cited in Valdes, 2004, p. 121)

This illustrates that the requisites of entering into academic study are many and varied; it is clear that the negotiations required in a university setting are far more challenging than those of daily social interaction. Such advanced levels of linguistic proficiency and academic literacy require explicit and generous amounts of instruction time and principled exposure.

This is not to say that all tertiary needs are strictly linguistic. Students must also learn to cope with newfound independence while managing their time, making priority-based study plans, and dealing with deadlines. Critical thinking, recognizing and avoiding academic misconduct, and managing time are also essential skills. Oxford, (1990, p. 17) for example,

describes in detail the main strategies that can be employed to effectively improve learning outcomes, and they are not all strictly academic. She divides the strategies into two broad categories: direct and indirect. The direct strategies are divided into three headings: memory, cognitive, and compensation; these are the most commonly recognized academic strategies such as reviewing notes, creating mental links, developing structures to organize information, and making good inferences. The indirect strategies include metacognitive strategies, such as organizing and evaluating one's own learning, affective strategies such as lowering one's anxiety, and social strategies, which include communicating with others and asking appropriate questions.

A needs analysis conducted during the first phase of this project demonstrated what Geoff Pinchbeck and I, as EAPP instructors, suspected: the demands of tertiary level study include a wide variety of writing tasks such as essays, reports, and independent research. Students may face additional difficulties coping with note taking and information-synthesis during exam preparations, as well as presenting their work, managing their time, and keeping up with copious amounts of reading. Table 2.2 (Roessingh, Pinchbeck & Crossman, 2010) outlines just how wide-ranging the demands are that students across disciplines face upon entrance to tertiary study; these examples reflect the types of assignments, and the academic and social expectations that all first year students can expect to face.

The substantial amount of reading required in university courses is notable, as is the level of difficulty apparent in first year textbooks. Using the Flesch-Kincaid formula (Kincaid, Fishburne, Rogers & Chissom, 1975) to assess reading level, a brief survey undertaken as part of the iEAP needs analysis, found that first year textbook readings ranged from GE 11.28 in Business to GE 17.48 in Psychology. While the reading levels of first year texts are challenging

for many students, including monolingual speakers (Compas, Wagner, Slavin & Vannatta, 1986; Keup, 2006; Cote & Allahar, 2007), ELLs who arrive at university with only marginal scores in the Alberta provincial ELA 30-1 diploma examination, will find these materials especially daunting (Roessingh & Douglas, 2012). The Flesch-Kincaid is a rough estimate of reading level at best; it uses a formula based upon word and sentence length to determine the GE levels; however, it is not only these factors that indicate whether a reading is challenging. The lexical density, the syntactic complexity, the sophistication of the content matter, and the volume of reading within a limited time frame, are not directly accounted for in the readability formula. Nevertheless, it provides a straightforward and accessible starting point for determining the baseline levels of reading materials.

Table 2.2

Requirements of Post-Secondary Study

Writing	Reading	Listening	Speaking	Other
<ul style="list-style-type: none"> • Short answer exams • Journals, diaries, learning logs • Term papers, short & extended essays • Summaries, responses, syntheses • Lab, field trip, experience reports • Abstracts • Articles • Book reviews • Critiques • Essay exams • Feasibility reports • Self-evaluations • Discussion boards • Peer feedback • Email (faculty, administration, peers) • Take home exams • Table explanations • Forms, paperwork • Problem sets • Case studies • Computer tasks • Portfolios • Flow charts • Reference lists 	<ul style="list-style-type: none"> • High volume • Textbook • Journal articles • Literature • Newspapers, magazines • Student newspapers • Instructions, rubrics • Lecture notes • Online student centre • Internet • Emails from faculty, administration, peers • Annotated bibliographies • Multiple choice questions • Graphs, charts, other visual representations • Professional correspondence • Online course materials, i.e. D2L 	<ul style="list-style-type: none"> • Course lectures • Guest lectures • Workshops • Tutorials • Seminars • Discussion • Groupwork • Podcasts • Campus television • Interacting with faculty, administration, peers • Videos • Online courses, i.e. Elluminate, video conferencing 	<ul style="list-style-type: none"> • Formal presentations • Oral reports • Tutorials • Seminars • Class and group discussions • Asking questions • Interacting with faculty, administration & peers • Social events 	<ul style="list-style-type: none"> • Stress management • Time management • Independent living • Exam skills • Autonomous learning • Critical thinking • Evaluation of research sources • Goal setting • Online courses • Blended learning • Networking • Clubs • The Student Success Centre • The Students Union • The Fitness Centre • Multiculturalism and diversity • University rules and procedures • Part-time jobs • Volunteering • Campus culture

The preeminence of meeting linguistic requirements is also outlined by Kilbride and D'arcangelo (2002) whose survey of the needs of immigrant students at a Canadian college

found that the institution was only partially meeting ELL needs, and linguistic needs in particular were not being sufficiently addressed. Language support was found to be the most highly reported unmet requisite for the 146 students surveyed. In addition, students on the whole felt that they did not have access to the support necessary for their academic success.

Although there are innumerable factors that determine a student's university performance, there are some particularly important areas upon which to focus. University subject matter is difficult, and learning how to manage time and understand the requirements can be a challenge for all new entrants. When these challenges are coupled with linguistic unpreparedness, the learning curve is that much steeper. The next section will outline one key area of importance that exemplifies the linguistic demands of post-secondary study: vocabulary.

2.6.1. Post-secondary vocabulary demands.

Vocabulary knowledge plays a crucial role in educational achievement. A precise and comprehensive vocabulary is an integral part of reading comprehension and writing proficiency. The vocabulary required of a competent user of academic English exhibits both breadth and depth of word knowledge and demonstrates a facility with lexical items that are mainly encountered in writing. While breadth refers to the scope of a lexicon, or the raw number words recognized and used by a speaker, depth describes how well a word is known and applied. Academic and more formal lexica contain largely Greco-Latin root words (Corson, 1997) that are not typically found in conversational discourse. Again, conversational fluency is not sufficient for the requirements of academic proficiency.

Beck and McKeown (1985) describe a three-tiered system of vocabulary knowledge. The first tier of words contains those that are very frequent and used in everyday conversational exchanges. The second tier of words is comprised of those that are still relatively common, but are also necessary for comprehension; these words often have Greek and Latin roots. These tier

two words are ideal targets for instruction but are often overlooked as instructors focus on tier three words which are domain-specific and much less frequent. While this is an overall framework of three main word types, it does not measure vocabulary knowledge or provide refined information about vocabulary use or instruction.

Although there is a general consensus in the research community on patterns and rates of vocabulary development, it is surprisingly difficult to quantify vocabulary knowledge. How many words are needed, and how many words are, on average, known, is debatable, largely due to methods of calculation; for example, knowledge of homophones or symbolic or idiomatic meanings of words can skew calculations. There has been much research on the subject and many (Cervatiuc, 2007; Goulden, Nation & Read, 1991; Milton & Meara, 1995; Zechmeister, et.al, 1995) have tried to accurately calculate vocabulary size required for first-year university study demands. Figures ranging between 12,000 and 20,000 word families have been suggested.

A number of widely cited studies (Biemiller & Slonim, 2001; Goulden, Nation & Read, 1991; Moe, Hopkins & Rush, 1982; Murphy, 1957) show that an average monolingual English speaker has learned about 5000 words, or 2500 word families or root words, by age six or seven and an additional 1000 word families are, on average, acquired for each year of formal education. There is, however, a significant range among monolingual youngsters. Hart and Risley's studies (1995, 2003) illustrate an enormous gap between the lexical knowledge and usage among young children from different social classes at age three. Children of a high SES background demonstrated an average vocabulary of 1116 words, compared to a mere 525 words for children from welfare class families.

There are strong positive correlations between scores on vocabulary size, depth of vocabulary knowledge, and reading comprehension (Qian, 1999). Furthermore, a reader must

understand at least 95% of the words encountered in any given text to minimally comprehend it (Laufer & Ravenhorst-Kalovski, 2010). This means that when even 5% of the words are unknown, reading and understanding will be rather taxing, but still possible. An understanding of more than 98% of the words is preferred, and is considered to be the optimal threshold of lexical coverage for independent reading comprehension (Laufer & Ravenhorst-Kalovski, 2010). These percentages may appear high, but corroborate earlier findings (Hu & Nation, 2000; Laufer, 1992; Nation, 2006), and are based on a study involving 745 participants who were given reading comprehension tests, profiled with Lextutor (Cobb, n.d.), along with Nation's Revised (1983) Levels Test. In order to understand first year university texts at optimal levels, a person must have a vocabulary of upwards of 16,000 word families, a level which very few ELLs have attained in English or in their L1 given that 16,000 words represents twelve years of formal education and complete immersion in the language. As a comparison, Nation and Waring (1997) report that the average university educated monolingual has a vocabulary of around 20,000 word families.

Cameron (2002) showed that the LM students, who were of a mean age of 14.6 and had ten years of English-medium education, had gaps in the first 3000 word families and experienced serious problems with 5000 most common word families and beyond. Fox (1987) found that at the time of the integration of EAL students into mainstream classes, ELLs had an average vocabulary of just 2100 words, which is especially difficult for later arrivals with limited time left in school and reflects a BICS command of the language. Such levels of vocabulary are certainly inadequate for the comprehension of materials that presuppose the knowledge of at least 16,000 word families. However, despite this apparent "lack", as we have seen in previous sections, these late arriving students can likely compensate because of their better-developed L1

and years of schooling within their L1, which can provide them with the language and concepts that can be transferred into English.

Competence in daily interactions can make invisible the actual level of vocabulary a student possesses. Listeners' judgment can easily be obscured in communication as they focus on the content of the conversation rather than the depth or breadth of word usage. It is through testing and the analysis of writing samples that more measurable information about a person's linguistic ability or production can be collected. In addition, there is a significant correlation between student vocabulary profiles and grades: studies (Douglas, 2010; Engber, 1995; Morris & Cobb, 2004) have shown that vocabulary profiles based on lexical breadth are correlated with holistic grades assigned to their work; that is, higher overall grades are awarded to writing samples with greater lexical richness and less reliance upon high frequency vocabulary.

A wide assortment of word choices produced within a writing sample indicates that the writer has a vast repertoire of words at his or her disposal. Knowing a word is much more than merely regurgitating its definition or its direct translation. In the field of academic writing it means being able to thoughtfully choose and accurately produce a word. Nation (2001, p. 27) provides a framework for understanding word knowledge, which contains nine aspects of knowing a word and illustrates the depth of awareness. Table 2.3 outlines and adapts his framework and demonstrates the multifaceted nature of word knowledge. For advanced language students in an academic setting, the superficial comprehension of a word's meaning or translation is inadequate for appropriate recognition and production.

Table 2.3

Summary of Nation's Framework of Word Knowledge (1997)

Form	Spoken	Recognition	How does the word sound?
		Production	How is the word pronounced?
	Written	Recognition	What does the word look like?
		Production	How is the word written or spelled?
	Word Parts	Recognition	What parts of the word are recognizable?
		Production	What parts of the word are needed to convey meaning?
Meaning	Form and Meaning	Recognition	What's the meaning of this word form?
		Production	What word form will express the intended meaning?
	Concept and Referents	Recognition	What is included in the concept?
	Associations	Production	What words does the concept refer to?
		Recognition	What other words does this word conjure?
		Production	What other words could be used?
Use	Grammatical Functions	Recognition	How does the word occur according to language patterns?
		Production	How must the word be used according to language patterns?
	Collocations	Recognition	What words occur with this word?
		Production	What words do not go with this word?
	Constraints of Use (i.e. register, frequency)	Recognition	Where, when, and how often is this word seen?
		Production	Where, when, and how often should this word be used?

The effortless access to and retrieval of a vast lexicon and its accurate use are key features of academic writing and demonstrate both lexical breadth and depth. It has been demonstrated that the demands of university level reading and academic writing are abundant. As many ELLs exiting the K-12 system are arriving lexically unprepared for university study, vocabulary is a very important part of their academic preparation.

2.6.2. Non-academic factors of success in university.

When students arrive at university, their expectations are frequently ill formed and they may have difficulty envisioning the realities of first year post-secondary study (Smith & Hopkins, 2005). When faced with the challenges of academic study and responsibilities, learners will employ a variety of coping mechanisms, with varying success.

While many students resort to strategies such as plagiarism, academic institutions find this undesirable and have many policies in place to avoid such acts (Bermingham, Watson & Jones, 2010). In the past decades, incidents of plagiarism have increased dramatically, precipitated by greater access to pre-written material on an unlimited number of subjects (Owens & White, 2013) and a lack of preparedness for university rigours. There are, however, other strategies that are more conducive to long-term success at university, such as the employment of learning strategies and by demonstrating tenacity, or grit (Duckworth, Peterson, Matthews & Kelly, 2007).

Learning strategies are important in fostering the acquisition, storage, and retention of knowledge for all students, but are particularly important for language learners (Oxford & Nyikos, 1989), and not only help with general learning, but also with the reduction of anxiety in the classroom (Mohammadi, Biria, Koosha, & Shahsavari, 2013). Good students have a large repertoire from which to draw appropriate strategies in a variety of educational situations. The benefit of learning strategies is that they are ultimately very teachable and can be effective for all students, whereas other factors such as attitude or motivation are more difficult to instill. A more in-depth discussion of the various types of language learning strategies can be found in Chapter Four in the description of the instruments used in this study.

Although academic strategies and intelligence are extremely important factors in predicting success, there is another non-cognitive strategy that is highly predictive of

achievement: grit (Duckworth et al, 2007), or follow-through (Willingham, 1985). Grit is defined as the passion and perseverance for long-term goals. In studies of prodigies (Bloom, 1985), it has been demonstrated that those who were most successful worked tirelessly at developing their talents over the period of many years and were not merely blessed with an innate aptitude. While grit might be intrinsic to some extent, it can also be taught in the form of goal-setting, and long-term planning. Grit can be developed by parents and teachers through encouraging not just intensity, but also stamina, while providing learners with the opportunity to predict obstacles and failures, and develop methods to manage and mitigate them (Duckworth et al., 2007). Like learning strategies, grit and the ability to focus on long-term outcomes can be taught and can greatly help students to better transition into university.

2.7. Importance of Curriculum Design

In educational contexts, the word “curriculum” means many things to many people; some view curriculum as an individual course, while others interpret it to be the entire educational environment. The notion of ‘curricula’ developed from the need to provide students with education that would lead to the most efficient acquisition of knowledge, and it incorporates the idea of planning and designing learning tasks around the ultimate goals of the program. The methods employed in various curricula are wide-ranging.

In the mid twentieth century, behaviourism, popularized by Skinner (1965), was the curricular model of choice and was found in many fields of study. The teacher imparts knowledge upon the students, and classes are predominantly lecture-based. The approach favours carefully planned input, whereby the students’ learning outcomes are strongly influenced through a range of motivational, feedback, reinforcement, and reward techniques. This method is often

associated with traditional learning and teaching practices, and is in great contrast to the approaches that gained in popularity toward the end of the twentieth century.

Following societal changes, educators began questioning the old methods and the pendulum began to swing in the opposite direction towards a socio-cultural model (Freire, 1985; Giroux, 1988) where meaning is constructed by students, and knowledge is viewed as subjective and mediated by social experiences (Dewey, 1929; Vygotsky, 1978; von Glaserfeld, 1996). This framework favours a fluid, open-ended, and emergent approach to education and places high value on lived and daily experiences. Task- and inquiry-based learning are examples of a socio-cultural approach.

While these socio-cultural methods still are prominent in contemporary educational contexts, the pendulum is again swinging towards a middle ground and there has been a call (Roessingh & Chambers, 2011) for a moderate approach that draws from both frameworks; for example, pre-determined goals and some relevant input is integrated into project-based methods where students are able to construct, rather than merely receive, knowledge.

This middle ground approach is rooted in two distinct methodologies but is conducive to language, content, and mixed level instruction. Effective learning and teaching require a course plotted with intention and a clearly defined goal. A curriculum designed for monolinguals is not appropriate for ELLs: the vocabulary could be overly challenging, pushing the concepts further out of reach. It is vital that a curriculum be designed not only to meet students where they are, but also to guide them to where they want and need to go.

Academic language, its vocabulary, nuance, grammar, usage, and register require a concerted effort and directed focus (Cline & Necochea, 2009), and acquiring advanced language skills requires well-trained instructors and thoughtfully designed curricula and materials

(Enright, 2010). Language instruction in the first years of schooling focus on decoding, spelling, and printing skills, which ELLs achieve with relative ease, allowing them to cope with the demands of the early learning environments. Children spend most of their time outside of school and acquire most of their skills extramurally (Walberg & Wallace, 1992), and children learn much of their vocabulary at home; in the case of LM students, the instruction must provide the lexical input in English that is not received at home.

The importance of thoughtful and intentional curriculum design cannot be overstated, and it is the cornerstone of effective courses resulting in tangible learning outcomes. In order to create well-designed curricula, it is important to follow a principled design process incorporating all the relevant elements, ensuring that all pieces are considered and integrated appropriately. This section outlines some of the more salient aspects of language curriculum starting with the need for good design.

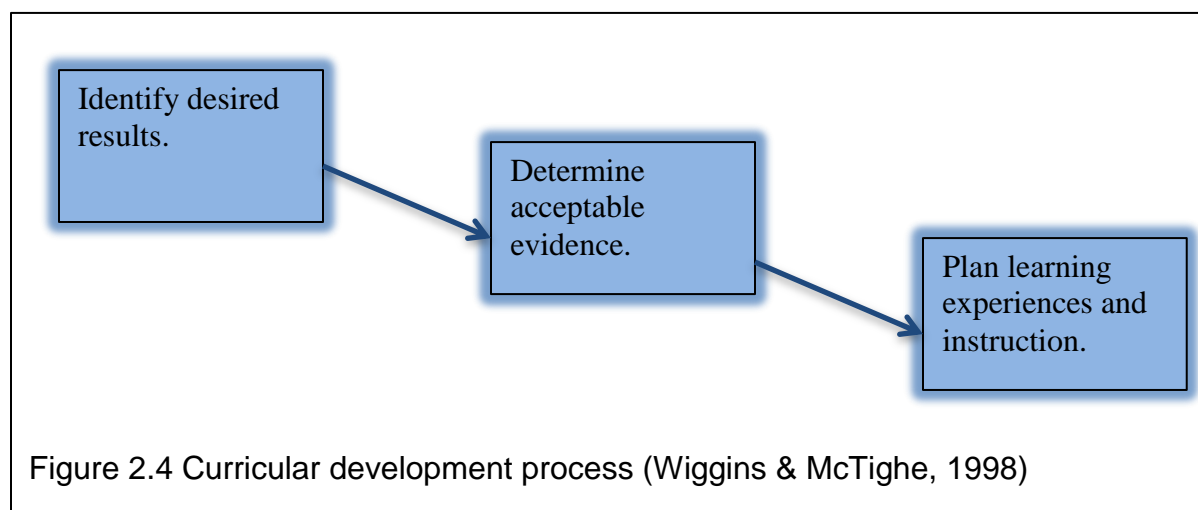
2.7.1. Intentional design: three contemporary approaches.

In recent years, backwards design has gained in popularity. This method, while quite general, can be applied to a wide range of courses and contexts and is not specifically oriented to the language classroom. Described in detail by Wiggins and McTighe (1998), the main premise of this approach is to start with the desired outcomes and design the curriculum around them. While the pre-determined goal setting is behaviourist in nature, the methods employed to encourage learners to discover these goals is constructivist.

Only once the goals have been thoughtfully established can the design process begin. To ensure that the development work proceeds in the right direction and with intention, methods of evaluating the accomplishment of these goals are developed. It is especially crucial, according to the authors, that curriculum developers be able to assess whether or not their target outcomes have been met. Only upon determining evaluation methods, the process of designing materials

and lesson plans can finally begin. Clearly, there are benefits to such an approach, and it is principled, result-driven, and guides learners to uncover and reach the goals themselves. Figure 2.4 describes the process outlined in Wiggins and McTighe's (1998, p 9) book, *Understanding by Design*.

Much as in social constructivist approaches, backwards design tends to value and encourage high-level thinking and a deep understanding of concepts. Wiggins and McTighe's book, *Understanding by Design* (1998), is replete with useful information for curriculum developers and they make a very sound argument for the efficacy of backwards design. However, one major drawback to this approach is that it is not especially dynamic or flexible. It is possible that in an active classroom or even during the design process goals may change for valid reasons; for example, it is possible that the materials are simply not available or feasible to create for the classroom given the original goals. Restrictions on development time or interference from school boards might also hinder the process. A stubborn commitment to the original plan might not always be reasonable or intelligent.



Unlike the backwards design approach of Wiggins and McTighe (1998), Nation and Macalister's (2010) method was developed specifically for the language classroom. Their model for designing language curricula differs significantly from the backwards design approach in that it does not demand a specific starting point. In fact, it is only at the end of their 2010 book, *Language Curriculum Design*, that the authors begin to talk about entry points into the design process. Their premise is that after understanding and briefly evaluating all of the components in the design framework, developers can decide both where to start and what path to follow based on their own situations, time constraints, environment, and goals. There are numerous benefits to this approach due to its malleability and multiple entry points: however, this method requires a holistic understanding of the situation and can be overwhelming for inexperienced designers or those working under inflexible time or budget constraints.

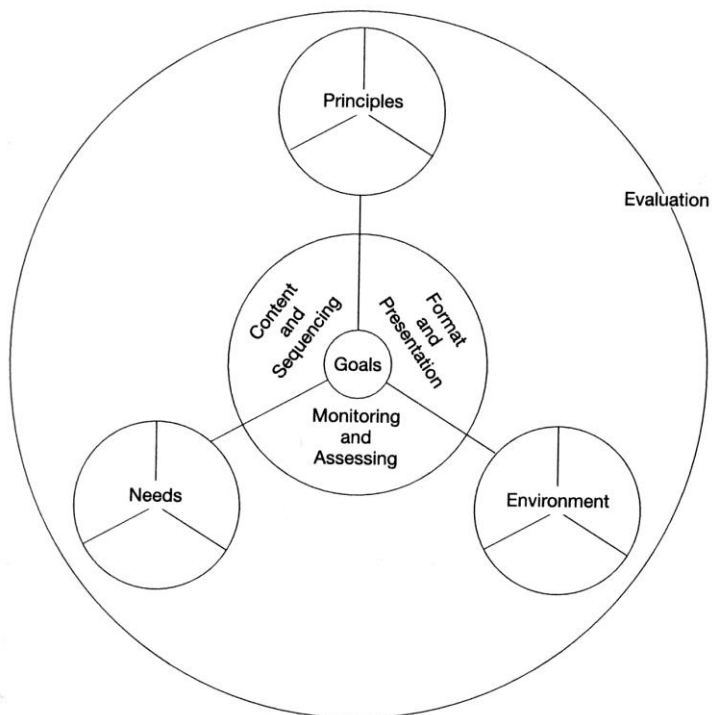


Figure 2.5 Curricular design process (Nation & Macalister, 2010)

Each of these steps in the curricular design process is related and intrinsic to its development. All aspects of the design should centre around the goals of the curriculum and evaluation should permeate the design process.

As illustrated in Figure 2.5 (Nation & Macalister, 2010, p. 5), this approach also highlights goals and evaluation, much like backwards design. Goals are found at the centre of the schemata because everything else should revolve around the objectives and desired outcomes of the design. Likewise, evaluation permeates all elements of the curriculum. Some macro-level considerations are “determining needs”, “the guiding principles”, and “the environmental constraints”, and some micro-level components are “format and presentation”, “content and sequencing”, and “monitoring and assessing”. All of these components are interdependent and synergistically connected.

Finally, the locally developed Learning by Design (LBD: Roessingh, 2007) template was conceived specifically for the EAL classroom and shares many of the elements of Nation and Macalister's conceptual framework, in that it is dynamic and allows for multiple entry points, but it is most useful once an environmental scan (or needs assessment) has been done. LBD provides a curriculum planning template (see Figure 2.6) and is freely available online. Interactive tools on the website force the intentional consideration of key design elements that must be embedded in content information in order for deep learning to occur.

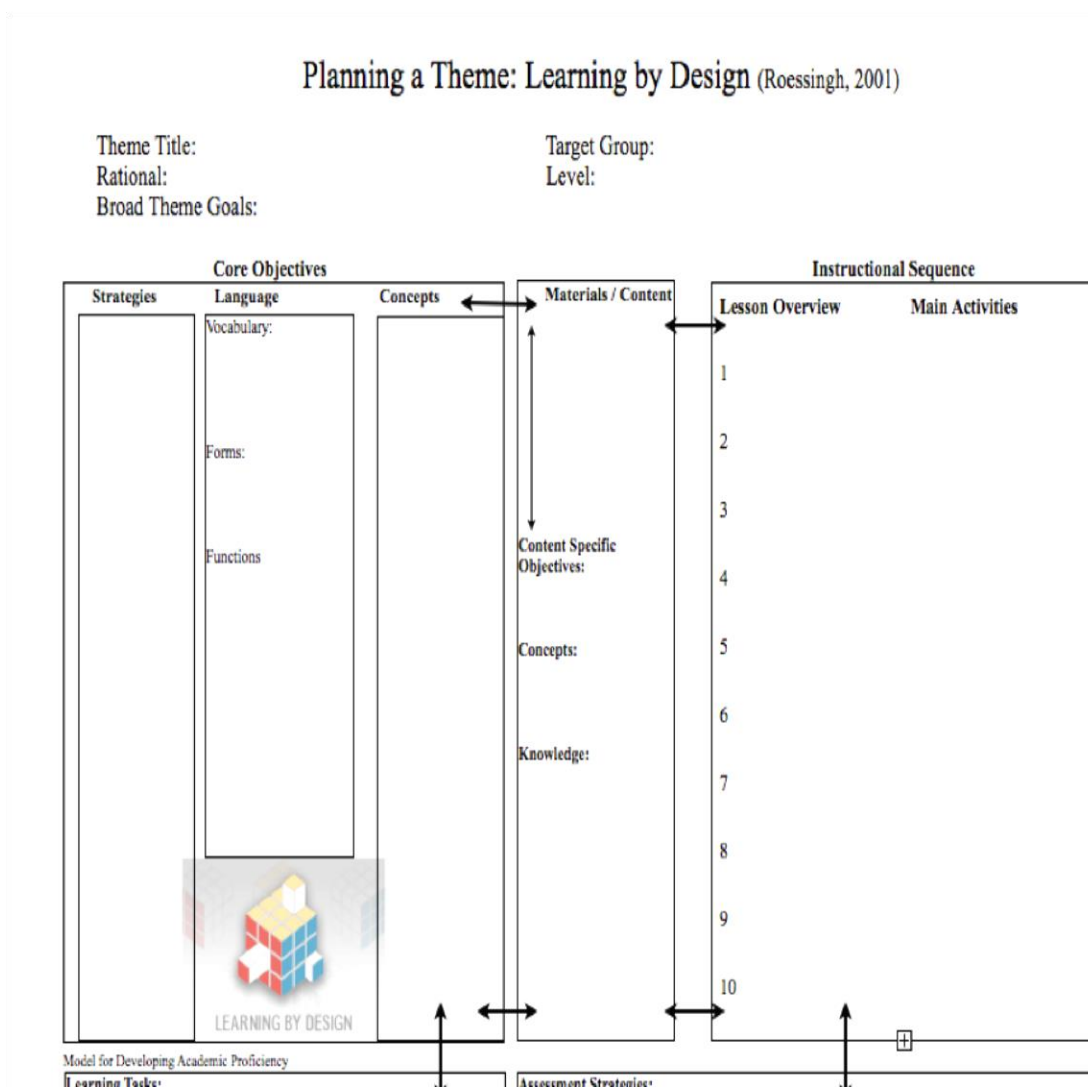


Figure 2.6 Learning by Design template (Roessingh, 2001)

Like Nation and Macalister's (2010) approach, multiple entry points into the design framework make it convenient and easy to make progress with the "messiness" of the design process, and it provides a good visual with appropriate space for the actual design process. The goal is to produce a curriculum blueprint that is well integrated, demonstrates a sense of integrity across the components, and provides sufficient specificity, so that anyone working with the blueprint can use it as a guide for instructional planning and decision-making. The framework is learner centered and flexible, yet tightly integrated, explicit, and contextualized. It is based on a principled, eclectic view of learning, drawing on elements from across the ideological spectrum in a balanced, learner-centered approach to curriculum design.

When implementing LBD, it is helpful during the early stages of development to ensure that all aspects of the design process are appropriately considered and nothing is overlooked. The framework provides a roadmap for the remainder of the process and is easy to use for both novice and experienced curriculum developers. It was the LBD curriculum template that was used for the design of the curriculum around which this study centres, although the other two approaches were influential. Further information and a description of the process undertaken can be found in Appendix M.

2.7.2. Sustained content-based instruction.

Language is used to communicate meaning, but it is through the communication of meaning that language is also learned. Overwhelmingly, K-12 classrooms treat language and content as distinct entities; although both form and function are part of a typical lesson or course, the two necessary aspects are not often presented in complementary ways. All students are expected to become familiar with a great deal of content in the K-12 system. LM learners may fall behind their monolingual counterparts because of linguistic challenges as they attempt to focus on the

content, and over time they are unable to access content information and may resort to ineffective coping mechanisms such as memorizing vast amounts of information without comprehension. These compensatory strategies may lead to inefficient learning, whereby both content and language are compromised.

In traditional “grammar-translation” or behaviourist approaches, language is often decontextualized; classes tend to focus on learning function *or* form rather than using function *to* learn form (Van den Branden, 2006). It is form, or language, that most often suffers as teachers are more concerned with students acquiring content, while assuming that language will naturally follow. However, without direct language instruction, much vocabulary, grammar, and usage can go unnoticed and unlearned by the students. For this reason, they may be unable to independently focus on the language features. It is both critical and effective that an instructor point out salient grammar and vocabulary items (Shin, 2009).

Content-based approaches, on the other hand, have many benefits (Stoller, 2008): the input is meaningful, vocabulary and forms are recycled, motivation is increased, anxiety is decreased, and subject-area and linguistic knowledge are more readily acquired. Research has shown that language learned along with content can be acquired more effectively (Gaffield-Vile, 1996; Grabe & Stoller, 1997; Lyster, 2007) than language taught discretely. When specific and carefully chosen language is presented, practiced, and framed within an interesting and informative lesson, it is made both meaningful and explicit and acquired more naturally. Another obvious benefit to content-based approaches is that they are both language-rich and discourse-rich, which fosters more exposure to, and the acquisition of, academic language proficiency (Grabe & Stoller, 1997).

Another advantage of a content-based curriculum is that because students are learning language within an interesting context, they are motivated by the content they are learning along with language. Certainly students who see themselves as capable learners will be more motivated to further challenge themselves and “lose themselves” in the materials. Effective learning often takes place when it is not forced or even obviously occurring. Csikszentmihalyi (1990) has shown that in an optimal learning environment a state of “flow” can occur. A prime example of this is being drawn into a book without distraction from things external to the moment, such as counting down pages or looking at the time. Amongst other things, this state occurs when a task is relevant, interesting, challenging enough, intrinsically motivating, and leads to more inspiring activities. Content-based instruction provides opportunities for experiencing flow and the development of intrinsic motivation (Grabe & Stoller, 1997). By choosing content closely related to students’ intended fields of study, students are exposed to the language and content resources for effective and apt language acquisition.

The “sustained content” approach to language instruction is very similar to content-based instruction except that over the course of a semester just one theme is developed. Sustained content-based instruction shares such benefits while also allowing students to participate more fully in the cycle of acquiring content knowledge and thinking critically about what they have learned. As a course progresses and students gain richer exposure to and knowledge about the topic, the materials become increasingly accessible (Carson, 2000). Furthermore, sustained content-based instruction more closely mimics mainstream classes in that one topic is developed throughout the duration of a course and is cumulatively assessed (Carson, 2000). Activities can likewise better reflect mainstream activities such as lectures, oral presentations, and synthesis (Pally, 1999). This approach is well suited to a bridging program prior to university because it

aligns with typical university course formats, while providing language support (Gaffield-Vile, 1996).

One potential disadvantage to sustained content-based instruction is that the instructor must straddle two worlds by navigating and understanding both the content materials and linguistic instruction at an advanced level. This often requires collaboration between disciplines, which can be challenging in terms of logistical and institutional constraints (Bunch, Abram, Lotan & Valdes, 2001).

There are a few different content-based frameworks that may privilege content over language (Mohan, 1990) or treat SLA and academic achievement as being inextricably linked and sharing equal status in terms of educational objectives (Lyster, 2007). There is yet another version wherein content is the vehicle rather than the driver (Roessingh, Kover & Watt, 2005) and language learning is the primary curricular goal. This is accomplished through direct, intentional, and explicit instruction of thoughtfully chosen target language through content that is interesting and relevant to the learners. It is this final approach to curriculum design that is the most relevant to the intensive language learning that comprises this research. More detailed information and description of how this was applied to the development of the iEAP curriculum is described in Appendix M.

2.7.3. Materials.

Strong teaching and learning materials especially support both content-based and sustained content-based approaches. It is course materials that interest the students, provide the vehicle for both language and content, and hold the curriculum together. Four main categories of material types include:

1. *Authentic materials chosen* based on their thematic, linguistic, and practical relevance to the curriculum design. These materials should be carefully selected as they need to meet a

variety of sometimes disparate criteria: they must fit into the context and add to the content of the course while also containing language with an appropriate amount of comprehensibility, teachability, and difficulty.

2. *Authentic materials adapted* to meet necessary criteria. For example, a thematically relevant and interesting article can be adapted to become more linguistically accessible. Likewise, target vocabulary and grammatical structures can be thoughtfully and carefully “planted” into a text to reinforce specific language goals of the course.

3. *Original materials created* to meet the needs of the curriculum and students. There are many instances where a suitable example of an authentic or modified text cannot be found: perhaps the topic is too obscure, or samples of excellent assignments do not yet exist. Although using or modifying authentic texts is the most straightforward method, teacher-prepared materials have many unrivaled advantages (Roessingh & Johnson, 2004). They allow instructors to take a principled approach to designing the most motivating, meaningful, natural, and engaging materials for the specific needs of their students. They further allow the conscientious recycling of language skills and vocabulary. On the other hand, obviously instructor-developed materials entail an investment of time and knowledge that may not always be practical or possible. While teaching language through content requires that the instructor be well-versed in the content area (Mohan, 1979), designing materials in the subject area requires a level of expertise in the field of study.

4. *Commercial materials* created and published explicitly for instructional purposes. Textbooks, trade books, and multimedia supplements are included in this category. These can be convenient for instructors as they are often accompanied by support materials, such as handouts, lesson plans, and quizzes. It can, however, be difficult to use these resources well in designed

curricula. Furthermore, their costs may be prohibitive and the quality of these resources varies greatly.

Regardless of where the materials originate, successful curricula need good materials that effectively expose students to language of an appropriate level. Vygotsky (1986) describes the ZPD (Zone of Proximal Development) as an integral to all types of learning. He first likened this to the more advanced language that a child can produce with the support and assistance of a sympathetic caregiver; it is the area between what the child can independently produce unsupported and what he or she can produce with a helpful guide. Likewise, individuals learn best when the materials are just beyond their current knowledge and ability, but can still be mediated. Such materials push students to challenge themselves and acquire more language, but are not so overwhelming that the task becomes unduly onerous. Furthermore, more difficult materials can be accessed if they are supported, or scaffolded, to make them more accessible, much in the way a sympathetic caregiver would assist a young learner. These scaffolds can then be slowly removed as the learner progresses.

Krashen (1981) expanded on this theory in the field of SLA with his “input + 1” ($i+1$) hypothesis, also known as “comprehensible input.” He argues that materials should be one step above the students’ current level of understanding to be simultaneously comprehensible and sufficiently challenging, while facilitating language acquisition and not causing undue frustration. The notion of $i+1$ is widely cited and generally accepted, although Krashen’s theories have been interpreted and realized in many ways. It has been demonstrated that $i+1$ can be challenging to apply to real world language classrooms, and it may be difficult to determine the optimal level of materials to match each student’s current level in practice (Payne, 2011). This

dilemma, and how it was handled in the iEAP curriculum design process, is discussed in Appendix M.

For students to best manage texts and other materials that are above their current level, they must have a cache of strategies to deal with new and challenging materials and situations (Oxford, 1990). The *CALLA* (Cognitive and Academic Language Learning Approach) *Handbook* (Chamot & O'Malley, 1994) is designed to help instructors and curriculum designers working specifically with ELLs to implement strategy instruction in their classroom. As its title implies, this handbook focuses on assisting students in acquiring academic language proficiency, content area knowledge, and learning strategies. Although their book is intended for relatively low level students, the strategies can also be helpful for those at more advanced levels of academic English. Many of the strategies can be applied not only to language learning, but to schoolwork in general, where students are seen as active co-constructors of knowledge and language learning is coupled with meaningful content. The inclusion of these strategies is particularly important for ELLs because they can help to mitigate vocabulary gaps and allow students to better approach linguistically challenging materials from a variety of angles.

Such methods allow students many opportunities to produce language, both in writing and speech, and producing language leads to a set of actions, which in turn leads to more language (Kowal & Swain, 1997). Learners can learn to recognize the gap between their current and target levels when producing language; this recognition, along with corrective feedback, can be an effective way to further acquire language (Lyster & Ranta, 1997; Swain & Lapkin, 1995). This pushed, or forced, output is in response to the popularity of Krashen's *i+1* theory. Rather than students merely ingesting large quantities of appropriate materials, Swain's (1985) notion of pushed output requires students to produce and use target language and vocabulary. This

technique can be especially effective for ELLs who are constrained by time. The following section discusses in particular the place of vocabulary instruction in a curriculum for local university bound ELLs.

2.7.4. Targeting Vocabulary for Instruction.

Some of the same tools used to profile vocabulary can be used to successfully identify target words for instruction (Coxhead & Byrd, 2007) so that they can then be purposefully included in the learning objectives of a language course. It is generally accepted that the most effective way of learning vocabulary is through extensive content-based reading with multiple exposures (Horst, Cobb & Meara, 1998). In other words, a student must be able to understand the content and read about it at length while repeatedly encountering the words in natural and varied contexts. However, the large time commitment to such extensive reading makes this approach unrealistic for most full time students. Due to the obvious logistical and time constraints, this is also not an ideal method for an intensive six-week course. Instead, multiple exposures to intentional vocabulary, coupled with directed study designed to accelerate acquisition, was more realistic for iEAP. Indeed, accelerating learning through direct instruction is crucial, especially in intensive curricula, which is outlined below.

2.7.5. Intensive language programs.

Intensive and accelerated programs are increasingly popular across study areas (Wlodkowski, 2003) despite criticism that they are less effective than traditional programs and may lead to student attrition (Fitzpatrick, Al-Qarni & Meara, 2008). In contemporary school settings, where time pressures are constant, many students and administrators in a wide range of educational settings favour shorter programs. The obvious benefit of an accelerated program is that a great deal of material can be covered in a small frame of time. While Wolfe (1998) claims that the learning acquired in such courses lacks breadth and depth and such approaches favour

convenience over rigour, peer-reviewed research (Wlodkowski, 2003) shows little difference in the gains made in traditional classes versus accelerated classes. In fact, individuals in accelerated courses appear to be more motivated by their rapid progress. Scott (2003) found that when students were motivated, the classes interesting and interactive, the instructor enthusiastic and knowledgeable, and the environment relaxed, more focused learning and stronger academic performance occurred. Just as in traditional course outcomes, what was found to be important for long-term retention of knowledge was future use in daily life. In an EAL context, too, Suárez-Orozco and Suárez-Orozco (2002) found that noteworthy gains can indeed be made in accelerated programs. In a controlled study of traditional and intensive courses, Kuscera and Zimmaro (2010) found that intensive courses received more positive student feedback than did traditional courses, even after controlling for class size and projected grades.

Serdyukov (2008) makes an important distinction between intensive and accelerated learning. He asserts that accelerated learning involves the compression of a longer course into a shorter duration by holding the course for longer class periods or more often, such as compressing a semester-long course into a week-long all-day course. Intensive learning, on the other hand, is not simply a case of speeding up learning by decreasing the duration of a course, rather intensive learning is designed to allow motivated students to effectively acquire knowledge and skills through the use of special techniques to maximize efficiency in learning through the use of carefully crafted instruction and curricular design. He further outlines typical intensive courses as, amongst other things, being specially designed, taught by trained instructors, attended by intrinsically motivated and engaged students, and using a sustained content approach in order to focus learning. In the case of this thesis study, the curriculum was

designed to be intensive in nature to cover a large amount of material in a brief amount of time, by using techniques to facilitate the rapid acquisition of language and concepts.

2.8. Restatement and Refinement of the Orienting Questions

The following two overarching questions reflect the conceptual framework outlined in this chapter, language acquisition (specifically SLA), academic language proficiency, academic and linguistic skills required of university study, and the demographics of local ELL students bound for university. Two broad research questions guide the research:

- *What are the proximal and distal effects of iEAP that are visible in a variety of measures that reflect on growth of English academic language proficiency and students' academic achievement over time?*
- *How do students perceive their participation in iEAP, and the impact of iEAP on their subsequent academic engagement at university?*

A subset of related, more detailed questions further guide this research and more adequately contribute to answering the overarching questions. The following sub-questions are investigated both independently and in combination to triangulate results and create a rich case description of the iEAP students and the course. Sub-questions 1-3 explore short-term quantitative outcomes, 4-6 address the long-term quantitative outcomes, and 7-9 present and explore the qualitative findings.

1. *What characterizes iEAP participant pre- and post-testing results on A. writing samples in terms of error rates, lexical profiles, and holistic grades awarded, B. the Gates-MacGinitie Reading Test comprising reading comprehension and general vocabulary, and C. the Productive Academic Word Test?*

2. *What characterizes the completed in-class and take home writing assignments of iEAP participants with regard to lexical profiles and instructor feedback?*
3. *What characterizes the oral presentations of iEAP participants with regard to lexical profiles and qualities?*
4. *What characterizes the academic performance of iEAP participants with regard to GPA?*
5. *What characterizes the academic performance of iEAP participants with regard to the number of successfully completed courses?*
6. *What quantitative measures from high school and iEAP have bearing on academic performance such as GPA?*
7. *What are the salient learner perceptions about their experiences in iEAP?*
8. *What are the salient learner perceptions about the impact of iEAP on their academic trajectory?*
9. *What characterizes iEAP participants who have been particularly successful in their academic careers based on their work in iEAP, their learning styles, motivations, and subsequent academic performance?*

2.9. Chapter Summary

This chapter presented the theoretical framework underlying this research study by presenting relevant literature about ELLs bound for university, their characteristics, and their needs. It then went on to outline relevant aspects of both L1 and L2 language acquisition before taking a more in depth view of the acquisition of language necessary for university. This chapter then presented a thorough description of the demands and requirements of tertiary level study and went into greater detail about the vocabulary and non-cognitive demands in particular.

This chapter then went on to discuss the history and importance of curriculum design and presented three different curricular approaches, as well as an outline of both content-based and sustained content-based instruction before discussing how to best incorporate vocabulary skills into curricular design. The review of the literature then concluded with a discussion of intensive and accelerated courses, concluding that intensive programs can be both effective and appropriate.

Finally, Chapter Two concluded with a reiteration of the overall questions guiding this research and presented nine refined sub-questions designed to address in greater detail the two guiding questions.

CHAPTER THREE: Research Design, Methods, and Participants

3.1. Introduction

The findings presented in this thesis include the results of pre- and post-testing directly before and after the intervention, student assignments and artifacts of learning, field notes and instructor observations, student interviews and surveys, and subsequent academic performance at UofC. The purpose of this study is to evaluate the effects of a curricular intervention on the language proficiency and academic performance of a group of local English Language Learners (ELLs) who participated in the iEAP programs of summer 2010 and 2011. These iterations of the curriculum generated a rich repository of data upon which to draw.

Once again, the main research questions are as follows:

- *What are the proximal and distal effects of iEAP that are visible in a variety of measures that reflect on growth of English academic language proficiency and students' academic achievement over time?*
- *How do students perceive their participation in iEAP, and the impact of iEAP on their subsequent academic engagement at university?*

A subset of related, more detailed questions further guide this research and will more adequately contribute to answering the overarching questions. The following sub-questions will be investigated independently in this chapter and later reviewed in combination to triangulate results and create a rich case description of the iEAP students and the course.

1. *What characterizes iEAP participant pre- and post-testing results on A. writing samples in terms of error rates, lexical profiles, and holistic grades awarded, B. the Gates-MacGinitie Reading Test comprising reading comprehension and general vocabulary, and C. the Productive Academic Word Test?*

2. *What characterizes the in-class and take home writing assignments of iEAP participants with regard to lexical profiles and instructor feedback?*
3. *What characterizes the oral presentations of iEAP participants with regard to lexical profiles and qualities?*
4. *What characterizes the academic performance of iEAP participants with regard to GPA?*
5. *What characterizes the academic performance of iEAP participants with regard to the number of successfully completed courses?*
6. *What quantitative measures from high school and iEAP have bearing on academic performance, such as GPA?*
7. *What are the salient learner perceptions about their experiences in iEAP?*
8. *What are the salient learner perceptions about the impact of iEAP on their academic trajectory?*
9. *What characterizes two iEAP participants who have been particularly successful in their academic careers based on their work in iEAP, their learning styles, motivations, and subsequent academic performance?*

Figure 3.1 outlines the overall schemata for this chapter and serves as a roadmap to guide the reader. Chapter Four opens with a description of the research design and a discussion of DBR and case study research. Next, the data sources, collection, and management are discussed along with a brief discussion of ethical considerations. The participants are then described in terms of their identification and recruitment, and demographic information for the ultimate participants is presented, followed by individual participant profiles.

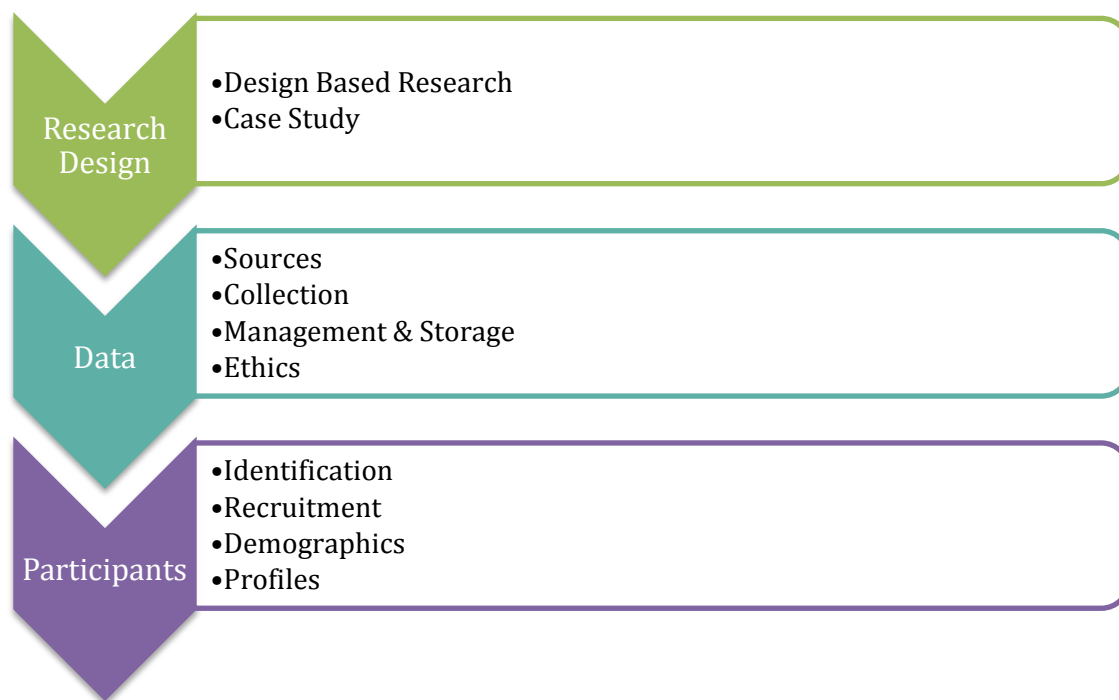


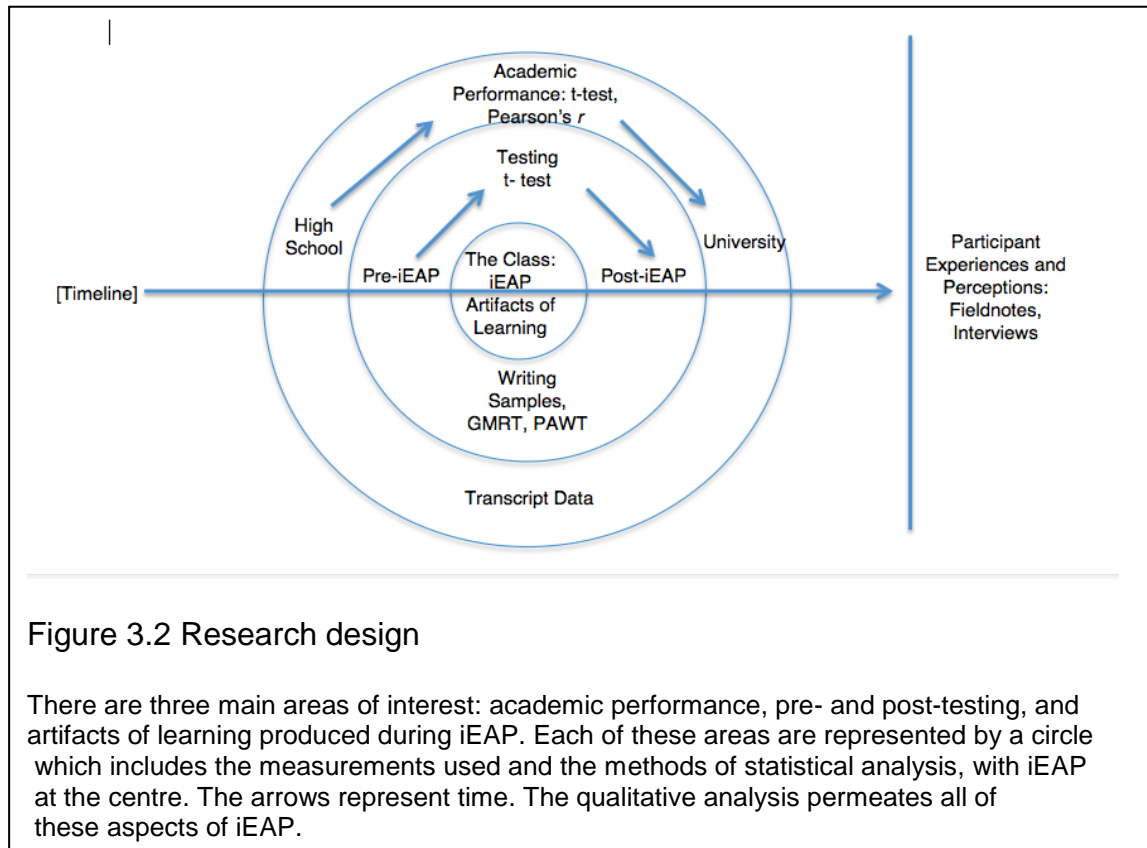
Figure 3.1 Road map of Chapter Three

3.2. Research Design

The promising outcomes of the preliminary findings outlined in the Appendix M, not only were presented to iEAP's funding bodies and published (Crossman & Pinchbeck 2012), but also provided the impetus for this research. The more extensive research of this thesis study investigates the outcomes of the iEAP program by exploring the rich data set generated from 2010 and 2011 iterations of the course. The mixed methods research design embraces the tenets of Design Based Research (DBR), with the goal of producing a descriptive case report of iEAP. The data explored and the methods implemented are both quantitative and qualitative. The quantitative aspects of the research involve the examination of student writing and speaking samples, the analysis of pre- and post-tests, as well as the presentation of academic trajectories

based on transcripts from secondary and tertiary settings. The qualitative aspects of the study stem from data collected in field notes, observations, and student interviews.

Figure 3.2 describes the overarching research design. The research project centres around iEAP itself, exploring the class, the testing before and after the program, and the academic performance of the participants prior to and following their participation in iEAP. The line bisecting the research design represents the chronological order of the data collected, beginning with high school marks, pre-testing, then iEAP performance, post-testing, and subsequent academic performance in university. The qualitative characteristics of this project permeate all aspects of the research design and comprise the learners' experiences and perceptions of high school, iEAP, and university.



3.2.1. Design-based research.

In this thesis study, a DBR approach was undertaken in order to better understand the iEAP course, the student participants, their experiences and perceptions, as well as their academic outcomes. Brown's (1992) seminal article introducing, describing, and justifying a new paradigm in methodology is considered to be the first and most influential piece of writing on DBR. According to Brown (1992), this methodology borrows ideas from applied design sciences such as aeronautics and artificial intelligence, in that the designer of educational curricula attempts to "engineer innovative educational environments and simultaneously conduct experimental studies of those innovations" (p 141).

DBR rests on the premise that a tangle of variables produces the unique working whole which is the classroom. The interaction of components is key to DBR because when one aspect is changed, it reverberates throughout the system, rippling through all other aspects. Although variables may be predicted beforehand, there will likely be unforeseen factors, interactions, and results. Variables are not expected to be constant or controlled; however, it is important to identify the factors affecting the inquiry and dependent variables of interest that emerge during the research (Collins, 1999).

Traditionally, educational research was done in lab settings by psychologists or in carefully controlled laboratory-like classrooms with little or no resemblance to the reality of the contemporary school environment (Lagemann & Shulman, 1999). While there is a great deal of experimental control in a lab setting, DBR embraces the synergism of *in situ* research. In the sterility of the lab, where the participation context is impoverished and controlled (Barab & Squire, 2004), the results are often tidier and easier to interpret. While controlled research environments can be of value, the results of such experiments are not necessarily transferable into the classroom.

Because each classroom is unique and no iteration is replicable in its entirety, it is essential that a rich description of the context, guiding and emerging theory, design features, and impacts on participation and learning be documented. The design is paramount to DBR and all aspects of it are recorded in detail so that readers of the study can evaluate the practicalities and potential for developing similar interventions (Mingfong, Yam, & Ek, 2010).

Due to the cumbersome volumes of data produced by classroom-based investigations, only a small subset can be analyzed in detail. The selection of these data can be contentious because the researcher must choose which artifacts to highlight or which subset of the population

to concentrate on. Because of the indivisibility of the research and the researcher, there is the question of bias. Following qualitative methodological guidelines, such as naturalistic inquiry (Lincoln & Guba, 1985), can increase the credibility of interpretations and results, and help manage findings. It is also advisable to maintain all the records and data stemming from a project so that they may be shared and later reanalyzed (Collins, Joseph, & Bielaczyc, 2004; Schoenfeld & Burkhardt, 2003).

Reflecting the complex nature of classroom-based inquiry, a mixed-methods approach is employed in DBR. It is common practice to show testing results for all student participants, a more in-depth analysis of a subset of those learners, and an even more detailed investigation of one or two particularly remarkable or indicative students (Brown, 1992). Such an approach demonstrates macro-level effects through traditional pre- and post-measures as well as richer micro-level effects through thorough probing of assignments, interviews, and observer notes. Additionally, triangulating the results can also add robustness to the project and strengthen the findings.

As design is put into practice in DBR, an intervention is played out in a naturalistic setting, ideally with multiple iterations, and the outcomes are noted in context and over time (Forman & McPhail, 1993). Wiggins (1995) highlights the value of reworking performances and building the findings into a recursive, non-linear curriculum design that is sensitive to the need for repeated rehearsals and performance attempts. The research itself is likewise recurrent and long-term.

A preeminent goal of DBR is to systematically understand and predict how learning occurs in order to effect change in educational practice by influencing teaching and learning. Research stemming from reality-based applied study has the potential to influence educational

products and programs that can be adopted elsewhere (Barab & Squire, 2004) and evidence is validated through the consequence of its use (Messick, 1992).

It is quite often the case with DBR that the investigator designs an intervention for a particular context with the goal of better understanding the realities of the underpinning frameworks. DBR practitioners hope to not only understand and test pedagogical theories in practice, but also develop broad models of learning theory. Although DBR research is superficially about looking at local impacts of a specific curricular intervention, an important characteristic of this model is that it makes evidence-based contributions that can be generalized to further theoretical understanding (Barab & Squire, 2004).

The argument has been made (Anderson & Shattuck, 2012) that educational research has a dismal track record for results that notably impact practice, and that most practitioners do not consider educational research to be relevant to their classroom (Collins, 1999). DBR seeks to ameliorate this. The value of a theory, following the pragmatic philosophical traditions of Dewey (1897) and Peirce (1902) underpinning DBR, is based on its ability to impact learning; the implementation and adoption of findings were of critical importance (Reeves, 2000).

For research based in a living, breathing classroom, DBR has great potential in that it “offers a ‘best practice’ stance that has proved useful in complex learning environments” (Dede, Ketelhut, Whitehouse, Breit, & McCloskey, 2009, p. 16). DBR is an attractive option for research on complex curricular designs and interventions such as iEAP, as it is inherently designed for synergistic situations and researchers do not cower at the prospect of multiple or unknown variables.

Recognizing the multiple variables and their synergism in terms of the development, implementation, and subsequent research of the iEAP, DBR was the obvious choice. Although

quantitative results comprise much of this study's findings, they are interpreted with the understanding that they spring from the dynamism and vibrancy of the classroom. Following a DBR approach, it is the preeminent concern of this research study that the findings be useful and influential in future iterations of iEAP and programming policy decisions in K-12 and university contexts.

Because of the nature of DBR and in-depth study of a classroom and curriculum, a case study approach can be implemented as a way to understand and present the findings. The next section outlines briefly how case study methodology can be understood within the context of DBR and this project.

3.2.2. Case study.

A case study is just that: the study of an issue or a case within a bounded system, such as a context or situation. On one hand, Stake (2005) posits that case study is not a methodology, rather it is a choice about what to study, or where its boundaries will lay. On the other side of the fence are those (Denzin & Lincoln, 2005; Merriam, 1998, Yin, 1984) who do see it as a methodology, with a strategy of inquiry. Despite these different perspectives, it complements DBR because it, too, investigates a real-life context with the recognition that context is pertinent to the phenomena being studied (Yin, 1984). An overarching goal of case study is to create a rich description of a phenomenon by investigating its complexity and particularity (Stake, 1995) while using multiple sources of information. Often using a mixed-method or qualitative approach, data are examined for both breadth, by looking at the data set as a whole, and depth, by focusing on select exemplary aspects. The data considered for inclusion in a case study should be varied, and examining and triangulating multiple sources of evidence surrounding the contemporary real-life context (Yin, 1984) can produce not only a detailed profile, but also contribute to understandings of similar phenomena.

Case study is a familiar approach to researchers across disciplines, and examples of this method are frequently found in psychology, medicine, law, and political sciences. Its modern social science origins are in anthropology, such as Malinowski's work on the Trobriand islanders and sociology, with LePlay's research on families (Hamel, Dufour & Fortin, 1993). While these approaches were rather qualitative, modern case study researchers often include quantitative data analysis in their reports. This is also done for the purposes of this thesis.

When considering case study data, Stake (1995) recommends four stages of analysis and interpretation:

1. Categorical aggregation, where the data are reviewed focusing on issue-relevant meanings and aggregating a collection of instances,
2. Direct interpretation, where meaning is drawn from a single instance,
3. The establishment of patterns, while looking for correspondence between multiple categories, and
4. Naturalistic generalizations, by highlighting what can be learned from the case.

Additionally, Cresswell (1998) suggests a fifth stage:

5. Description, a detailed view of the components of the case and the "facts." These are the general steps followed to address the sub questions 7-9, which are qualitative in nature; a more detailed explanation of these procedures will be described in the relevant sections.

This entire project centers around a case description of iEAP, and this document explores 1. how and why it was conceived and developed, 2. how and with whom it was implemented, and 3. what some of the short and long-term outcomes of the program are. Schramm (1971) put it succinctly: "the essence of a case study, the central tendency among all types of case study, is that it tries to illuminate a decision or set of decisions: why they were taken, how they were

implemented, and with what results” (p. 6). This document’s main focus is to look at these elements in iEAP.

3.2.3. Ethical considerations.

All ethics protocols were followed and an ethics certificate granted (File # 7491) by the UofC Conjoint Faculties Research Ethics Board (CFREB). Students were given a choice to participate in the research, which entailed allowing the researcher access to their high school and university grades, the tests and assignments generated from the iEAP program, and data collected from interviews and observations. Learners could also withdraw their consent at any time. Throughout the duration of the course, the instructor and researcher did not know which students had provided consent to ensure that grades would not be contingent on or affected by their participatory status. Upon completion of the course, the data pertaining to the one student that chose not to consent were destroyed. The consent form that was presented to and signed by the participants can be found in Appendix D.

3.2.4. Data management and storage.

Following Ethics protocol, the data, such as student assignments and testing, are stored in separate student portfolios in a locked filing cabinet at UofC. Interview data in the form of notes taken during interviews, as well as worksheets, surveys, and questionnaires are likewise stored in these individual student portfolios. All electronic copies of participant assignments and testing are stored on my personal password-protected laptop, which was regularly backed up to a password-protected drive. I also store the video recordings of student presentations on the same personal computer, along with student transcripts. Field-notes and journal entries are likewise saved to my personal computer.

To manage the large quantities of quantitative data, such as vocabulary profiles, test and assignment results, and indicators of academic performance, a master Excel spreadsheet was

created to manage all of the data in table form and allow for easier input into SPSS during statistical analyses.

3.3. Data Collected and Research Instrumentation

From the classroom spring countless artifacts of teaching and learning, and in the quest to document a curricular implementation an overabundance of data is often generated (Stake, 1995). Although these data are a reflection of the intricacies of education, the sheer quantity of them can be cumbersome and, by necessity, many must be excluded. The researcher is faced with a conundrum similar to that of the Borges' (1998) fictional mapmakers whose craft had developed to such a height that only a map with a scale of 1:1 was considered worthy. Classroom researchers, likewise, strive to include everything, but cannot produce work that is to "scale," and by necessity only a slice of the data can be investigated. Still, carefully selecting the most explanatory and relevant data and using a wide range of principled techniques to analyze them can produce a "thick description" (Geertz, 1973) with the goal of improving classrooms and bridging the gap between research and practice (Collins, 1999).

DBR prefers a mixed-methods approach, using both qualitative and quantitative measures to describe classroom-based phenomena (Brown, 1992). Following this example, a variety of data is selected and mixed methods are employed in a multilayered investigation of practice with the aim of promoting a breadth and depth of understanding. Viewing the results from multiple perspectives and considering the interaction of variables helps the researcher investigate and interpret unintended or unpredicted outcomes and findings (Nunan, 1989). Both micro- and macro-level approaches are relevant in this type of research, through analysis of both cross-curricular records and smaller samples of data in greater detail.

Throughout both of the six-week iterations of iEAP, an extensive collection of data associated with consenting students was amassed. All major and minor assignments, as well as process work such as brainstorming, outlines, rough drafts, and peer edited versions, along with self-evaluations, homework, in-class work, and videotapes of presentations were gathered into student portfolios. On a regular basis, I wrote a journal reflecting on the students and the course. In the second iteration, the instructor made observations and I took field notes. Students were also interviewed upon completion of the course, and notes were taken during these semi-structured interviews; the learners were again interviewed in their second or third year of study. Three different pre- and post-tests were also collected along with Strategy Inventory for Language Learning (SILL: Oxford, 1990) questionnaires and class evaluations. The Peabody Picture Vocabulary Test (PPVT-III: Dunn & Dunn, 2007) and the Expressive Vocabulary Test (EVT-2: Williams, 2007) were also administered to the seven students who participated in the 2010 iteration. High school and university transcripts were also made available to the researcher. All of these data sources are presented in Table 3.1.

Table 3.1

iEAP: Data Collected and Measured

Academic transcripts	High school grades	In-class & provincial diploma exam scores
	University transcripts	GPA, courses attempted, courses completed
Pre- and post-testing	Gates-MacGinitie Reading Test (GMRT)	Reading comprehension & vocabulary
	Effective Writing Test-(EWT)-style Sample	Spontaneous academic writing competence, rubric-based assessment, error rates, lexical profiles (The Compleat VP BNC-COCA 25; VP Classic v.4)
	Productive Academic Word Test	Productive use of target and academic vocabulary
Assignments	Major writing assignments	Academic writing competence
	Major oral presentations	Academic oral competence
	In-class productive vocabulary assignments	Spontaneous vocabulary production
Qualitative data	Interviews	Experiences and perceptions
	Fieldnotes & Observations	Description
	Intake forms	Demographics & objectives
	Post-Program Evaluation Survey	Experiences & perceptions
In-depth data (of participants 3, 7)	Strategy Inventory of Language Learning	Learner characteristics
	Peabody Picture Vocabulary & Expressive Vocabulary Test	Standardized vocabulary scores
	Artifacts of learning	Competence and progress
	Follow-up GMRT	Current vocabulary & reading comprehension levels
	EWT-style writing sample	Current academic writing competence

The main sources of data are outlined in the following sections, which also provide a brief description of the data itself or the instrument of measurement. These measures are interpreted and greater detail is provided about procedures that were undertaken to address each sub-question in its respective section.

3.3.1. Academic transcripts.

Transcripts have many different functions. They principally track progress over time and seek to provide a neutral or standardized representation of academic performance. Transcripts and grades also relay information about a student's academic performance and ability, and university entrance and graduate study is largely based on them. This "gatekeeping" function of grades can be troubling considering the impossibility of neutrality, yet still transcripts are preeminent in admittance decisions at both undergraduate and post-graduate levels.

Following CFREB's protocol, all iEAP participants provided consent to access to their transcripts through the UofC registrar's database. With the help of administrative staff with access to these documents, copies of their high school grades, university grades including all classes attempted, as well as any other transfer credits provided to UofC admissions were secured. These transcript data were used in answering sub-questions 4-6. Because access to transcript information was available only at UofC, transcripts for participant 10, who attended MRU (Mount Royal University) and UofA (University of Alberta) are not included.

The high school transcript document provides information about all of the courses taken in high school, as well as diploma exam and teacher-awarded marks in grade 12 core courses. Each participant's high school grades can be found in Appendix B.

The university transcripts to which I was given access, provided a list of all UofC courses attempted, including those that were not passed or not completed. Grades in each course, as well as GPAs for each semester were also included. In some cases, comments about a student's

academic standing were also noted on the transcripts. Furthermore, some grades from other institutions are recorded on the student file in cases where students used transfer credits in their application process. This was the case for participants 2 and 6, who took courses in MRU and the ULeth (University of Lethbridge) respectively. Because of the variable educational trajectories of the iEAP participants, not all of the transcript data is equal. Some of the learners from the 2010 iteration of iEAP are in their fourth year of university, while the others are in their third; others still have left university studies and one has transferred institutions. These results are presented in greater detail in the findings for sub-questions four through six.

3.3.2. Pre- and post-testing.

Standardized testing often dominates educational research, and its interpretation is generally straightforward and widely accepted beyond the confines of educational research because it can demonstrate performance in clear numeric form. Despite these obvious advantages, standardized testing is also questioned because results do not explain outcomes or demonstrate how a learner performs beyond the scope of the test (Nezavdal, 2003). Although there are correlations between test performance and actual knowledge, testing provides only one perspective of a learner's ability. It is a snapshot of what a student did on a particular test on a particular day, but does not explain the human experiences behind their results. Moreover, some students are adept test-takers with difficulties applying their knowledge beyond an exam, while others may be quite capable in practice but struggle to transfer their skills onto exam paper.

The generalizable and widely accepted results of testing can be convincing to policy makers, parents, and learners themselves. Increasingly, policy makers and funding bodies are holding educators to account for learning outcomes.

The results of pre- and post-testing inform sub-question 1, which is the lengthiest and most detailed of all the sub-questions. The tests that were administered and discussed in sub-question 1 are:

Writing Samples. On the first and last day of class, the students composed an academic-style persuasive essay, which was based on prompts used for the EWT. Their essays were then blind marked by two trained independent assessors using a trait-based error-coding sheet for the UofC EWT (Effective Writing Centre, 1993). Each essay was awarded an overall mark ranging from Unsatisfactory (U), Marginally Unsatisfactory (MU), Marginally Satisfactory (MS) to Satisfactory (S). These overall marks are determined based on several aspects of the writing including grammar, content, and structure.

Although the overall scores are helpful, it is also important to determine the specific areas of interest or where changes in performance occurred. For example, the numbers of errors in eight different weighted error categories including grammar, structure, word, and content were divided by the total number of words (tokens) in each essay to give the error rates and provide more insights into what aspects of writing could be improved in six weeks.

Unlike human assessors, vocabulary profiling tools such as those freely available at www.lex tutor.ca (Cobb, n.d.) provide a quantifiable description of the lexical characteristics of a piece of writing. Using such tools, the writing sample vocabulary was analysed. Although there are many tools for vocabulary profiling, those that are of most interest to this study are explained below.

A number of useful measurements can be made using the recently created *Compleat Web VP* (Cobb, 2013), which uses the Corpus of Contemporary American English (COCA: Davies, 2008) and the British National Corpus (BNC) (Nation, 2005) in conjunction as a reference point

for determining word frequency. The COCA is the largest free corpus of the English language and it comprises 450 million words, which are from equally sized samples of spoken language, fiction, popular magazines, newspapers, and academic texts. It is also the most recent corpus available and contains at least 20 million words from texts sourced annually between 1990-2012. The widely known and used BNC is comprised of 100 million words from a wide range of genres representing both spoken and written English. Although both of these corpora are from other countries and may represent other regional variations of English, the two corpora have vast similarities and largely overlap, and the recent addition of the COCA at lextutor has made the corpus align more with the English of the Canadian context (Cobb, 2013; Nation, 2012).

Another lextutor tool is the *Vocab Profiler v4.0* (Cobb, 2012a; Heatley, Nation & Coxhead, 2002), which is the most common profiling tool and most often used with ELLs. This test can be run to measure the 2000 most common words in the English language and their usage in any given piece of writing, and this was done to corroborate the previous findings. Rather than looking at the range of different word frequency bands, as in the *Compleat Web VP*, the *Vocab Profiler* reports the number and percentage of K1, K2, AWL (Academic Word List), and Offlist (all words not in the other three categories) words in a text sample.

Perhaps the most refined measurement relating to the intended outcomes and performance in iEAP can be generated through a simple formula based on the output of the *Compleat Web VP*, which categorizes a sample's lexical items into 25 different word bands based on frequency according to the BNC and COCA. K1 and K2 are word bands consisting of the most high frequency words that students are presumed to be able to use comfortably and flexibly; the words beyond these bands are of particular interest to iEAP. The formula used in this study was conceived by Pinchbeck (personal communication) and kindly shared with me,

but will also be presented in a forthcoming manuscript. It is unique in that it looks instead at the number of unique word families in the K3 word band and beyond and divides it by the total number of word families used in the writing sample.

Although the Type-Token Ratio (TTR) is a commonly used measure, its results can become confounded when comparing texts of differing lengths. The number of “tokens” in a writing sample is simply the total number of words used, regardless of repetition, whereas types represent how many unique words are used, meaning that a word is counted only the first time it is produced and any subsequent use of the same word in a text is disregarded. The major drawback to using TTR is that as a text increases in length, so does the tendency and necessity to repeat words. This can be difficult to control for, and therefore this more refined formula was used to compensate for some of the weaknesses of a TTR measurement.

Rather than looking at types and tokens, the total number of “word families”, or related words, beyond K2 were tallied and then divided by the total number of families in a text. Using families provides a better reflection of range and usage than types, which are usually higher because, for example, *apple* and *apples* are considered unique types, but are grouped into the same family. This may be relevant while looking at L2 writing that might contain errors of quantity, and for that reason families, rather than types, are measured in this study.

Gates MacGinitie Reading Test (GMRT: MacGinitie & MacGinitie, 1992). The GMRT (2nd Canadian Edition) was administered on the first and final day of iEAP. Level E, which is normally given to grade nine level students, was selected based on previous local research about ELL reading levels (Roessingh & Kover, 2003); two separate forms (forms 3 and 4) were given to ensure that any improvements were not due to test repetition bias. Despite its popularity, the GMRT, like other standardized measurements, is questioned for its validity and relevance to

ELL populations; however, it has been normalized on 40,000 Canadians and validated to ensure it is reliable and relevant to the Canadian context, most recently in 2006. It provides a snapshot of student levels of reading comprehension and vocabulary.

Because the test is widely used in the K-12 system, it is calibrated to the grade system: test results are correlated with Grade Equivalency (GE) levels. For example, a particularly high score on the reading comprehension component may result in a GE of 12.9, indicating that that student understands a variety of readings at the level expected of an average person with 12.9 years of school: that is, someone who is just completing high school. A GE 4.6 on the vocabulary section would indicate that a student has the vocabulary knowledge of the average student midway through the fourth grade.

Alternatively, the results can be interpreted through the Extended Scale Score (ESS), which is a linear progression constant across different versions and levels of the test; this score is most useful in conducting research when comparing a student's progress over time and on different exam levels. Following this numerical scale, it is easy to track student progress as they advance to more appropriately challenging tests. This numerical scale is linear and each unit represents the same measure of improvement – a student with an ESS of 500 can be said to know twice as much as a student with a score of 250 and the difference between 250 and 275 or 650 and 675 is considered to be the same (MacGinitie & MacGinitie, 1992b). Both GE and ESS are reported in this document.

The test itself is divided into two sections: Vocabulary and Comprehension. In the first section, general vocabulary knowledge is measured and test-takers are provided with a short and decontextualized sentence and they must match the meaning of the bolded word with a definition

or synonym. The following is an example from Level F, Form 3 (MacGinitie & MacGinitie, 1992, p. 1).

4. It may **decompose**.
- A. Rot
 - B. Stop moving
 - C. Be decorated
 - D. Be put out of office
 - E. Expand

The comprehension section, which is the second part of the exam, contains short excerpts from a wide variety of texts such as poetry, prose, and technical writing, coupled with comprehension questions. The following is an example also taken from Level F, Form 3 (MacGinitie & MacGinitie, 1992a, p. 5).

Chicory is a plant that grows in the wild. Like a good many other wildlings, chicory is too abundant for the good of its own reputation. If it were a rarer plant, the beauty of its blossoms and the clean, clear quality of their blue would more often be noted and admired. For the chicory blossom is an example of one of the best blues in the floral spectrum. Only the flowers of the flax plant can compete with it.

1. Chicory flowers have an unusual
- A. Shape
 - B. Reputation
 - C. Odour
 - D. Colour

It should be noted that both instructors and the other co-developer of iEAP purposely had no knowledge about the content of the GMRT while designing the curriculum or teaching the class. This was done intentionally to avoid teaching or presenting any specific words that may appear on the test.

Productive Academic Word Test (PAWT). Finally, a test to measure the specific vocabulary targeted by iEAP was developed in-house. Although the GMRT measures general vocabulary, it does not quantify more specific lexical abilities, and there is no known

standardized measurement of the academic vocabulary upon which iEAP hinges. Recognizing this gap, the curriculum co-developer Geoff Pinchbeck developed a tool to gauge information about the development of academic and target vocabulary. The PAWT was administered on the first and last days of the course along with the other tools described.

The obvious benefit of the test is that it measures iEAP's lexical targets more precisely. It requires the recognition and employment of actual words the students were either explicitly instructed or that were found in their readings. Its limitations are that it was designed in-house and has not been externally validated, nor are there two versions to administer to avoid test bias. Despite this, however, the Cronbach's alpha was $\alpha = .95$, indicating excellent internal consistency (Kline, 1999).

Designing a test to measure such knowledge is challenging; while it is rather straightforward to design a multiple choice test with sample sentences, this relies largely on passive knowledge and does not require the test-taker to retrieve or employ the word. To address this challenge, the PAWT consisted of a series of cloze, or gap-fill, sentences and a word list. While the word list contained just the words in their most common base form (i.e. noun or verb), the cloze sentences required the word to be inflected; for example, a noun might need to be changed to its adjectival form or a verb might need to be put into a passive form or changed to agree with the subject or the tense of the sentence. Test-takers therefore not only have to choose the semantically correct item, they also have to alter the word to fit syntactically in the text. Each correctly filled gap is awarded one mark, and the student must both choose the correct word and use its correct form to earn a mark; no partial marks were awarded. The following is an example taken from the test, and the test in its entirety can be found in Appendix C.

achieve adjust approach conventional
major outcome promote therefore whereas

1. The politician listed all the _____ [*achievements*] _____ made during his time in office, and asked the crowd for their support in the coming election.

3.3.3. Assignments.

To ensure that assignments are indeed valid examples of student achievement, it is vital that they be accurate reflections of the curricular goals and be designed to “push” students to produce target language and skills (Swain, 1985). An assignment that does not compel learners to produce their best work or illustrate the pinnacle of their ability will not be an accurate reflection of capability or progress.

The assignments in iEAP were carefully crafted to demonstrate a student’s academic competence while functioning as suitable evidence for the attainment of iEAP’s target outcomes in that their successful completion was tied directly to the overarching goals guiding the curriculum design. Additionally, these assignments were diverse and replicated actual university tasks in a variety of disciplines.

There are many approaches to interpreting the data of learner assignments. Teacher awarded marks and learner self-evaluations are good holistic starting points, but may exhibit biases. Texts, such as those produced in more lengthy major assignments, can be profiled for vocabulary, within the context of broader corpora, by using tools such as those found on lextutor.ca (Cobb, n.d) and previously described.

To evaluate the effectiveness of the assignments and the participant’s performance over the duration of the six-week course, sub-questions 2 and 3 address and analyze both take-home and in-class tasks, which are provided in Appendix G. Of interest to this study were the major

writing assignments: a. six take-home, b. three in-class writing assignments, and c. four oral presentations completed during class time.

The (a) major take-home writing assignments are reviewed in this study in order to measure academic writing competence in a variety of genres and across disciplines. These assignments included 1. a report, 2. an essay, 3. a research proposal, 4. a lab report, 5. a concept statement, and 6. a mini business plan. The purpose of these major tasks was to imitate authentic university assignments and to push students to produce academically rigorous work, as would be expected in their future studies.

The (b) three in-class writing assignments were completed as academic responses to topical prompts. These tasks measure a student's ability to spontaneously produce academic language accurately and in context, as the use of target words was a prerequisite for submitting these papers.

Finally, the (c) oral communication presentations measure a student's academic oral presentation skills and competencies. These tasks were designed with the major writing assignments, allowing the content and vocabulary to be recycled. The various oral tasks spanned disciplines and genres and included an 1. in-class debate, 2. a research proposal, 3. a lab report, and 4. a business pitch.

Transcripts of videos of the oral presentations were made, following the discourse transcription protocol outlined by DuBois, Cumming, Schvetze-Coburn & Paolino (1992). While there are many different transcription systems available and each system represents its own theory (Ochs, 1979), this method has been selected for this project due to its generalizability and flexibility. Having an explicit method for transcribing discourse is important, as there are many nuances and cues that may be lost in the simple transcription of words, rather the discourse

transcriber “seeks to write down what is significant to users of language” (p. 3), and the discourse event must be interpreted within the context of phonological, morphological, syntactic, semantic, and sociocultural knowledge. An outline of the transcription conventions used can be found in Appendix I.

3.3.4. Qualitative data.

In order to answer sub-questions 7, 8 and 9, qualitative data collected from iEAP is described. Much of these data stem from field notes and observations, interviews, and surveys.

Observation and Field-notes. Observational techniques and recordings are fundamental to and permeate all forms of research, from controlled lab settings to “natural” research sites. Field notes, in particular, occupy a valuable part of social science research and describe interactions and occurrences of concern. There is undoubtedly room for bias, and notes will always be viewed through the lens of the observer and bound by the limits of his or her talents (Angrosino & Mays de Perez, 2003). They still, however, provide vivid details about learner interactions and behaviors that might otherwise go unnoticed, unrecorded, or forgotten. The journal entries and notes offer rich descriptions of students and their interactions.

A variety of observations pertaining to the two iterations of iEAP are used in this research. As the instructor in the first iteration, I made regular notes both after class and during student-led activities along with observations about the class and the students in the form of a journal. During the second iteration, the instructor also made notes and kept in regular contact with me through meetings and electronic correspondence, making observations about the students and the class. During the second iteration, I also sat in on lessons two or three times weekly, taking field notes and recording observations, usually about classroom interactions. These notes and observations were used primarily as a way of supporting and bringing

perspective to the other data collected. These records offer a permanent audit trail and afford the possibility for reflection and retrospective analysis, a key feature of qualitative work.

While these observations and notes are not interpreted or presented in isolation, they are at times drawn upon to contextualize and triangulate findings stemming from alternate data sources such as testing, assignments, or interviews.

Interviews. Second only to field notes, interviews are perhaps the method most associated with social science research. Interviewing is pervasive not only in research, but also in our daily lives, and when used in conjunction with other techniques such as observation or testing, interviews can be a rich source of personal data, giving voice to the participants themselves (Byrne, 2004).

Interviewing is inherently reflexive as the interviewer is a co-participant who may influence the entire process (Fontana & Frey, 2003) and any inconsistencies, gaps, or misunderstandings stemming from the dialogues should not be obscured or denied during analysis. Despite the fact that interviews cannot be considered completely reliable, interesting perspectives and rich understandings can emerge from them. Although there are many different interview formats ranging from highly structured questionnaires to very open-ended dialogues, the more negotiated formats are gaining in popularity and have more illustrative power to provide the richer descriptions required by DBR; each interviewee is expected to have his or her own unique perspective and contributions (Stake, 1995). Although the way in which research participants represent themselves and their histories or experiences may depend to a great extent on their assumptions about what the researcher expects to hear (Duff, 2012), findings taken from interviews can be especially meaningful when used in tandem with other results.

Within the context of iEAP, students filled out an open-ended questionnaire that focused on their demographic information, goals, and experiences relevant to the study at hand. Upon completion of the six-week program, the questionnaire was revisited with the instructor-researcher and each student in a one-on-one interview in 2010 or a one-on-two interview with both the researcher and instructor in 2011, which can be found in Appendix K. This interview allowed the researcher to follow up on any questions stemming from the documents and to assess, with the student, the extent to which the short-term iEAP goals were achieved. These interviews lasted approximately 15-20 minutes and provided insights about the students' long-term study goals. After weighing the options, I consciously chose not to record the interviews, out of concern that the presence of a recorder would inhibit the participants' responses. Rather, notes were taken during the interview and reviewed and verified with the participant at the end of the interview.

Some student participants were again interviewed during the Winter 2013 semester to discuss their perceptions of iEAP and their university experiences. At the time of these interviews the first cohort of students were completing their third year of university study, while the second iEAP cohort was completing their second. These follow-up interviews allowed for a richer understanding of what types of content are most relevant for the curriculum so that appropriate alterations may be made. They also fostered a better understanding of the students and their university experiences, while touching on the themes first brought up during the post-program interview.

Intake forms. The demographic information collected from the participants provided valuable information about their backgrounds. While the information collected was originally intended to provide the instructor with information to better tailor the course, this information

has proved valuable in the research aspect of the program and contributed key details about the participants' backgrounds as well as their future plans.

The intake forms consisted of two documents. The first supplied demographic information such as age, Length of Residency (LOR), language background, and linguistic and academic difficulties. The second intake form was the "Goals Worksheet," which prompted participants to articulate their long-term or "big picture" goals as well as their short-term academic goals in iEAP and within different study areas. These two worksheets were also revisited during the follow-up interviews where participants were asked to reflect on their previous responses and confirm their demographic details.

Post-Program Evaluation Survey (PPES). As previously discussed, evaluation is an integral part of curriculum design, and it should permeate all aspects of the development and implementation. Just as the acquisition of curricular goals was evaluated based on the participants' ability to adequately complete the major assignments, and it was also crucial to get the participants' perspectives on and suggestions for the class.

On the final day of class, each learner was given the PPES to complete outside of class. They were then instructed to return the documents anonymously to their instructor's mailbox or submit them to their instructor during their individual meetings directly following iEAP. All of the learners who submitted the evaluation chose to do so with full disclosure and put their names on the form. While the form was primarily intended for evaluative purposes, it ended up being relevant to the research at hand by providing insights into the respondents' experiences and perceptions.

3.3.5. In-depth study (participants 3 & 7).

In order to address sub-question nine, two of the most successful iEAP students are presented in greater detail. When describing these two learners, other data sources and measurement tools are

used in order to contextualize their learning experiences and perceptions and provide a richer description of their learning process and characteristics as learners. Sub-question nine discusses both the Peabody Picture Vocabulary Test and the Expressive Vocabulary Test, their responses on the SILL, and includes samples and discussion of a select few of their artifacts of learning produced in iEAP. Their subsequent performance on a GMRT and academic-style writing sample completed in September 2013 are also presented. Each of these data sources is outlined in the following paragraphs.

Peabody Picture Vocabulary Test (PPVT) & Expressive Vocabulary Test (EVT).

The first cohort of iEAP partnered with the Masters of Education program in Applied Psychology at UofC to give graduate students an opportunity to work with ELLs and administer and interpret diagnostic testing. Masters students met with the first iEAP cohort and individually interviewed and tested the learners. In exchange for the opportunity to refine their testing skills, the Masters students wrote up reports and provided the students' results. Each iEAP student was administered two language tests: the Expressive Vocabulary Test (2nd Ed) (EVT-2: Williams, 2007), and the Peabody Picture Vocabulary Test (4th Ed.) (PPVT-4: Dunn & Dunn, 2007). Both of these are tests of vocabulary commonly used for diagnostic purposes in the K-12 system. While these tests are designed with monolingual learners in mind, their widespread use in the school system makes them relevant to this study and highlights some of the issues surrounding standardized measurements with using tests normed for one population with a different one.

Strategy Inventory for Language Learning (SILL). Recognizing the effectiveness of employing learning strategies to support the acquisition of an additional language, Oxford (1990) designed this survey for language learners to make note of and tally the language learning strategies they utilize. The purpose of the survey is to draw awareness to both the strategies

employed, and strategies that are not used. This information can be helpful to learners, instructors, administrators, and curriculum developers because it highlights which strategies to develop.

At the end of iEAP, the participants in the 2010 iteration were given the SILL to take home and return. This was not a mandatory assignment, and students were given the option of completing the measurement of language strategies. Both of the participants presented in sub-question nine completed the form, and their responses were used to better interpret and evaluate their characteristics as successful learners.

Artifacts of learning. Artifacts produced by students as part of their class work include both major and minor assignments and are an integral component of curricular research and evaluation. They not only provide snapshots of student abilities in a given moment, but in combination also provide a more dynamic image detailing learner trajectories. A collection of assignments demonstrates how quickly learners can gain new skills, which is pertinent in an intensive setting where the question of “how much can be learned within a short time?” is paramount.

Similar to the major assignments that are addressed by sub-questions 2 and 3, the smaller assignments can be used to plot a trajectory of student performance. It is not plausible to discuss the minutiae of all daily assignments; rather, completed assignments and tasks that best represent a student’s progress and performance must be carefully selected, as was done for the two in-depth student profiles presented in sub-question 9.

3.4. Participants: Identification and Recruitment

This section outlines some of the mutual characteristics of the targeted students and discusses their identification and eventual recruitment. Characteristics shared by those targeted for

participation were that they 1. had been accepted to university, 2. had completed their secondary education in Alberta, and 3. were LM students still in the process of developing proficiency in academic English.

While there were certainly shared characteristics and experiences among the students targeted by iEAP, their diversity was more remarkable. LOR, AOA, home language, schooling experiences, motivation, agency, academic and professional aspirations, intrinsic ability, and parental education represent just a smattering of their distinct qualities.

Demographic information indicated there would be a vast and varied pool of students from which to recruit participants. Target iEAP entrants were to have already gained their admission to UofC despite rather low ELA 30-1 grades. A closer look at their ELA 30-1 marks aided in identifying possible candidates: a large gap between teacher-awarded marks and provincial diploma exam results with a failing marginally passing mark coupled with a comparably high (>65%) teacher-awarded mark may indicate that the student has difficulties with writing proficiency and reading comprehension, possibly relying on other coping mechanisms or alternate assignments and assessment to manage the demands of ELA 30-1. The relevant high school marks for this study's participants can be found in Appendix B.

Garnett (2010) reminds us that no single variable in isolation accounts for variations in trajectories. Awareness of these and other influencing factors was invaluable in the identification and recruitment of target students. In practice, identifying candidates was not challenging, rather the challenge lay in attracting students to the course, as outlined in Appendix M. A great many students invited to participate in iEAP declined; the most common reasons cited were a need to work during the summer to pay for university tuition, the denial of language difficulties, the notion that "English isn't needed in Engineering," or other commitments such as trips to their

home country. Despite significant efforts, the recruitment process was challenging and ultimately netted just 11 students (ten of whom agreed to participate in the research component of the course) in two years. Further attempts to administer the course at the high school level in a local school board and university level in the Schulich School of Engineering have also been stymied either by lack of student interest or bureaucratic impediments.

The actual learner participants were quite diverse, representing eight language groups and four target faculties. Nine of the participants were 18 years old and the remaining participant celebrated her 18th birthday in the autumn following iEAP. Their lengths of residency in Canada varied considerably: one female was born in Calgary while one male had been in Canada for slightly less than two years, with the majority having immigrated in early adolescence. Although the student sample size is very small, the diversity is remarkable and the data set is rich, as the small number of participants allowed for more detailed data to emerge and contribute to this research project. More detailed descriptions of the students and the classroom demographics can be found in the next section.

3.4.1. Participant demographics and backgrounds.

As discussed in detail in Chapter Two, the profile of Language Minority (LM) students graduating from high schools and entering university in Canada is diverse. Although the two iterations of iEAP were very small, the student participants represent a microcosm of this diversity, as can be seen in Figures 3.3-3.6 which outline their demographic information and the individual profiles that follow.

Of the ten iEAP participants, six were female and four were male. They all had varying Ages on Arrival (AOAs) to Canada, as can be seen in Figure 3.3; while nine of them arrived as adolescents between the ages of 12 and 16, one girl was born in Canada, having entered grade one with no English knowledge. The most common AOA was 15, with three of the students

arriving at that age. Their mean AOA was 12.7, but was 14.11 when the outlying Canadian-born participant was excluded. The median AOA was 14.5.

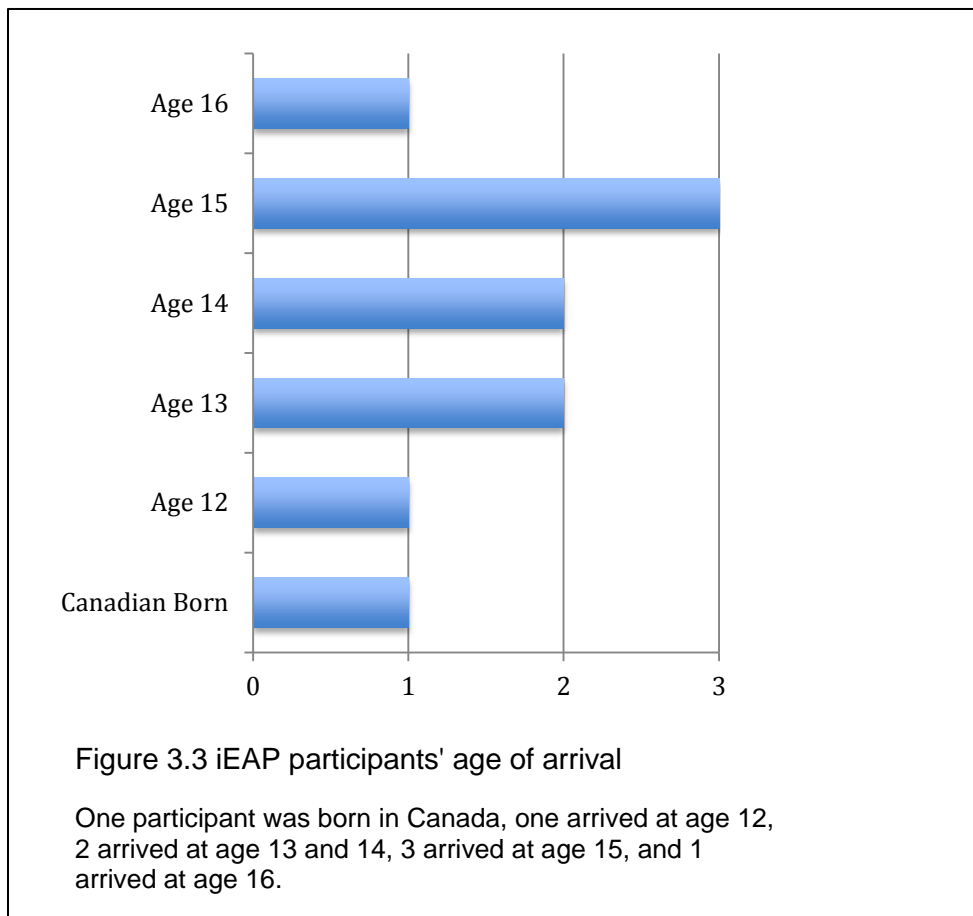


Figure 3.4 illustrates each student's Length of Residency (LOR) in years. Again, there was a wide range, and one the Canadian-born student had a much longer LOR than any of the other students. The mean LOR was 5.19 years, or 5.43 years when outlying participant 2 was excluded; similarly, the median LOR was 3.62 years for the entire class and 3.66 without participant 2.

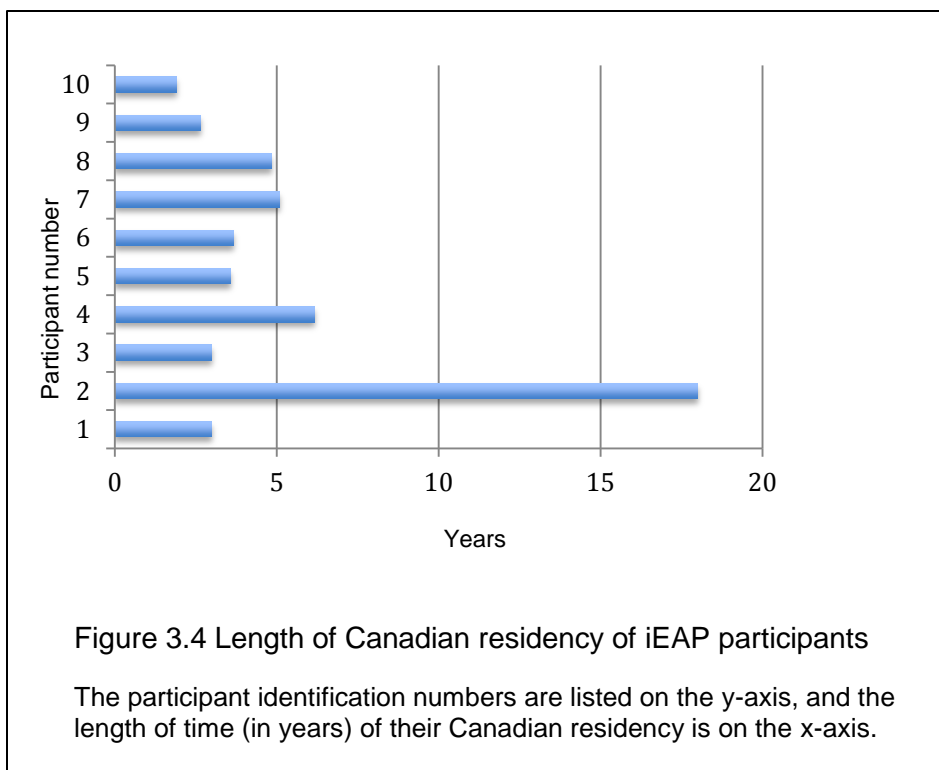
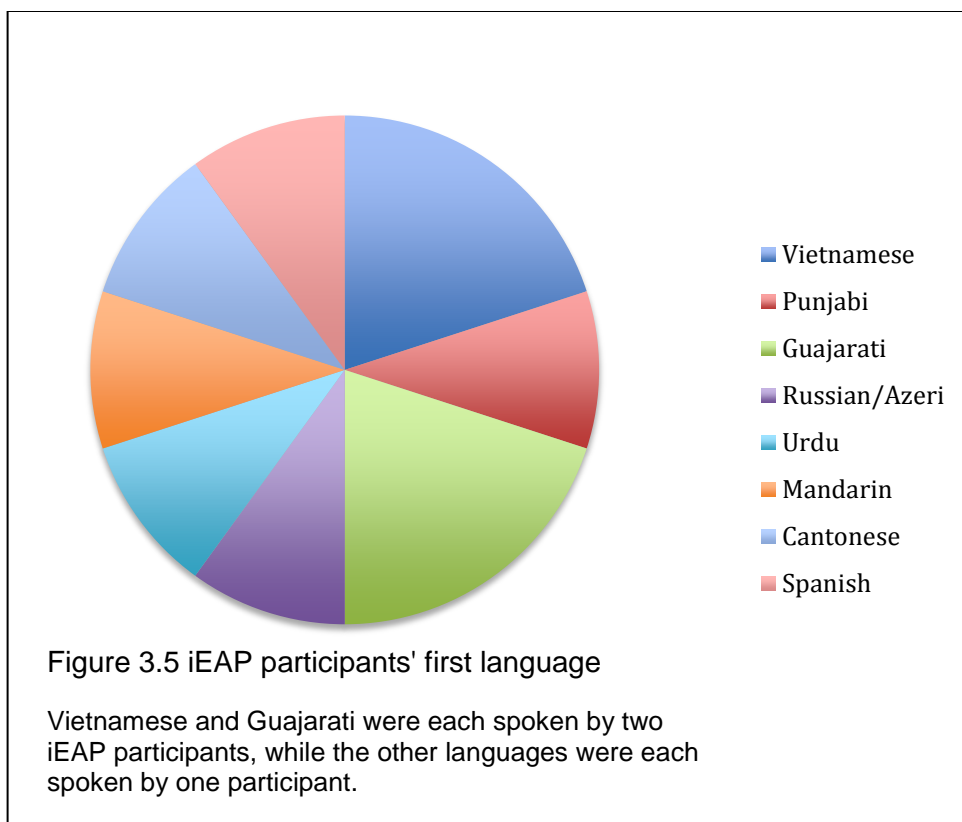
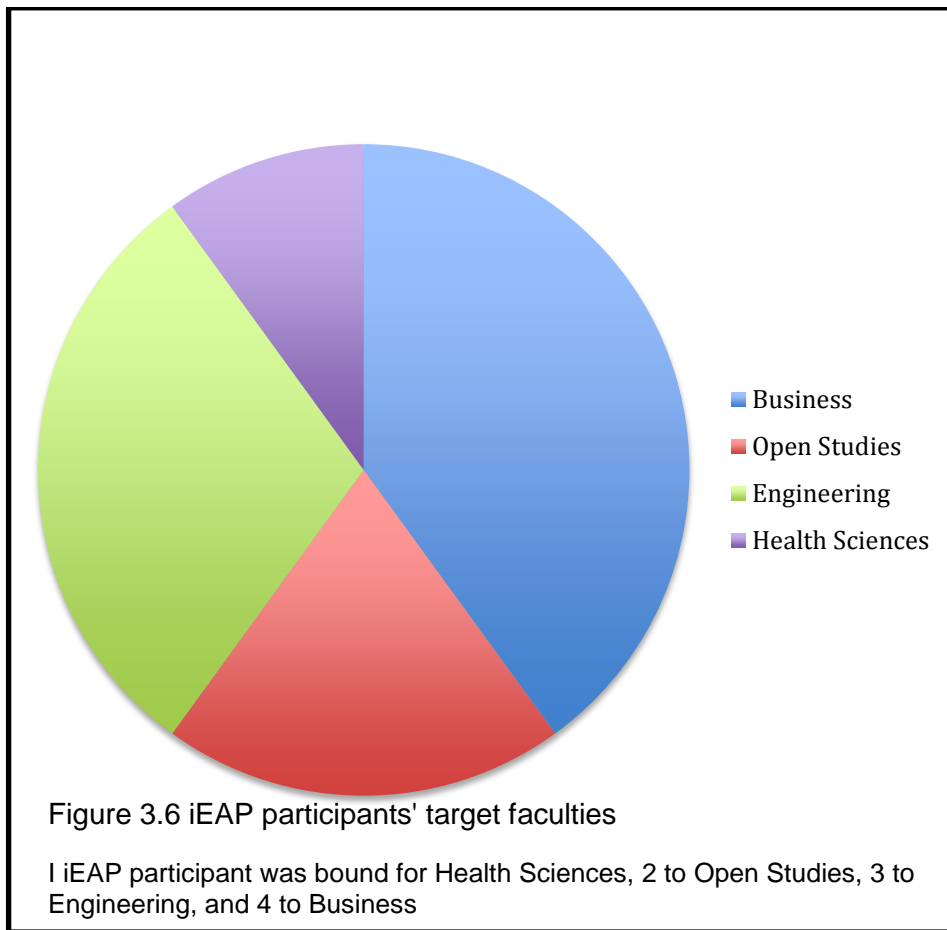


Figure 3.5 describes the participants' home languages. As can be seen in the chart, there was a broad spectrum of L1s spoken by the participants: Vietnamese and Gujarati were each spoken by two students, and Punjabi, Urdu, Mandarin, Cantonese, and Spanish were all spoken by just one student. The remaining student grew up in a bilingual household where his mother mainly spoke Russian, and his father spoke Azeri. He grew up in Azerbaijan, where he attended school in Russian. Just as their home languages were diverse, so were their experiences in L1. All of the students reported speaking their L1 at home, while the Canadian-born Punjabi speaker stated that she often spoke English with her brother, but Punjabi with her parents and grandfather.



The students were also diverse in their interests and future plans. As seen in Figure 3.6, they had been accepted into a wide variety of faculties of entrance. This diagram outlines the faculties to which they were accepted, but not necessarily the programs to which they applied. For example, the two students in Open Studies had originally applied to Health Sciences and Business; when they did not gain admittance to their target faculties, they instead enrolled in Open Studies with the plan to gain eventual admission to their target faculties using university rather than high school grades. It should also be noted that one of the Engineering students did not obtain direct entry or even attend UofC: he took part in a transition program at MRU, through which he gained entrance to UofA's engineering program in his second year. As illustrated, Business was the most popular faculty of entrance ($n=4$), with Engineering ($n=3$) a close second.



3.4.2. Individual student profiles.

In order to better understand who the iEAP participants were as individuals and learners, it is helpful to have some background information on each of them to refer to when interpreting and understanding the data in Chapter Five. As seen in Figure 3.4, each student participant was randomly assigned a number (1-10), which remains constant throughout this document. This section provides brief individual descriptions of each of the students, and sub-question 9 will delve deeper into the cases of two of the students and provide more information about them. Brief descriptions of all the individual students follow below.

3.4.3. “Andrew” (participant 1).

This participant grew up in Hong Kong, but is a Canadian citizen by birth. At the behest of his parents, he returned to Canada at the age of 15 to learn English, finish high school, and attend university. Andrew was 18 at the time of iEAP, but seemed older and distanced from his classmates. His background is not entirely clear: he told the class that he lived on his own, whereas his intake form indicated he lived with his parents. This matter was never cleared up sufficiently and, adding to the confusion, he once told me he lived with an uncle and that his parents were living in Hong Kong. When he first contacted me about iEAP, Andrew said that he had completed a year in the Haskayne School of Business, but later told the class that he had just graduated from high school. His admission records and official transcripts indicated that he graduated in June 2010 and therefore did indeed join iEAP directly out of high school.

Andrew was the quietest member of the class. During the first 25-minute in-class debate, his only contribution was a scripted summary that was less than 30 seconds long and read at a very low volume. When he finished his summary before the allotted time, he relinquished the ‘floor’ to Mark, a more proficient teammate, to make up the time. He was also the only class member with an accent that at times impeded communication, and he often spoke at a very low volume, making conversation and communication challenging at times.

Of all the student participants, Andrew most resembled an international student in that he spoke with a marked accent, his speech and writing contained a very high ratio of surface grammar and word choice errors, and he also reported being more comfortable in his L1. He reported that he largely socialized with other Cantonese speakers and rarely spoke English outside class.

While his class work was always done and his attendance record unblemished, I observed that he struggled with plagiarism, which was strategy he may have also employed as a survival

tactic in high school. Andrew performed marginally on many of the assignments, but did eventually pass the course, largely due to a good mark on a final group project, where his partners' hard work and performance positively impacted his final grade. It was Andrew I was most concerned about at the end of iEAP, fearing he would not fare well at university, as I felt he was still very much in the process of developing the linguistic, social, and academic skills required of university attendance and success.

Andrew was accepted to the Haskayne School of Business directly out of high school. His high school marks were good enough to obtain entrance, but were not especially high. He received marks in the 70-80% range in Math and Chemistry, and a final grade of 53% in ELA 30-1: 63% as his teacher-awarded mark and 43% on his diploma exam. His highest marks were in Cantonese (89-94%) and Financial Management (83-86%).

Upon completion of iEAP Andrew and I fell out of touch, he never responded to my numerous emails, and even once avoided me when I saw him on campus. I deliberated about including Andrew in this study, despite his consent to participate. In the end I decided his inclusion was important: he represents the many students that slip through the cracks.

According to his transcripts he did not fare well at university and left after completing four semesters and earning 18 credits out of 42 attempted. His highest grade was a C- and he also failed three classes and withdrew from four. His GPAs ranged between 0.25 in his first semester and 1.7 in his final semester.

I have attempted to track Andrew down in a number of ways, including emails, phone calls and a letter, with no success.

3.4.4. “Sarabjit” (participant 2).

This learner participant attended iEAP in 2010 and joined us directly from high school. She attended Foundations for the Future Charter Academy in Calgary and had heard about the course

through her ELA 30-1 teacher. Although Sarabjit was born in Calgary, she began kindergarten with no English experience, as her family spoke only Punjabi at home. She had one brother, who was two years younger. Once in their teens, they began to speak English with each other, although with their parents they still spoke Punjabi. Her father was a farmer in India where he had completed 11 years of school; her mother did a math and economics degree before coming to Canada. She reported her parents were working manual labour and factory jobs in Canada.

Because she was born in Canada, her learning profile was different from the other students in iEAP. She understood many cultural references that eluded the others and knew more about popular music and celebrity culture. Her writing was also markedly different; her issues often typified those of monolinguals such as misspelled homophones (Brians, 2003), although she did still exhibit a few errors more often found in L2 English writing, such as missing or misused articles.

Sarabjit was very out-going and participated the class with enthusiasm. She joined the class a day after everyone else and took her placement tests after her first class. She approached them very seriously, using all of the allotted time and following up on her results. Toward the end of the semester, however, her fervour began to wane and she was eager to finish the course and enjoy what was left of her summer before starting university. Her attendance lagged toward the end of the semester, and she was clearly distracted on the final day of post-testing.

Sarabjit applied to the Haskayne School of Business but was not accepted. Instead, she enrolled in Open Studies in the department of Communication and Culture with the hope of gaining admittance to Business with her university marks. Her high school marks were mediocre, and hovered between 60-70%; she had not obtained Math 30-1 which is a requisite for acceptance into the Haskayne School of Business and had only taken the general Science 30-1

rather than a specialization, such as Chemistry, Biology, or Physics, which is preferred for university admittance (UofC, 2013). Sarabjit's ELA 30-1 mark was 60%; she received 65% in class and 54% on her diploma exam. Her highest marks were in Psychology and Drama (84% and 91% respectively).

Once in university, Sarabjit reported struggling with large class sizes and inaccessible professors. She did not enjoy her first semester at UofC, feeling disconnected and leaving with a GPA of 1.7 and 6 of 9 attempted credits earned. She transferred to MRU to take advantage of smaller class sizes and has since attended regularly on a part-time basis. She hoped to complete a business degree in April 2015, and she was just over halfway finished. Her transcripts indicate a wide range of marks in her classes: from one F to an A and everything in between. I was able to access her MRU grades only through her UofC transcripts, as she applied to take a Biology course at UofC and had to submit transcripts from MRU. I cannot be certain that the transcript includes all the classes she had enrolled in or completed.

During our most recent follow-up meeting Sarabjit expressed regret at not being more "studious and organized" in the past. Although she was completing a Business degree, she expressed that she would like to become a dentist, but recognized the difficulty of gaining acceptance into such a demanding program. When she was in iEAP she had hoped to become a lawyer and had also dabbled with the idea of working in IT. Sarabjit had a lot of ideas and enthusiasm, but also recognized her own struggles with follow-through.

3.4.5. "Deeta" (participant 3).

Upon entrance into iEAP, Deeta had just celebrated three years in Canada. When she arrived from India, she had had little exposure to English and spoke Gujarati at home and Hindi in school. She immigrated with her parents and younger brother. Her father was in finance in India and was reportedly working on his CGA (Chartered General Accountant) designation in Canada.

Her mother had a BA and a B.Ed from India and worked in a daycare here. At the time of writing, her brother, who is two years her junior, had just completed his first year in Engineering at UofC. Her cousin, “Rudrani” (iEAP participant 5) had come to Canada a year earlier, and the two girls were neighbours and close friends.

Deeta reported having been frustrated with the amount of English as an Additional Language (EAL) courses she had to take upon arrival to Canada and entrance into the education system. She ended up taking three semesters of EAL classes, and this meant she had to take ELA 10, 20 and 30-1 all in a row to graduate on time. Her final ELA 30-1 mark was 61%, and there was a large discrepancy between her teacher awarded grade (75%) and her diploma exam result (47%). The rest of her marks, however, were higher, and she obtained an advanced level of Math 31 with a grade of 91%. She also excelled in Communication Technology, Information Processing, and Enterprise and Innovation courses. Her high school grades were sufficient to gain direct admittance to the Haskayne School of Business, but she was one of the final students to be notified of admittance due to her low ELA 30-1 diploma mark.

Deeta’s high secondary marks are of interest. When she was tested upon intake to iEAP, she had the smallest English vocabulary of all the participants: a vocabulary GE (MacGinitie & MacGinitie, 1992) of just 4.6. Although she began at a low level, she exited iEAP with a GE 7.9. After having worked with Deeta, I was not surprised by her 3.3 GE jump in six weeks. She was a dedicated and driven young woman. At the time of writing she was in her fourth year of university study in the Haskayne School of Business and had a GPA of 3.25. What factors have affected her positive outcomes? This warrants further consideration, and for this reason, a more in-depth case study of Deeta presents a richer description of this exceptional student in sub-question 9.

3.4.6. “Adnan” (participant 4).

This learner participant was born in Pakistan and is the eldest of six children. His L1, and the one spoken at home, is Urdu. He also learned some Hindi and English in school in Pakistan. When he joined iEAP, he had been in Canada for just over six years, having arrived at the age of 12.

Adnan attended Crescent Heights High School in Calgary and graduated in 2010. Both his parents completed high school in Pakistan and, at the time of writing, his father was working in an office, but previously had been a delivery driver. His mother was a housewife and full time mother.

Adnan joined our class on the recommendation of his previous EAL instructor in high school. His ELA 30-1 final mark was 59%, and like many of the other iEAP participants, there was a large gap in his marks: his teacher-awarded mark was 72% and he received 47% on the diploma exam. His other grades were quite high in secondary school, with marks between 80-90% in Math, Chemistry, and Physics. Because of his exceptional Math and Science grades, Adnan was accepted directly into the Schulich School of Engineering at UofC.

Adnan was studious and respectful. He attended every class and his homework was always complete. He was eager to improve his academic language skills and was an active and contributing member of the class. In the years following iEAP, he always promptly responded to my emails and maintained contact with me. Adnan also visited the second iteration of iEAP to talk about his experiences during his first year in university, answer questions, and provide advice.

Despite Adnan’s home responsibilities and his part-time job as a gas station attendant to contribute financially to the family, he was able to balance university, and he was the first to admit that it had not been easy and he had struggled to manage his time well. With large classes and little access to the professors or academic help, he found the first year particularly difficult.

Because of the structure of the Engineering program, he had to take five courses each semester; combined with the labs and other requirements, he spent most of his time on campus. Although Adnan had his struggles, he managed to remain in his onerous program of study.

After Adnan's second year he switched from Mechanical Engineering to Electrical Engineering and enjoyed this program much more. It set him back a bit of time in completing his degree, but he reported being very happy with his choice, saying it was more challenging, but also more interesting. His GPA at the time of writing was 2.5 and was 3.0 in the prior semester. He reportedly hoped to finish his degree in two more years and planned to take part in a co-op work placement program. Like many of the other iEAP students, one of his big goals was to be able to support his family by securing a lucrative job.

3.4.7. "Rudrani" (participant 5).

This is Deeta's (participant 3) cousin. Rudrani had been in Canada for three years and seven months when she joined iEAP. She had gone to school with Deeta, who had encouraged her to take iEAP. Like Deeta, she immigrated to Canada and lived in a neighbourhood largely populated with other East Indian immigrants. Although her father had obtained a degree in Mechanical Engineering and her mother a B.Sc in India, upon arrival to Canada only her mother could find work and had to support the family on wages from Tim Horton's. Her father eventually found employment as a security guard, and then in an office. Her younger brother had aspirations to go to medical school, and one of Rudrani's long-term goals was to be able to find well-paid work and fund his schooling.

Like Deeta, Rudrani was also directly accepted into the Haskayne School of Business. She had experience with English when she arrived in Canada, as she had attended an English-medium school in India. She never took any EAL programming in Canada and was placed directly into mainstream classes. Rudrani only knew how to speak and understand her L1,

Gujarati, and was not proficient in writing it. Although her English was deemed to be sufficient to not require EAL support, Rudrani clearly still struggled with the language. Her GMRT score was GE 7.6 in vocabulary and GE 8.3 in comprehension. Based on her test results and performance in iEAP, it is likely that Rudrani could have benefited from EAL programming upon arrival to Canada.

Rudrani always attended classes and participated, but I am not convinced she felt she could benefit from the course. At times, her work did not show a great deal of effort or consideration, although it was always done and met the requirements. In high school she did quite well in math and science, completing advanced Math 31 with 82%. She also did well in Information Processing, Communications Technology, and Enterprise and Innovation – all which she attended with Deeta. Her ELA 30-1 mark was 62%, and she received 72% in class and 51% on her diploma exam.

After two difficult semesters at UofC she was required to withdraw for academic reasons: her first semester GPA was 0.68 and her second was 1.86. It is noteworthy that during a follow-up meeting after her first semester she reported that things were going well, and her only difficult course was Statistics, which, according to her, she was passing. In fact, she had done quite poorly that semester, with two Fs, a D and a C-; she did not pass Statistics.

My attempts to contact Rudrani have not been fruitful. In follow-up interviews, Deeta has been careful to avoid discussing her, and I did not feel comfortable pressing the issue, although Deeta once told me Rudrani was on holiday in India and she had not spoken to her in a while. Rudrani did not respond to my repeated emails, and it is not clear what she was doing following our last contact.

3.4.8. “Samad” (participant 6).

This participant was born in Baku, Azerbaijan. Samad grew up speaking both Azeri and Russian at home, but attended school in Russian while he lived in Azerbaijan. He therefore knew how to read and write well in Russian, but not as well in Azeri, although he spoke it fluently.

Interestingly, Samad identified with Russians and Turks rather than Azeris, claiming, “No one in Canada has heard of Azerbaijan, so it is just easier to say I am Turkish or Russian.” Both of his parents are university-educated professionals.

At the age of 14, Samad came to Canada with his parents, and younger sister and brother. He attended Crescent Heights High School, where he graduated in 2010. His core courses in grade 11 were challenging, and he did not have particularly good marks (50-60%), but he did slightly better in grade 12, where he completed all three sciences, Math 30, Social Studies 30-1 and ELA 30-1. Samad had some very divergent teacher-awarded and diploma exam results: for example, 82% in class and 37% on his exam in Chem 30. His ELA 30-1 overall mark was 64%, with 74% in class and 54% on his diploma exam, which was the mean difference for all participants.

His mother was particularly interested in his education and it was she who first contacted us about iEAP. She also called a couple of times to check on his progress and ensured he thanked me with chocolates and a card at the end of the semester. Of all the parents, she was the most directly involved, displayed cultural capital, and felt comfortable contacting and chatting with both me and my supervisor Dr. Roessingh.

Samad presented himself as very easygoing. While in iEAP he worked long hours at the Co-op grocery store, even though he was aware of the time commitment required of the course. For this reason he was often running late with assignments and frequently did the minimum to

complete his tasks. While in class, Samad was sociable and participatory, and he spoke and wrote with a degree of confidence.

Samad applied to Health Sciences with the hopes of one day getting into the Faculty of Medicine, but did not gain acceptance into this faculty. Over the next two years at UofC as an Open Studies student, Samad took 11 courses, of which he successfully completed seven; he also took three courses at ULeth and upgraded five high school courses. He did all of this while working both as an audio-visual support person and a grocery store attendant. Notably, Samad was not open about his post-secondary “dalliances,” only informing me of the Open Studies classes at the UofC. It was upon accessing his multiple transcripts that I realized he had also been attending both high school and ULeth courses following iEAP.

By Fall 2012 and in his third year of university, he had completed his upgrading and enrolled in a B.Sc Geography program and for the first time started taking a full course load at UofC. This semester was challenging and he withdrew from two courses and attained a 2.67 GPA; he did much better in the Winter with four courses and a GPA of 3.15 once he left his jobs. He enrolled in both Spring and Summer 2013 courses in an attempt to catch up to his peers.

Samad reported that he found courses where there is a lot of reading and tests are based on lecture content the easiest, but he struggled with the Biology and Chemistry courses that required laboratory work, which he feels he was not adequately prepared for by his high school classes.

3.4.9. “Mark” participant 7.

This participant was born in China and immigrated to Canada with his parents at the age of 13, and had been in Canada for five years when he entered iEAP. Mark attended secondary school at Western Canada High School in Calgary. He spoke Mandarin at home and could also read and write in this language. His schooling in China was in Mandarin, and he arrived in Canada with very little English knowledge or experience. Both of his parents had worked in the petroleum

industry in China, and his father was a senior engineer who had also worked in Algeria. In Canada his father was unable to work and his mother was employed in a cookie factory.

During iEAP Mark was rather quiet in class, but was eager to contribute when called upon or when he had something to add. He was always in attendance, completed his homework without fail, and engaged with the materials and his classmates. During the course he worked evenings as a dishwasher, but this did not affect his ability to keep up with his assignments or studies. Mark showed substantial improvements throughout the course, as reflected in his pre- and post-tests, as well as his artifacts of learning and interview responses.

In high school Mark did extremely well, attaining many marks over 90% and 94% in advanced Math 31. Mark completed and shone in all the Science courses: Physics, Chemistry, and Biology. His Social Studies 30-1 mark was 84% and his ELA-30-1 was his lowest mark at 67%, with 70% awarded in class and 63% on his diploma exam. Because of his academic standing, Mark was accepted into Health Sciences, which has very high admittance standards and was his faculty of choice directly out of high school.

Since entering university in 2010, Mark managed his workload very well. He was part of a cohort program where he had to take five courses each semester and he not only kept up, but also excelled in his studies. His most recent (Winter 2013) GPA was 3.88 and he has seen similarly high marks throughout his tenure at university. Mark was involved with Student Union politics, he was the vice-president of three clubs, volunteered at a local hospital and educational facility, and helped with neuroscience research.

Mark's academic goals were to "most definitely attend graduate school and get [his] PhD or MD." He is particularly interested in neurology, cardiology, and biology, but has not settled on an area of specialization. His long-term goals include research and politics, but he would also

like to be a singer. Because Mark's university performance has been outstanding, I think he warrants greater consideration, and I look at Mark in more detail in sub-question 9.

3.4.10. "David" participant 8.

This participant took part in the second iteration of iEAP in the summer of 2011. David was originally from Venezuela and spoke Spanish both as an L1 and at home with his parents and sister. He immigrated to Canada with his family at the age of 14, or four years and 10 months before starting iEAP.

David's family valued education; it was his father who had first contacted me about the iEAP program. Coincidentally I had previously taught his older sister in EAPP at UofC in 2009. His father was a mechanical engineer working in Calgary, his mother had administrative training but was a housewife at the time of writing, and his sister attended UofC where she was completing a law degree. She had already completed law school in Venezuela, but did not qualify to practice in Canada.

David attended Sir Winston Churchill High School in Calgary where, other than in ELA, he had a solid academic record: 88% in Advanced Math 31, 85% in Chemistry 30, and 72% in Physics. He received 65% in ELA 30-1, and there was a massive discrepancy between his teacher-awarded mark and diploma exam result: 81% and 48% respectively. David applied to Engineering and gained admittance directly out of high school. At the time of writing he was starting his third year of study.

The first year of Engineering is a general program, and students choose their area of specialization prior to their second year. While David had originally intended to take Mechanical Engineering, he later opted for Electrical Engineering. This was also what Adnan (participant 4) ended up doing.

David's first year was difficult, and like many Engineering students, he was placed on academic probation. His second year was slightly better, although he still had a low GPA of 1.65. Like some other former iEAP students such as Samad and Rudrani, he was not always transparent about his actual grades, and what he has reported in interviews has not always matched his transcript data.

At the time of writing, David was no longer on academic probation, and from what I have heard from the Schulich School of Engineering (Dr. Bob Brennan, personal communication), the first two years are the most difficult, and large numbers of first year students are put on academic probation, and are either required to or choose to withdraw. If students can get through those first two years, completion of the program is usually manageable.

Like many of the other participants in this study, David has reported that time management was a big concern for him. He said that university has been "mentally exhausting" and much more difficult than anticipated. In general, he also felt as though his high school experiences did little to prepare him for university, save for his IB (International Baccalaureate) math program. A natural in math, he reported that those classes were the easiest. He had not yet taken any of his options outside the Schulich School of Engineering.

David also mentioned in our most recent follow-up interview that he had done a number of group projects where he has been put in charge of the writing and editing component of the work. He claimed that iEAP helped with his writing and confidence with the language, but the fact that he was deemed the strongest writer and editor in his groups also attests to the large numbers of students in university who do not have the writing skills necessary to undertake a degree program.

3.4.11. “Heenim” participant 9.

Heenim also took part in the second iteration of iEAP. She immigrated to Canada from Vietnam at the age of 15 and did all of her high school in Calgary, at Forest Lawn High School. She had been in Canada for just two years and eight months when she took part in iEAP. She spoke Vietnamese at home and could read and write in the language, having taken nine years of schooling in Vietnam. Heenim was a rather quiet girl and also the only iEAP participant under the age of 18. She was friends with “Nguyen” (participant 10) from high school and they traveled to class together every day.

In high school, Heenim had very high marks in all of her business related classes such as Financial Management (96%) and Communications Technology (99%). She also obtained 87% in Chemistry 30 and 82% in Math 30. Her ELA 30-1 mark was 66% (72% in class, 60% on her diploma exam). Heenim took five English courses in high school (ELA 10-2, 20-2, 20-1, 30-2) with marks ranging from 60-73%.

Likely due to Heenim’s excellent marks in Financial Management Courses and a relatively high average, she was accepted into the Haskayne School of Business directly out of high school. She had completed two years of study and was in her third year of university at the time of writing.

Her first year at university was satisfactory and she took 10 courses over three semesters and her GPA was 2.00, which was marginal, but not low enough to be placed on academic probation. In the first semester of her second year she was required to withdraw for unspecified academic reasons, but was subsequently readmitted on probation because of an appeal. Her GPA for that semester stood at 1.32. The following semester, while she was under academic probation, was her best one yet, with a GPA of 2.53.

Unfortunately I cannot add much about Heenim's experiences at university, as we were unable to arrange a time for a follow-up interview.

3.4.12. "Nguyen" participant 10.

Nguyen had been in Canada for the shortest amount of time. When he joined iEAP in 2011, he had been here for one year and 11 months. Nguyen attended Forest Lawn High School for grade 11 and 12, where he studied with Heenim. Like Heenim, Nguyen was from Vietnam. But unlike her, Nguyen had left his family behind in Vietnam to come to Canada for his studies and was living with an "uncle", who was either distantly related or a family friend. Neither of his parents, who were still in Vietnam, had finished school; his mother had only attended until grade three due to financial issues. He had one older sister attending university and two younger siblings still attending grade school in Vietnam.

Nguyen was a determined and enthusiastic worker during his time in iEAP. Unfortunately I cannot describe in detail his high school or university grades. Because of his limited time in Canada and subsequent inability to attain the courses required of UofC admission, Nguyen opted instead to go directly to MRU's Engineering transfer program. This program partners with UofA in Edmonton, where Nguyen was studying and living with another "uncle" at the time of writing. I was not able to gain access to his transcripts.

Although the marks I obtained from Nguyen were self-reported and, as noted previously, not all of the participants were entirely reliable when reporting grades, my impression from our follow-up interviews was that Nguyen was doing well at school. Admittance to UofA is competitive, so the fact that he was studying there attested to his success. Nguyen was in a Mechanical Engineering program where he took six courses each semester, as part of a cohort. He described the transition from MRU to UofA as "challenging, but good," and he said he really enjoyed and benefited from his year at MRU. Nguyen reported that his first year GPA was 4.0 in

his second semester and was 3.4 at the UofA after his second year. I could not verify these grades, but I got the impression that he was indeed doing well and his sense of pride was apparent.

Nguyen's academic goals were to complete university with good marks and later become a project manager. He also had an interest in business and would have liked to open a manufacturing factory, although he realized he would need capital to do this. He was not sure if he wanted to go back to Vietnam because his major was not well developed there, and he felt that there were likely more opportunities for him in Alberta.

He claimed that some of his most challenging courses were also the most interesting. He said that reading was still difficult, as was keeping up with the time management demands. Unlike all of the other participants, Nguyen's view of high school was largely positive; he noted that during high school he had the opportunity to take part in extra-curricular activities such as APEGGA (Association of Professional Engineers and Geoscientists of Alberta) *Let's Talk Science*, which he said looks good on his resume. He also indicated that in high school he learned the basics of math and science, which helped those skills to become more automatic in university. He reported very much enjoying the Business section of iEAP.

CHAPTER FOUR: Findings, Procedures, and Discussion

This rest of this chapter will explore, in order, the nine sub-questions that were defined with the purpose of addressing the overarching questions guiding this research. For each sub-question, the procedures undertaken and the findings are described and reported. A discussion of the results in the context of the two overarching questions conclude this chapter.

4.1. Sub-Question 1

What characterizes iEAP participant pre- and post-testing results on A. writing samples in terms of error rates, lexical profiles, and holistic grades awarded, B. the Gates-MacGinitie Reading Test comprising reading comprehension and general vocabulary, C. the Productive Academic Word Test? Quantitative findings about the class upon entrance to and exit from iEAP are reported and described in the following section. The results described are based upon pre- and post-testing administered on the first and final days of iEAP in both 2010 and 2011, and the findings seek to answer sub-question 1.

4.1.1. Writing samples.

At the start and end of iEAP, students were supplied with a writing prompt asking them to write a 400-word persuasive essay incorporating supplied data and using academic language. Each sample was later blind-marked by two or three trained assessors at UofC using the EWT guidelines (Effective Writing Centre, 2003: See Appendix E).

Typically, on high stakes testing where an essay is a requirement, such as the EWT, two assessors evaluate the work to ensure fair assessment; however, even in cases where inter-rater reliability is considered high, discrepant scores are often found (Johnson, Penny & Gordon, 2001) despite employing trained assessors and detailed rubrics (Rezaei & Lovorn, 2010). Even with a detailed and finely tuned rubric, assessment is difficult and requires constant practice and recalibration. Johnson, Penny & Gordon (2001) found that the most reliable way of dealing with

discrepant essays was to bring in a third, more experienced “expert” assessor, especially in the case where the first two assessments did not agree on the pass/fail status of a paper. This was done for the papers in this study where the pass or fail status of the paper was not agreed upon.

Over the long tenure of this exam, detailed guidelines were developed to assess student writing. When a third reviewer was brought in to ensure fairness and reliability, this reviewer’s grade became the official one. EWT assessors agreed on grades approximately 75% of the time, although there was variation between different assessors, and some were more aligned with others (personal communication, Christine Sopczak, EWT assessor, 2013). As is common practice, the assessors also took part in annual inter-rater reliability tests and exercises. Since the retirement of the exam the assessors have not had the opportunity to use this rubric, nor have they been able to take part in reliability exercises.

Each assessor assigned an overall grade to each paper, determined by the results of a more detailed analysis. This tallied mark could, however, be over-ruled in favour of the trained assessor’s own judgment, assuming adequate support for the alternate grade was provided. The overall marks were Unsatisfactory (U), Marginally Unsatisfactory (MU), Marginally Satisfactory (MS), and Satisfactory (S); a mark of MS or S was required to pass the exam. In terms of the detailed analysis from which the overall marks were derived, there are 67 different error types in eight categories: 1. Content, 2. Structure, 3. Paragraphs, 4. Sentence Errors, 5. Grammar, 6. Words, 7. Spelling, and 8. Punctuation.

The error categories themselves were weighted differently, with some errors considered graver than others; for example, a “C-1 error” (Content error – length) results in an automatic fail and indicates that the writing sample did not meet the minimum length requirements. In the *Content*, *Structure*, and *Paragraph* categories, two errors (other than the C-1 error) in any one

category resulted in a “half-fail”, while three errors resulted in a ‘fail’. Other errors were considered less severe; in *Sentence Errors*, *Grammar*, and *Word* categories, three to five errors in one category would result in a “half-fail” and six or more errors would result in a “fail.” *Spelling* and *Punctuation* errors were used in conjunction, and four to seven errors resulted in a “half-fail,” and eight or more errors led to a “fail.” Fewer than two combined “fails” were required to pass the EWT. Table 4.1 outlines the error and fail categories.

Table 4.1

EWT Guideline: Number of Errors Resulting in Half-fails or Fails

	Half-Fail	Fail
Content	2	3
Paragraph	2	3
Structure	2	3
Sentence	3-5	6+
Grammar	3-5	6+
Word	3-5	6+
Spelling &Punctuation	4-7	8+

Note. EWT=Effective Writing Test. A total of 2 or more fails results in a failing overall grade

The same protocol, as recommended by Johnson, Penny & Gordon (2001) and followed by the Effective Writing Centre, was followed with the iEAP writing samples. The first assessor (A) received the samples in two batches in 2010 and 2011, and although she knew to which year’s cohort the samples belonged, she did not know which were pre-writing samples and which were post-writing samples. The second assessor (B) marked all of the papers (2010 and 2011)

together, and did not know whether samples were pre- or post- or written by iEAP students from the 2010 or 2011 cohort. To ensure that the different prompts were not the cause of any pre- and post- differences, the same prompts were used in reverse order in 2011.

The two primary assessors in this project had different approaches and styles. Assessor A, the more experienced of the two original assessors, tended to highlight surface level errors: grammar, sentence errors, and word errors. Assessor B, on the other hand, was more critical of structural errors and content, but was more forgiving of grammar and word errors. The third, more experienced “expert” assessor (C) was somewhere in the middle. She provided detailed feedback, and very thoroughly completed rubrics where she noted many of the surface level errors, but would only count minor systemic errors, such as missing articles, once or twice. While Assessor A also provided some alternate overall grades that differed from the rubric-based tallied overall grades, Assessor B unfortunately did not provide overall grades and indicated that they could be determined through tallying the “fails” and “half-fails.” Because of the two different approaches and a lack of formal overall grades from Assessor B, I used both assessors’ tallied grades in an effort to make fairer comparisons between the two assessments. Assessor C’s tallied overall scores matched the assigned overall grades. Results are reported in the following sections.

The overall grade reported was based on the number of “fails” or “half-fails” in each category: two or more fails and a paper was not deemed to pass. One assessor awarded passing grades to three papers that the other did not in the case of three iEAP writing samples. They agreed about the pass/fail status on 17 of 20 papers, and this 85% agreement rate is considered acceptable (Johnson, Penny & Gordon, 2009). Despite their different approaches noted previously, their final results were reasonably similar. Differences and details are highlighted in

the following sections, and overall grades can be seen in Table 4.2 and described in the next section.

The overall marks varied between the two assessors. Looking at the pre-results of Assessor A (overall pre1) in Table 4.2 we see that all the students, save two, received U marks on the writing sample. The remaining two did not receive a passing grade. As for the post- results, four papers were awarded passing marks, with two of them being S; six papers still did not meet the EWT requirements and four were still considered U.

Table 4.2

Overall Writing Sample Grades, According to Three Assessors

	Pre			Post		
	A	B	C	A	B	C
Learner						
1	U	MS	MU	U	MU	
2	MU	MU		MS	S	
3	U	U		U	MU	
4	U	U		S	S	
5	U	MU		MU	MU	
6	MU	MU		S	MS	
7	U	MU		MS	S	
8	U	MU		U	MS	MU
9	U	U		U	MU	
10	U	U		MU	MS	MS

Note. U=Unsatisfactory, MU=Marginally Unsatisfactory, MS=Marginally Satisfactory, S=Satisfactory, A=Assessor A, B=Assessor B, C=Assessor C.

Looking at Assessor B's results, it can be seen that one of the pre-test papers was awarded a passing grade, and just four were considered U. In the post-test, six papers were deemed to meet passing requirements and none were deemed U. Three received an assessment of S. It appears that Assessor B consistently awarded slightly higher marks; a more detailed examination of error types is provided later in this section.

Following the recommendations of Johnson, Penny & Gordon (2001), an average of both of the overall grades awarded was used for statistical purposes; in the case of the three papers (1

pre-, 8 post-, 10 post-) where there were three assessments, the overall grade was an average of all three assessments. Each overall score was converted to a number, where U=1, MU=2, MS=3, and S=4. The final overall scores can be found in Table 4.3.

Table 4.3

Overall Numeric Writing Sample Grades, Averaged over Assessors

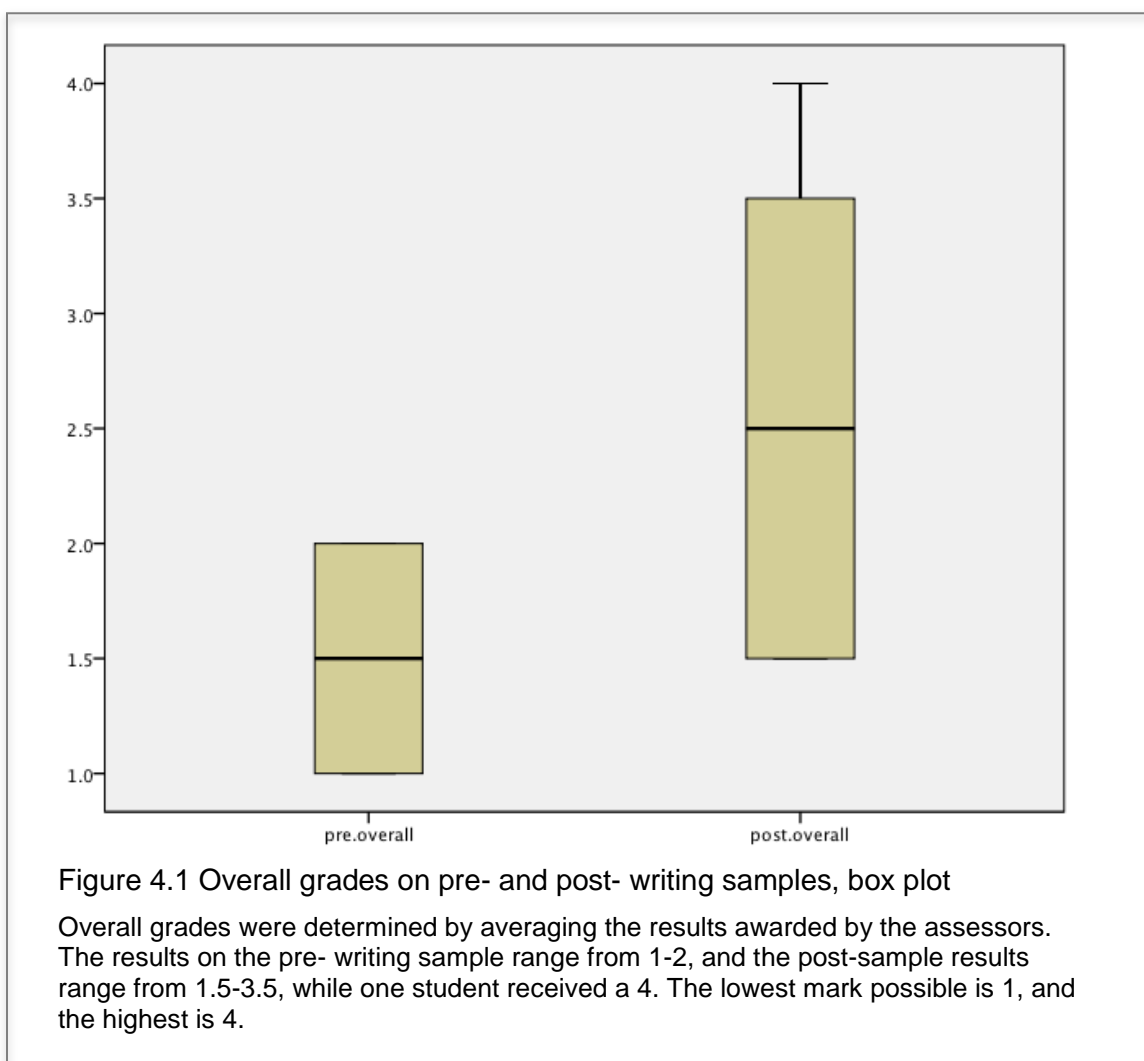
Learner	Pre	Post
1	2.00	1.50
2	2.00	3.50
3	1.00	1.50
4	1.00	4.00
5	1.50	2.00
6	2.00	3.50
7	1.50	3.50
8	1.50	2.00
9	1.00	1.50
10	1.00	2.67

Note. Overall scores awarded by different assessors were converted to numeric form and averaged.

* $p=.007$.

According to a 2-tailed paired t-test, the difference between the pre- and post-test grades is significant ($t(9) = 3.52, p = .007$). The mean difference over the 10 learners is 1.12, with a standard deviation of 1.00. The effect size of the difference over time is 1.46, indicating a large effect size, according to Cohen's (1988) guidelines. Figure 4.1 is a box plot illustrating the overall pre and post- results on the student writing samples

For this, as well as the other tests in this chapter, a non-parametric test (Wilcoxon), was also performed. This more robust test was done because such a small sample size increases the likelihood of unequal distribution, and confirming the paired t-test results were accurate was important. In all cases, because the results corroborated the paired t-tests, they are not reported.



As previously mentioned and described in this section, the EWT was assessed according to a detailed rubric that contains 67 different error types. In order to increase the understanding of how the overall grades were determined, and to better understand the features of iEAP student writing, an investigation of error types and frequencies was undertaken. As noted, the assessment

results between the assessors varied, as did their error classification; for this reason, every writing sample has two (and sometimes three) separate error rates.

All errors are not equal, and thus they were weighted differently to determine the error rate. Following the EWT assessors' guidelines, certain errors were more severe (see Table 4.1) and different categories of errors were accordingly weighted. Because just two errors in the *Content*, *Structure* or *Paragraph* categories result in a "half-fail," while five *Sentence*, *Grammar* or *Word* errors result in a "half-fail," *Content*, *Structure* and *Paragraph* errors were accordingly considered to have 2.5 times the gravity *Grammar*, *Sentence*, *Word*, and *Punctuation* and *Spelling* Errors. Using this formula, all the errors as determined by the three assessors were calculated and accordingly weighted. The total number of weighted errors was then divided by the total number of words in each sample to determine the error rate. Table 4.4 outlines the error rates from each time a paper was assessed. As can be seen, in the cases where a third assessment was required, Assessor C's error rates fell in between those of the two previous assessors.

Table 4.4

Weighted Error Rates on Writing Sample, According to Assessors

Learner	A-pre	B-pre	C-pre	A-post	B-post	C-post
1	10.29	5.43	7.09	7.64	5.94	
2	4.94	5.43		4.42	2.34	
3	8.98	6.04		5.93	5.5	
4	11.24	9.17		3.53	2.59	
5	8.79	9.3		4.29	5.49	
6	7.82	7.46		5.8	4.87	
7	10.71	5.31		3.95	2.63	
8	4.97	4.2		8.92	4.58	6.57
9	9.11	8.03		5.23	5.46	
10	8.96	8		6.33	5.86	5.92

Note. A-pre=error rate of assessor A on pre writing sample, B-pre=error rate of assessor B on pre writing sample, C-pre=error rate of assessor C on pre writing sample, A-post=error rate of assessor A on post writing sample, B-post= error rate of assessor B on post writing sample, C-pre= error rate of assessor C on post writing sample.

Figure 4.2 and 4.3 present visuals of how the assessors were often, but not always, similar in their assessments. The results demonstrate that although the two primary assessors varied in how they rated errors, they both found that pre-tests had greater numbers of errors than post-tests, and in most cases, they followed similar error patterns. Three samples however, do significantly diverge between assessors. The pre-writing sample from participants 1 and 7 and the post-writing sample from participant 8 are of interest. Pre-test 1 and post-test 8 are two papers that also varied on the pass/fail status and were then reviewed by Assessor C; in both cases, C's error rates fell between those of Assessors A and B. The different assessment styles may have contributed to this larger difference in the assessments. In all three cases of highly divergent error rates between Assessor A and B, the students produced writing samples that were well organized, but contained a large number of *Grammar*, *Sentence*, and *Word* errors. Because they did not contain more heavily weighted *Paragraph* and *Structure* errors, and Assessor B tended to "forgive" many of the surface level errors, a greater discrepancy between error rates is

found. Because the first two assessors agreed that pre-sample 7 did not meet passing requirements, this piece of writing was not triply assessed.

In order to further evaluate whether or not there is a significant difference between the rate of errors on the pre- and post- writing samples, a 2-tailed paired t-test was run using the averages of all the assessments available for each writing sample. Table 4.5 provides the mean error rates for each participant's pre- and post- writing samples, based on the error rates that were listed in Table 4.4.

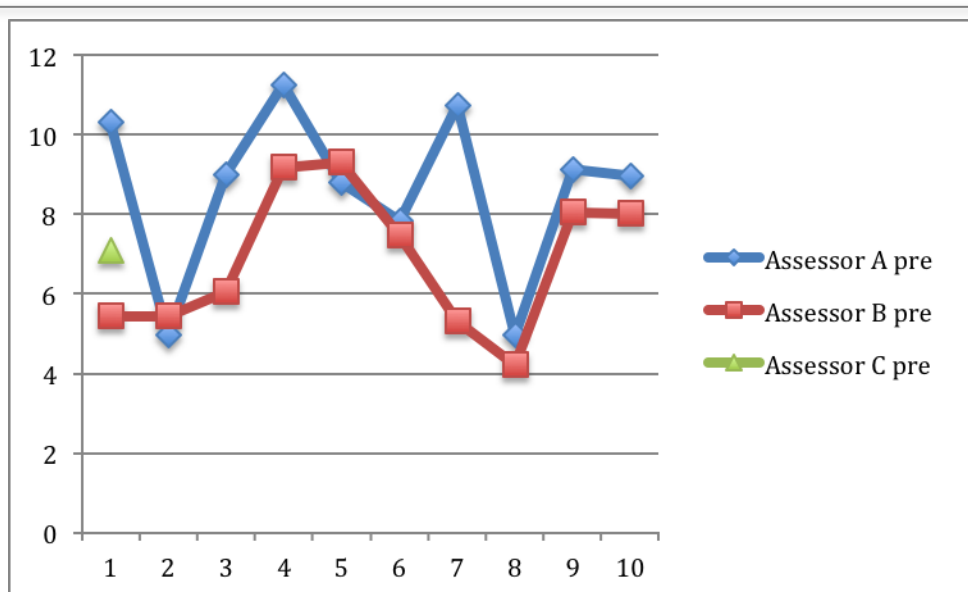


Figure 4.2 Error rates on pre writing samples.

Assessor A's error rates are represented by red squares, assessor B's by blue diamonds and Assessor C's by a green triangle. The error rate is determined by tallying all noted errors, weighting them then dividing by the total number of words in the writing sample.

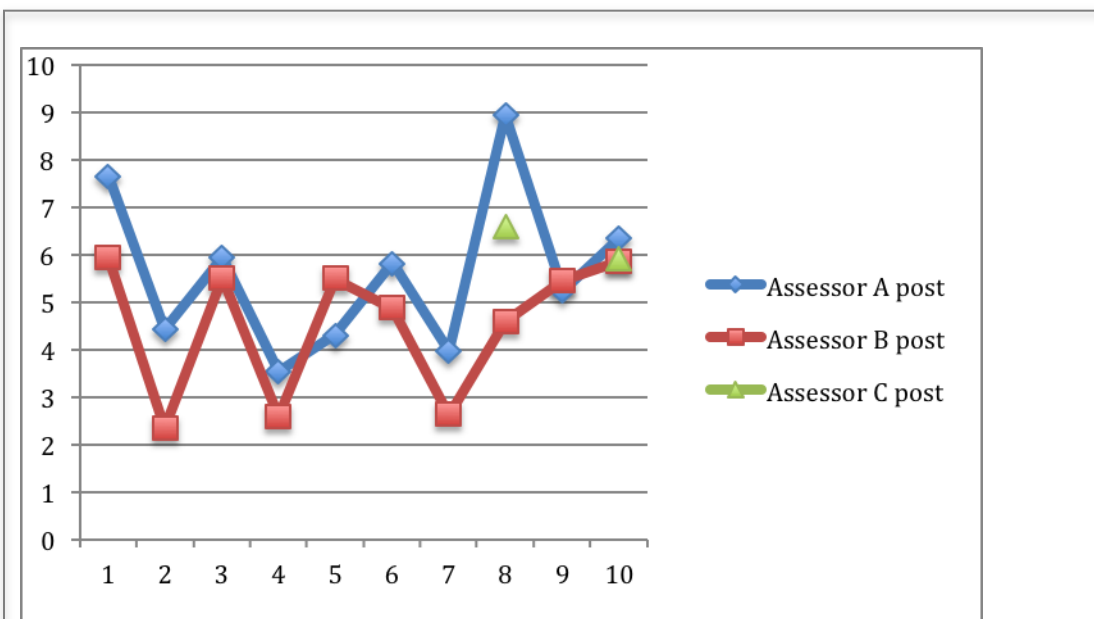


Figure 4.3 Error rates on post writing samples.

Assessor A's error rates are represented by red squares, assessor B's by blue diamonds and Assessor C's by a green triangle. Assessor C only marked papers where Assessor A and B differed on the pass/fail status of the paper. The error rate was determined by tallying all noted errors, weighting them and dividing by the total number of words in the writing sample.

Table 4.5

Error Rates on Pre and Post Writing Samples, Averaged over Assessors

Learner	Avg-pre	Avg-post
1	7.60	6.79
2	5.19	3.38
3	7.51	5.72
4	10.21	3.06
5	9.05	4.89
6	7.64	5.34
7	8.01	3.29
8	4.59	6.69
9	8.57	5.35
10	8.48	6.04

Note. Avg-pre= an average of the weighted error rates on the pre writing samples based on the results of assessor A, B, and C where applicable, Avg-post= an average of the weighted error rates on the post writing samples based on the results of assessor A, B, and C where applicable

* $p=.008$

The difference between the pre- and post- error rates is significant ($t(9) = 3.38, p = .008$). The mean difference over the 10 learners is 2.63, with a standard deviation of 2.46. The effect size of the difference over time is 1.70, indicating a large effect size, according to Cohen's (1988) guidelines, meaning the participants produced substantially more accurate writing upon completion of iEAP.

4.1.2. Lexical characteristics of iEAP pre- and post- writing samples

As described in greater length in Chapter Two, academic writing is characterized by greater lexical range and the use of more uncommon and academic words; more proficient writers have access to and draw words from a larger lexical pool. Just as academic and more proficient writing is characterized by a greater number of low frequency words, less proficient writing demonstrates a smaller lexical range, a lower lexical bar (Corson, 1997), and more dependence on high frequency words.

In addition to a writer's lexical choices, a well-considered writing prompt encourages writers to demonstrate their lexical knowledge by pushing students to use language and vocabulary to the best of their abilities and persuasive essays better tap into lexical potential than do narrative-style prompts about every-day experiences (Roessingh, 2013). The iEAP participants were given a writing prompt (see Appendix F) which was crafted to elicit best lexical performance from the students.

The number of high frequency words in the student writing samples was measured by determining how much of the writing sample was covered by the 1000 most common word families (K1) in the COCA and BNC. As noted in the Method section, tools on the Lextutor website are able to profile vocabulary based on these corpora. Using the *VP Compleat BNC COCA 25*, the students' pre- writing sample indicated that a mean of 82% of the writing is covered by the K1 word family band. There was a shift towards less reliance on high frequency

words in the students' post writing samples, where a mean of 78% of their words belong to the K1 band.

The mean difference is 3.53, the standard deviation is 4.18, and the pre- to post-test difference is statistically significant, where $p=.026$ in a 2-tailed paired t-test, $t(9)=2.67$. Furthermore, Cohen's $d=.73$ indicates a medium-large effect size (Cohen, 1988) over time. The results for all ten students can be found in the Table 4.6. Furthermore, it is notable that the post-samples were actually slightly shorter in length than the pre-samples, however the mean difference of 489.4 words on the pre-sample to 439.8 words on the post-sample is not statistically significant.

Table 4.6

Percentage of K1 Word Families on Pre and Post Writing Samples

Learner	Pre K1 %	Post K1 %
1	87.83	78.98
2	80.25	73.04
3	83.36	81.5
4	82.64	80.24
5	80.9	82.64
6	78.73	79.55
7	76.33	65.79
8	85.17	84.98
9	85.85	80.95
10	76.38	74.47
Mean	81.74	78.21

Note. Pre K1%=the percentage of word families in the pre writing sample that originate from the 1000 most common word families in the BNC and COCA, Post K1%= the percentage of word families in the post writing sample that originate from the 1000 most common word families in the BNC and COCA

* $p=.026$

The pre- and post- writing samples from iEAP demonstrate a decrease in K1 and K2 words, indicating that students used more academic and less frequent lexical items in their final

writing samples. The results are illustrated in Table 4.7 and show that the results of the pre- and post- writing sample performance are significantly better for the 10 students; according to a paired 2-tailed t-test $t(9) = 4.73$, where the mean difference is 3.60 and the standard deviation is 2.40 and $p = .001$. The effect size over time is Cohen's $d = 1.07$, which indicates a large effect size (Cohen, 1988). This was determined using the *Vocab Profiler v4.0* (Cobb, 2012a; Heatley, Nation & Coxhead, 2002), which reports the number and percentage of K1, K2, AWL, and offlist (all words not in the other three categories) words in a sample of text. Again, this corroborates the previous findings and indicates that students were indeed using fewer common word families in the writing sample produced upon completion of iEAP.

Table 4.7

Percentage of K1 and K2 Word Families in Pre and Post Writing Samples

Learner	Pre K1-K2	Post K1-K2
1	91.25	86.84
2	85.43	77.98
3	89.1	85.57
4	89.51	85.78
5	87.25	85.28
6	88.26	87.07
7	83.64	75.85
8	88.53	86.86
9	89.97	86.76
10	84.19	83.16
Average	87.71	84.12

Note. Pre K1-K2= The percentage of word families that, according to *Vocab Profiler v4.0* are in the first 2000 most common word families, but are not on the Academic Word List. These words represent the most frequent words in English and higher percentage indicates a greater reliance on more frequent and less academic words.

$p = .001$

The results from the pre- and post- samples indicate that students used significantly more AWL words in their post-writing samples and according to a paired 2-tailed t-test, $p=.041$, $t(9)=2.38$, with the mean difference being 1.34% and a standard deviation of 1.78. According to Cohen (1988), the effect size ($d=.64$) is medium. As much of iEAP was focused on the development of increased proficiency in academic English, the use of AWL on pre- and post-writing samples is also relevant. The *Vocab Profiler v4.0* (Cobb, 2012a; Heatley, Nation & Coxhead, 2002) also provided the percentage of word families from the AWL (Coxhead, 2000). Table 4.9 presents the raw percentages of AWL words that were used in student writing on pre- and post- samples. These results indicate that students produced more academically appropriate texts upon completion of iEAP.

Table 4.8

Percentage of AWL Words in Pre and Post Writing Samples

Learner	Pre AWL	Post AWL
1	5.13	5.10
2	8.40	12.69
3	5.53	5.67
4	5.88	6.76
5	7.50	5.49
6	5.13	7.80
7	8.48	11.17
8	4.62	6.81
9	6.36	7.09
10	8.19	10.00
Average	6.52	7.86

Note. Pre AWL= The percentage of word families on the pre- sample that, according to *Vocab Profiler v4.0* are in the AWL. Post AWL= The percentage of word families on the post- sample that, according to *Vocab Profiler v4.0* are in the AWL
 $p=.041$

The results of the students' pre- and post-writing samples in terms of the ratio of K3+word families and total word families are provided below in Table 4.9 and Figure 4.4. The mean difference for the 10 student pre- and post-samples is 3.40 and the standard deviation is 3.43. The results of a 2-tailed paired t-test indicate statistical significance with $p=.012$, $t(9)=3.14$. Again, according to Cohen (1988), the effect size over time is considered large, where Cohen's $d=.85$.

Table 4.9

Ratio of Word Families beyond the K3 Band in Pre and Post Writing Samples

Learner	PreK3+ family ratio	Post K3+ family ratio
1	5.55	12.68
2	17.42	16.98
3	9.09	14.9
4	11.03	14
5	12.82	13.18
6	14.58	14.19
7	18.41	26.42
8	10.04	13.74
9	10.46	17.48
10	15.28	15.08
Average	12.47	15.87

Note. PreK3+ Family Ratio= the total number of word families in the K3 word band and beyond divided by the total number of word families in the pre writing sample, Post K3+family ratio= the total number of word families used, divided by the total number of word families in the post writing samples.

* $p=.012$

As seen from the results above, the student writing demonstrated, according to a number of vocabulary measures, a richer lexicon than that produced on the first day of class. The next section will present findings on a measure of students' receptive vocabulary.



Figure 4.4 Ratio of word families beyond K3 word band in pre- and post- writing samples, box plot

The ratio of word families in the pre and post writing samples which are beyond the 3000 most common word families, divided by total number of word families in pre and post writing samples. Student 7 was an outlier on the post-sample.

* $p=.012$.

4.1.3. Gates-MacGinitie Reading Test.

Like the writing samples described above, the GMRT (MacGinitie & MacGinitie, 1992) was administered on the first and final days of the iEAP course. Table 4.10 outlines the pre- and post-test scores on the vocabulary section of the GMRT. The scores displayed are the ESS.

Table 4.10

ESS on Pre and Post GMRT Vocabulary

Learner	Pre-GMRT Vocab	Post-GMRT Vocab
1	499	557
2	629	599
3	492	572
4	520	576
5	566	603
6	575	594
7	556	603
8	561	619
9	561	589
10	571	585
Mean	553.1	590.7

Note. ESS=Extended Scale Score, GMRT=Gates MacGinitie Reading Test. Scores students earned on the Vocabulary Section of the GMRT, Level E, Form 4 (pre) and Form 3 (post).

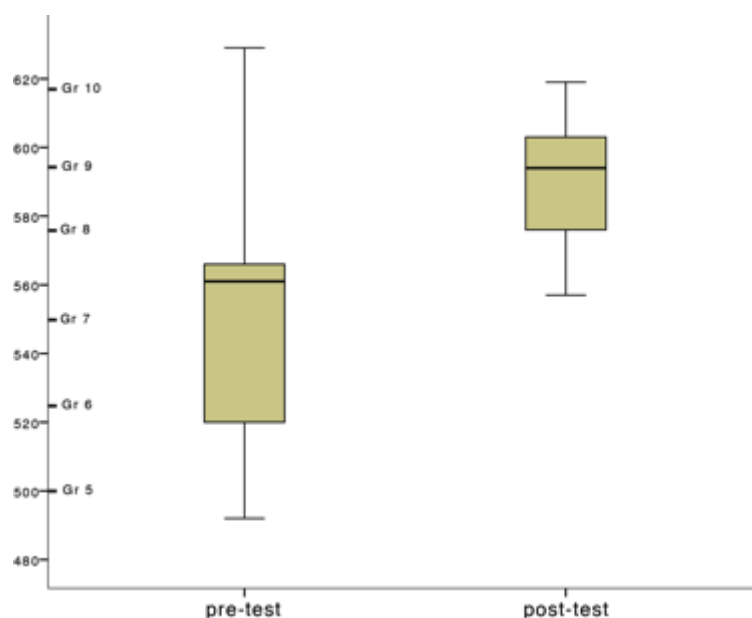


Figure 4.5 Extended scale score earned on pre and post GMRT (vocabulary), box plot

The Extended Scale Score (ESS) students earned on the pre and post GMRT (Vocabulary section). The y-axis indicates both the ESS and the Grade Equivalency (GE) scale.

* $p=.005$

As can be seen from Table 4.10 and Figure 4.4, the students with the lowest scores on their pre-tests made some of the largest gains on their post-tests. This may also account for a wider spectrum of scores on the pre-test. Although the ESS numbers are linear, improvement at the lower end of the scale is likely easier than toward the higher end. Additionally, there was a range of scores in both the pre- and post-tests.

It is worth noting that the student (participant 2) who scored the highest on her pre-test actually dropped substantially on her post-test. This is an interesting phenomenon which I can only attest to from what I observed in class: a pre-test done with the maximum allotted time and careful consideration and a post-test that was hastily done and handed in quickly on the final day of the program, with the student responding to text messages upon submission of the test. Despite this anomaly, a 2-tailed paired t-test indicated that the pre- and post-test difference is statistically significant, with $p=.005$, with $t(9)=-3.75$. The ten students' test results indicate a mean difference of 36.7 with the standard deviation 30.94. The effect size over time is considered large (Cohen, 1988), with Cohen's $d=1.18$.

In order to provide some context for the ESS scores, the GE scores are also provided both in Figure 4.5 and in Table 4.11. As can be seen from Table 4.11, the class GE average was rather low (mean GE=8.7), and even with cautious interpretation it is recognizable that the student participants on the whole had limited English vocabulary and were still well below grade level and what is demanded of university level study and post-secondary level reading materials.

Table 4.11

Grade Equivalency Scores on Pre and Post GMRT (Vocabulary)

Learner	Pre GMRT Vocab - GE	Post GMRT Vocab - GE
1	5	7.3
2	10.6	9.1
3	4.6	7.9
4	5.7	8.1
5	7.6	9.3
6	8.1	8.8
7	7.3	9.3
8	7.5	10.1
9	7.5	8.6
10	7.8	8.5
Mean	7.2	8.7

Note. These scores reflect the Grade Equivalencies (GE) of the scores earned by students on the Gates MacGinitie Reading Test Form E, Level 3 and 4 on pre and post-tests.

4.1.4. GMRT comprehension.

Although the pre- and post-test results indicate an impressive increase, or increased access to, vocabulary, the results of the comprehension component of the GMRT do not show the same gains. In fact, the results on the comprehension section are not particularly informative and few conclusions can be drawn from the results, which are not statistically significant. For the ten student participants, the mean ESS on the pre-test was 572.9 and the mean on the post-test is 585. The mean difference is 11.90 and the standard deviation is 27.79, $p=.209$ and $t(9)=1.35$. Because the results are not significant, no effect size measurements were determined.

Previous research (Roessingh, Kover & Watt, 2005) has found a similar phenomenon with younger and less proficient local ELLs, where they obtained comprehension scores approximately 2 GE beyond what they scored on the vocabulary section of the GMRT. They similarly found that vocabulary was the first score to improve, and the authors speculate that

“vocabulary development is the critical trigger for reading comprehension” (p. 16) and that once a threshold of vocabulary is reached, comprehension will quickly improve. Although I do not have follow up data except in the cases of Deeta (participant 3) and Mark (participant 7), who will be described in detail in sub-question 9, based on Roessingh, Kover and Watt’s (2005) findings and Grabe’s (1986) critical mass theory, which states that once a certain threshold of vocabulary is attained there will be an explosion, it is reasonable to predict that once the vocabulary is in place and ‘solidifies’, comprehension gains will similarly be made.

4.1.5. Productive academic vocabulary.

The results on the pre- and post-PAWT indicate that students increased their ability to select and correctly integrate target academic words. Table 4.12 illustrates the pre- and post-scores, and demonstrates that every student showed improvement on the second administration of the test on the final day of class.

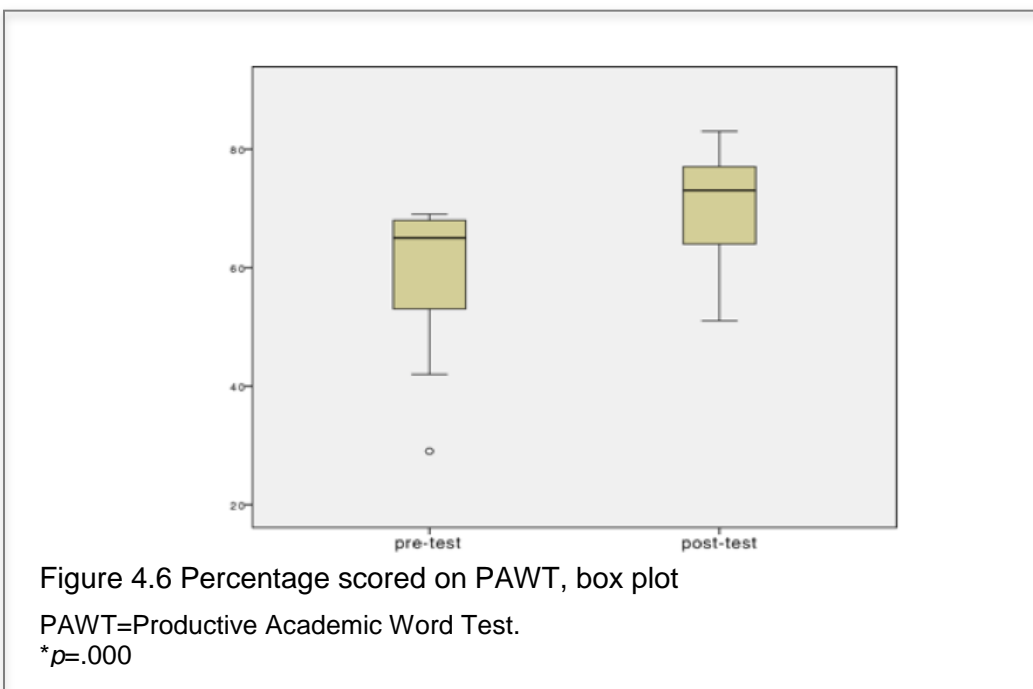
Table 4.12

Percentage on PAWT

Student	Pre Test Score %	Post Test Score %
1	29	51
2	69	82
3	53	64
4	64	76
5	54	68
6	69	72
7	68	83
8	68	74
9	42	60
10	66	77
Mean	58.2	70.7

Note. PAWT =Productive Academic Word Test

**p*=. 000



The mean score for all the students is 58.2% on the pre-test and 70.7% on the post-test. The mean difference is 12.50 and the standard deviation is 5.44. Not only did all the students improve on this test, but also the differences are statistically significant with $p=.000$ $t(9)=7.25$ according to a 2-tailed paired t-test. A measurement of effect size over time indicates a large effect size (Cohen, 1988), with Cohen's $d=1.04$. The results of both tests can be found below in Table 4.12 and Figure 4.6. There is also a strong positive correlation (Cohen, 1988) between the PAWT and GMRT Vocab scores, with $r=.57$ for the pre-tests and $r=.62$ for the post-tests.

4.2. Sub-Question 2

What characterizes the in-class and take home writing assignments of iEAP participants with regard to lexical profiles and instructor feedback? . This section discusses iEAP writing assignments produced by the iEAP participants to answer sub-question 2. The major weekly assignments were designed to ensure that students would be able to meet the specific goals of the course. The major assignments in all the classes reflected both the demands of the three units of

inquiry, as well as academic skills and language across genres; this is true of both in-class and take-home writing assignments

In order to answer this question, two types of writing assignments were analyzed: take-home and in-class. On a weekly basis iEAP students submitted a major writing assignment and, although support was given and peer editing took place during class time, the bulk of the work was done independently at home.

Because the assignment requirements differed, it is difficult to fairly compare different tasks or report on student progress in terms of lexical profiles; for example, due to the academic and scientific nature of the assignments 3 and 4, they produced more domain-specific and less frequent vocabulary.

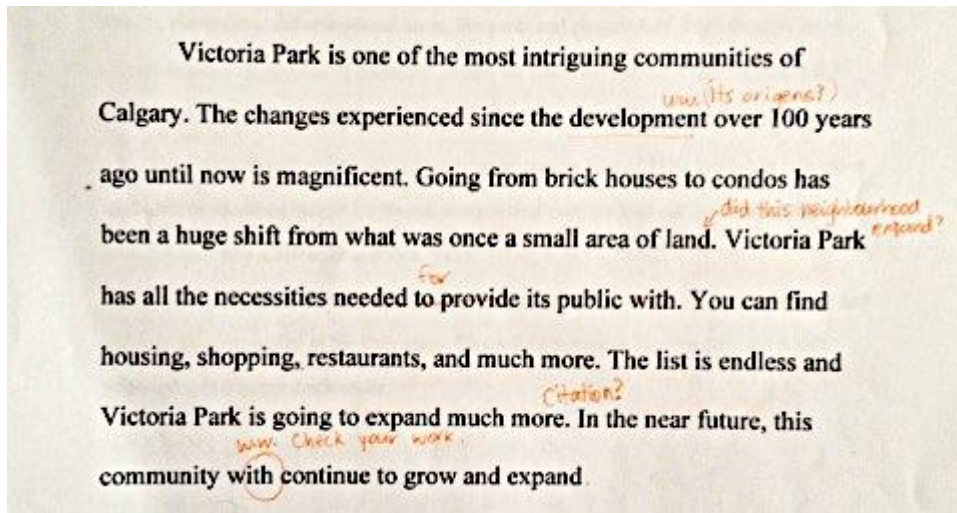
While the lexical characteristics have the power to describe productive vocabulary usage on a range of writing tasks, other areas, such as grammatical accuracy and academic writing, also exemplify the students' progression as writers throughout the duration of the six-week course. All of the major tasks assigned to the students can be found in Appendix G.

4.2.1. Major writing assignment one.

For assignment one, iEAP students researched a historic Calgary neighbourhood and wrote a report on it, incorporating current data, such as census information and other municipal information such as crime rates. This assignment was a logical step after the first week in which students were introduced to some of the major issues facing Calgary neighbourhoods.

Students could opt to work individually, or with a partner. In the case of iEAP 2010, one student (Mark -7) chose to work alone, but the others worked in pairs. In the end Sarabjit and Andrew (2 and 1, respectively) ended up submitting separate reports and were not able to communicate well enough to produce a joint project. Deeta and Rudrani (3 and 5) worked

It can be seen in Figure 4.7 that the introductory paragraph is disjointed, contains a number of surface level errors, and includes redundancies and fallacies. There is no obvious thesis statement and it is unclear what will be in the remainder of the report. The comments are instructor feedback on the work.



Victoria Park is one of the most intriguing communities of Calgary. The changes experienced since the development over 100 years ago until now is magnificent. Going from brick houses to condos has been a huge shift from what was once a small area of land. Victoria Park has all the necessities needed to provide its public with. You can find housing, shopping, restaurants, and much more. The list is endless and Victoria Park is going to expand much more. In the near future, this community will continue to grow and expand.

Handwritten annotations:
 - Above "development": *was (its origins?)*
 - Above "ago": *ago*
 - Above "small area of land": *did this neighbourhood expand?*
 - Above "provide": *For*
 - Above "expand much more": *Citation?*
 - Above "will continue": *will. Check your work.*

Figure 4.8 Assignment 1, conclusion, participant 2

Although this paragraph demonstrates less frequent vocabulary and better organization than the previous, it also demonstrates a lack of attention to detail with typos, which are marked. Sarabjit also makes some unsubstantiated claims. This, too, was a resubmitted document. Interestingly enough, she is describing the very same neighbourhood as in the previous example, so there are also clearly issues with content accuracy.

Chinatown is a symbol of solidarity of Chinese-Canadian. The richness in culture and history has inspired generations to improve Chinatown to be one of the most liveable communities. For instance, it has walkability, accessibility to shops, restaurants and malls, and convenient transit. With fast development, it has become the economic centre for not only Chinese, but also for everyone that can benefit from this community.

Figure 4.9 Participant 7, assignment 1, introduction

Mark was the only participant who did not have to resubmit this assignment for academic misconduct. Although there were surface level word and grammar errors, the assignment (Figure 4.7) was quite readable, met all the requirements, synthesized and presented a wide range of information, and demonstrated a good understanding of the topic. Mark's work received a passing (>70%) grade.

The lexical profiles also illustrate that there was a wide range of vocabulary produced. Students generated highly varied assignments, which ranged in length from 580 words to 1180 words, with a mean of 833.1 words. The assignments demonstrate varying dependence on the K1 word band according to the BNC-COCA corpora profiled using *The Compleat Web VP* (2013), ranging from 87.82% to 76.66% coverage (mean 83.64%). The number of AWL words is also diverse, ranging from 5.41% to 9.66% AWL words (mean 6.89%). The results for all of the participants are in Table 4.13.

Table 4.13

The Lexical Characteristics of Major Writing Assignment 1

Learner	Tokens	Compleat k1	VP AWL
1	621	85.69	5.31
2	652	80.86	6.75
3	936	87.82	5.66
4	580	81.38	9.31
5	936	87.82	5.66
6	580	81.38	9.31
7	942	76.66	9.66
8	962	85.55	5.41
9	1146	84.47	6.02
10	976	84.73	5.84
AVG	833.1	83.64	6.89

Note. Tokens = number of words, Compleat 1 = % of words from the K1 band of the COCA-BNC corpora, VP AWL = % of Academic Word List Words.

4.2.2. Major writing assignment two.

While the quality of this assignment was better than that of the first assignment, the students were still clearly struggling with academic expectations and the production of university level material. The majority of the students did, however, meet the requirements for this assignment. The second major writing assignment was the only academic essay the students were required to submit, save for the pre- and post-writing samples addressed in sub-question 1. Assignment 2 required students to produce an essay and respond for or against a choice of three statements. The following are excerpts from student assignments.

The most important reasons for downsizing Calgary, is the availability of more land for schools, universities, and recreational areas, like parks and playgrounds. Even though City of Calgary is spending millions of taxpayers' dollars for future development of recreational and educational areas, final results are mostly always insufficient to satisfy growing populations of citizens? city. "The Calgary board of Education is using up its reserve fund of \$19.1 million to help cover the \$1 billion operating budget for the upcoming school year, but that still leaves the public school system with a \$10 million deficit." (CBC News, June 15, 2010) Author, yeah How is this connected? Education is provincially funded. Also, schools Opportunity to group these multitasked centers within local districts will save a lot of money and will help improve quality of life Calgarians. This will be beneficial for everyone, and it will make living in Calgary much easier. Your argument is confusing → we should downsize Calgary because we already don't have enough land?

Figure 4.10 Participant 6, assignment 2, body paragraph 4

Although the grammar and word errors do not impact comprehension, the organization and content do. The paragraph (Figure 4.16) presents disjointed ideas about educational and recreational facilities, multitasked centers (which are never described), and a decontextualized quote about the local school board, none of which support the general thesis of the paper which calls for the city to put a limit on its borders and develop the inner city.

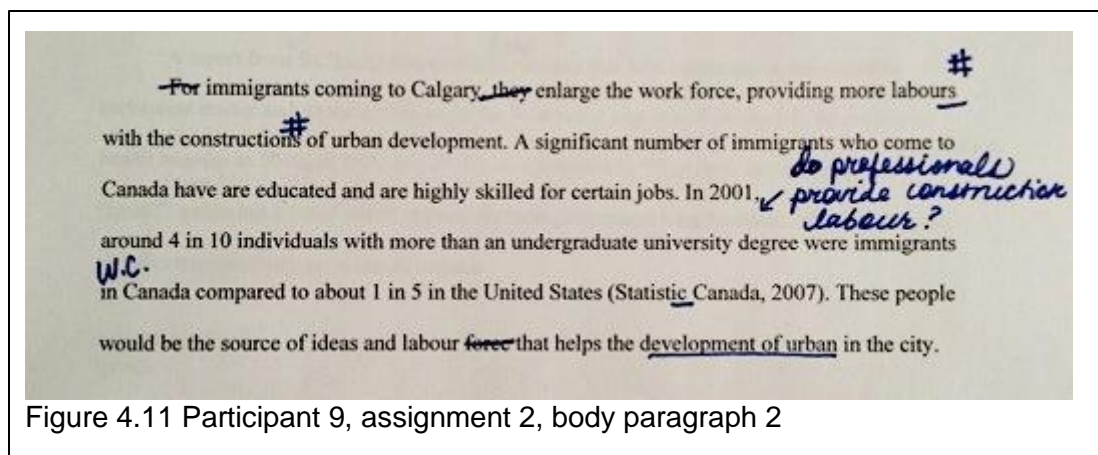


Figure 4.11 Participant 9, assignment 2, body paragraph 2

While there are surface level grammar errors, the excerpt in Figure 4.11 demonstrates the inclusion of outside sources and the logical support of her thesis, which was that immigrants are the catalyst for urban development in Calgary.

Table 4.14

Lexical Characteristics of Major Writing Assignment 2

Learner	Tokens	Compleat	
		k1	VP AWL
1	1074	78.77	9.88
2	897	78.82	10.13
3	842	85.87	6.18
4	751	76.96	11.98
5	955	86.18	5.16
6	576	79.17	5.56
7	844	72.51	11.63
8	741	86.5	3.91
9	1154	80.5	9.53
10	1258	83.07	5.64
AVG	909.2	80.84	7.96

Note. Tokens = number of words, Compleat 1 = % of words from the K1 band of the COCA-BNC corpora, VP AWL = % of Academic Word List Words.

Again, like in assignment 1, Table 4.14 shows that there was a large variation in what the students produced. The length of their assignments ranges from below the minimum length requirement (800-1000 words) at 741 words to well above it, with 1258 words (mean 909.2). The assignments similarly demonstrate very different levels of coverage by the first 1000 most common words, ranging from 86.5% to 72.51% (mean 80.84%). This indicates slightly less dependency on the most frequent words than assignment 1. The use of AWL words is particularly variable, ranging from 3.91% to 11.98% (mean 7.96%), which is also a slight improvement from assignment 1.

4.2.3. Major writing assignment three.

The third major writing assignment required the students to write a research proposal; this was done and submitted as part of the Science and Engineering unit of inquiry. Students had a choice of topics related to issues such as noise pollution, water quality, and air quality in the city. The proposal was to explain the importance of the proposed research and described how the research would be undertaken. This assignment pushed the most lexically proficient writing from the students, due to the formal and scientific nature of the task. At the time this assignment was submitted, students had begun to better understand academic requirements for written submissions at a university level, and they also likely responded well to the structured format demanded of the task. The following are some excerpts of student work on assignment 3.

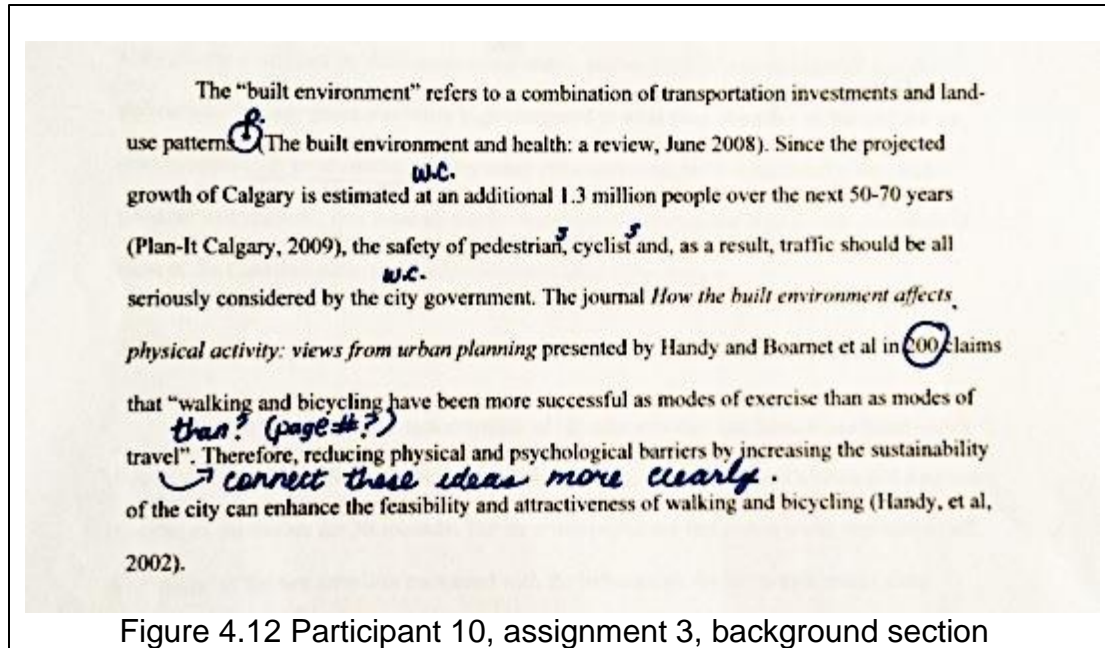


Figure 4.12 Participant 10, assignment 3, background section

Although there are still some remaining issues with referencing, the excerpt in Figure 4.12 demonstrates a greater facility with citation and synthesis than what was seen in previous assignments. This short example is supported, logical, and organized. The language used is academic in nature and low frequency words are well represented.

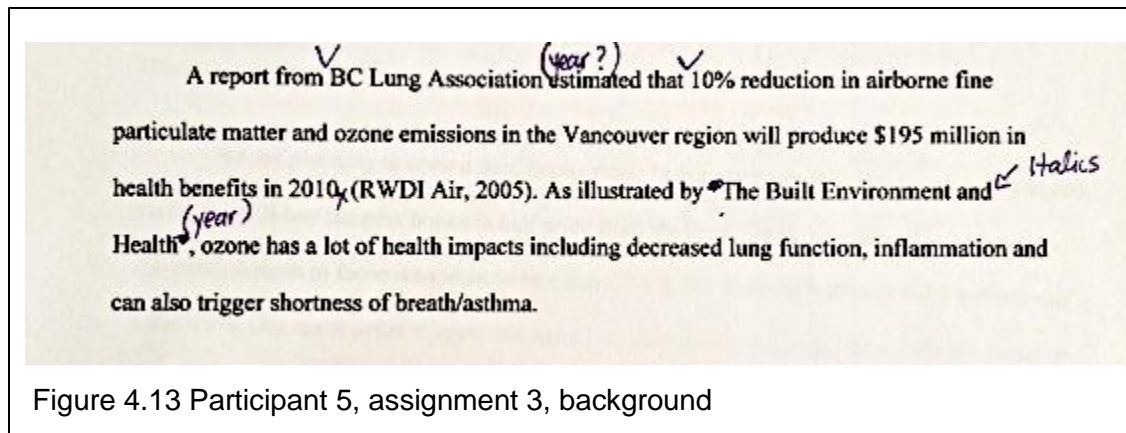


Figure 4.13 Participant 5, assignment 3, background

Again, a greater understanding of the incorporation of external sources and a greater use of academic vocabulary is demonstrated in the piece of writing in Figure 4.13. A marked improvement from the two previous major assignments is apparent, despite minor errors in citation and the connection of ideas.

Lexical measurements on all the participants' assignments also indicate that there is a decreased dependency on the most common words, and a greater use of AWL words; as in previous assignments, there is a wide range of proficiency demonstrated. There was no length requirement, and the assignments range from 530 to 1119 words, with a mean of 797. The use of the most common 1000 words from the BNC and COCA ranges from 81.45% to 67.08% (mean 75.67%), and the AWL usage ranges from 5.22% to 12.42% (mean 8.17%) as seen in Table 4.15.

Table 4.15

Lexical Characteristics of Major Assignment 3

Learners	Tokens	Compleat k1	VP AWL
1	819	79.85	9.16
2	716	73.88	12.03
3	880	81.48	5.57
4	640	76.56	3.75
5	732	67.08	9.43
6	633	81.36	5.22
7	1119	67.56	12.42
8	884	81.11	7.6
9	1017	74.83	5.9
10	530	73.02	10.57
AVG	797	75.67	8.17

Note. Tokens = number of words, Compleat 1 = % of words from the K1 band of the COCA-BNC corpora, VP AWL = % of Academic Word List Words.

4.2.4. Major writing assignment four.

Writing assignment 4 was closely connected to the previous assignment in which the students produced research proposals and required students to generate a lab report based on the research they had previously proposed. They were provided with data to interpret, and had to work backwards to determine how they had been collected. Many of the learners reported that this assignment was challenging because that they did not actually do the research themselves.

Despite their reported trials, the students also reported that they appreciated having a clear outline, rubric, and checklist. Similar to major assignment 3, the student work was of much better quality than the first two assignments, as indicated in the following samples.

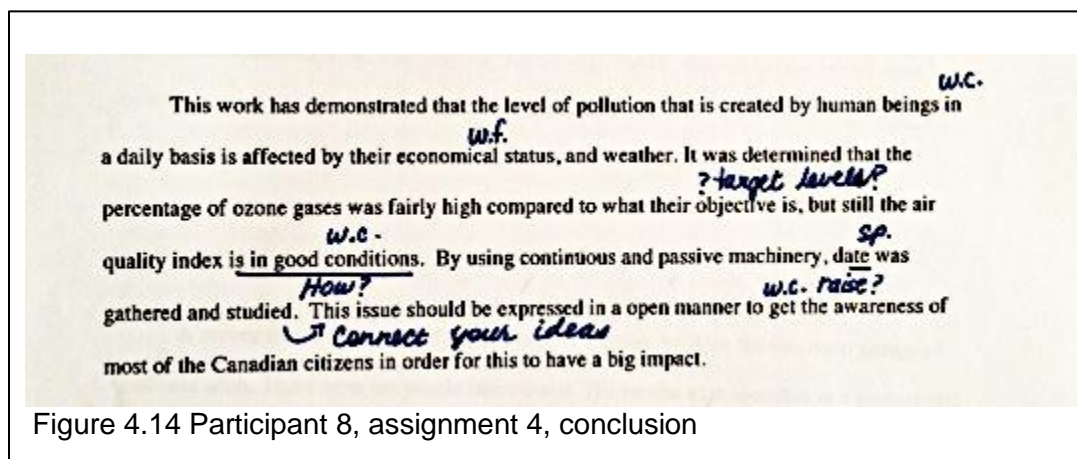


Figure 4.14 Participant 8, assignment 4, conclusion

It can be seen in Figure 4.14 that although some minor surface lexical errors are still present, along with inattention to detail, the level of writing and lexical choices are approaching a level suitable for first year study.

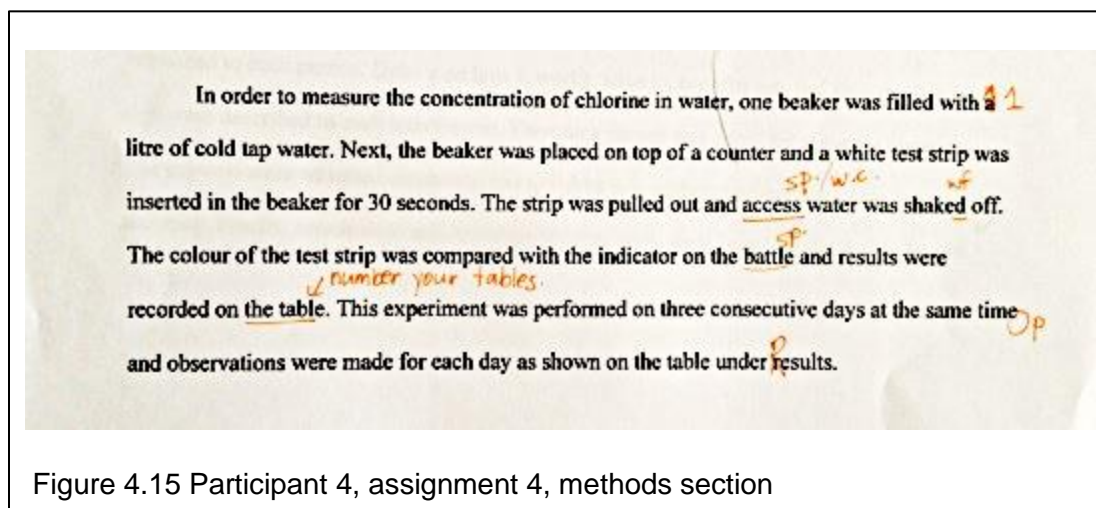


Figure 4.15 Participant 4, assignment 4, methods section

Despite minor surface-level, spelling, and punctuation errors, the writing in Figure 4.15 is organized and the language used is academic in nature. The process Adnan undertook to measure chlorine levels is clear and reproducible.

Once again, there is a range of performance among the students, which can be seen in Table 4.16. The range in length is particularly notable, from 501 to 1750 words (mean 991.6). The reliance on the most common 1000 words of English is also variable, with a range of 85.52% to 71.26% (mean 78.71%). The use of AWL also varies from 3.44% to 10.18% (mean 6.94%). It is striking that the shortest paper (participant 2, at 501 words) also demonstrates the best vocabulary usage.

Table 4.16

Lexical Characteristics of Major Assignment Four

Learners	Tokens	Compleat k1	VP AWL
1	810	84.07	6.67
2	501	71.26	10.18
3	1377	79.67	7.63
4	644	79.5	6.06
5	649	85.52	5.25
6	669	83.11	3.44
7	1740	72.41	8.85
8	778	74.68	8.48
9	1750	76.91	5.49
10	998	79.96	7.31
AVG	991.6	78.71	6.94

Note. Tokens = number of words, Compleat 1 = % of words from the K1 band of the COCA-BNC corpora, VP AWL = % of Academic Word List Words.

4.2.5. Major writing assignment five.

The fifth writing assignment was the first of two related assignments in the Business unit of inquiry. To successfully complete this task, learners had to produce a market survey report, which was to inform assignment 6, a concept statement. For this task, students worked in pairs and one triad. Participant 8's assignment 5 is excluded because it was completed with the one

student that did not consent to participate in this research. In addition, because the students worked together, it is more difficult to comment on individual performance. The following excerpts are illustrations of the level of writing in assignment 6.

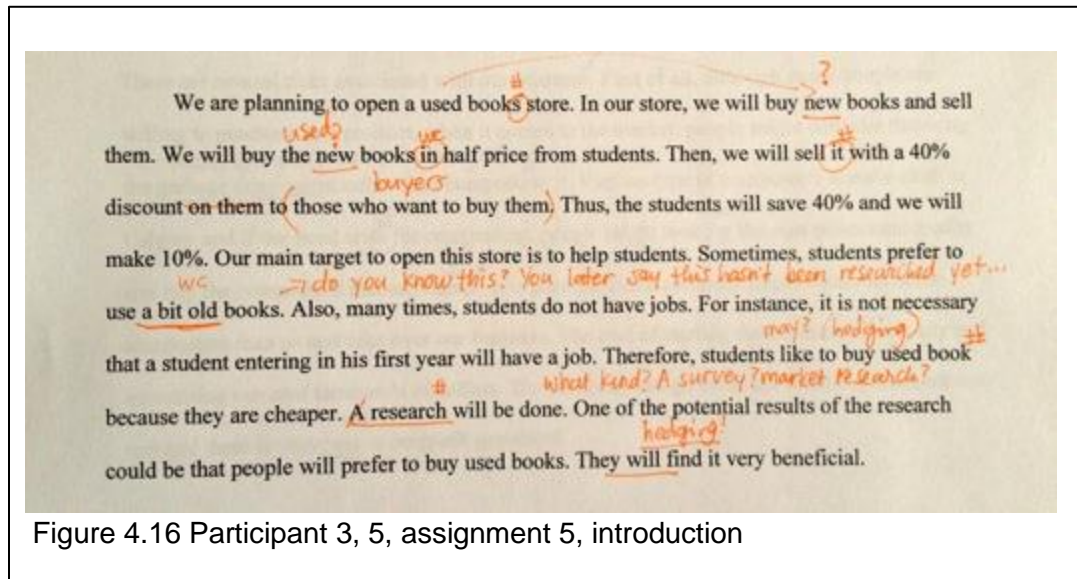


Figure 4.16 Participant 3, 5, assignment 5, introduction

Despite having been in class for four weeks and having produced superior work on the two previous assignments, this work indicates that students do not always generate what they are capable of, and progress is not always linear. The sample in Figure 4.16 reflects an unsatisfactory assignment. It received the lowest grade in the class, is unclear at times, lexically limited, and does not demonstrate appropriate register. While minor surface level grammar errors are present, this paragraph demonstrates good control over the language and presents the methods clearly and concisely. Suitably academic language is used, the register is appropriate, and protocol is followed.

A survey was conducted in the University of Calgary between the two main groups of youth and adult. There were ten people interviewed. The results were recorded as a support data for the marketing plan of this product. Firstly, the information about the machine was briefly explained to each person. Details on how it works, what its benefits are, and how much it would cost were described to each interviewee. Then each person was asked three survey questions. The answers were collected separately and raw data was analyzed several times for better accuracy. Finally, conclusions and recommendations were made based on the data collected.

Figure 4.17 Participant 9, 10, assignment 5, methods section

While minor surface level grammar errors are present in Figure 4.17, this paragraph demonstrates good control over the language and presents the methods clearly and concisely. Suitably academic language is used, the register is appropriate, and protocol is followed.

As expected, and as in previous assignments, a range of performance is demonstrated. Table 4.17 outlines the lexical characteristics of assignment 5. The submitted reports range from 797 to 1255 words (mean 1028.75). The percentage of the assignments' K1 words ranges from 84.57% to 71.28% (mean 76.7%) and the AWL ranges from 6.27% to 11.47% (mean 8.34%). By simply looking at the raw percentages of the output, it can be seen that the lexical results are the highest for this assignment. We must be cautious with interpreting these results, as the students worked together and likely produced better writing based on their pooled abilities or reliance on more proficient students.

Table 4.17

Lexical Characteristics of Major Writing Assignment Five

Learner	Tokens	Compleat	
		k1	VP AWL
1,4,6	816	78.55	7.48
2,7	1247	72.41	11.47
3,5	797	84.57	6.27
8	-		
9, 10	1255	71.28	8.13
AVG	1028.75	76.7	8.34

Note. Tokens = number of words, Compleat 1 = % of words from the K1 band of the COCA-BNC corpora, VP AWL = % of Academic Word List Words.

4.2.6. Major writing assignment six.

The final take-home writing assignment was closely related to assignment 5. While the previous task challenged students to do a market survey and evaluate a market need, the final assignment required students to present a concept statement for a business idea based on the market need.

The concept statement was essentially a truncated business plan.

Although this was the final major writing assignment, the data available are, unfortunately, the least informative. Once again, the students worked in the same pairs and triad. Participant 8's contribution has been excluded as he partnered with a non-consenting student and participants 9 and 10 never submitted their final assignment due to personal reasons. This leaves only three assignments from which to glean findings, and therefore, they should be interpreted only with great caution. Because of the limited sample, excerpts from all three assignment 6 submissions are included.

There are several risks associated with our business. First of all, although many people are willing to purchase this product, when it comes to the market, people might consider throwing ^{ww} i.e. ^{ww} throwing organic waste in the ^{ww} garbage ^{ww} the garbage convenient rather than composting it. Various type of composters already exist in Calgary and if the need arise ^{ww} for composting, people might look ^{ww} for the cost rather than quality and buy the composters that are cheap. It is possible that a company might construct better composters than us and take over our business. The cost of starting the business in ^{ww} new city and advertising can cost thousands of dollars. The company can go bankrupt if the expenses are not met and there is very ^{ww} less or no profit generated.

Figure 4.18 Participants 1, 4 & 6, assignment 6, risk section

Again, the vocabulary and register in this final assignment shown in Figure 4.17 are suitable for an academic setting, and although surface level grammar errors are still apparent, along with a lack of suitable connectors, they do not inhibit the communication of ideas.

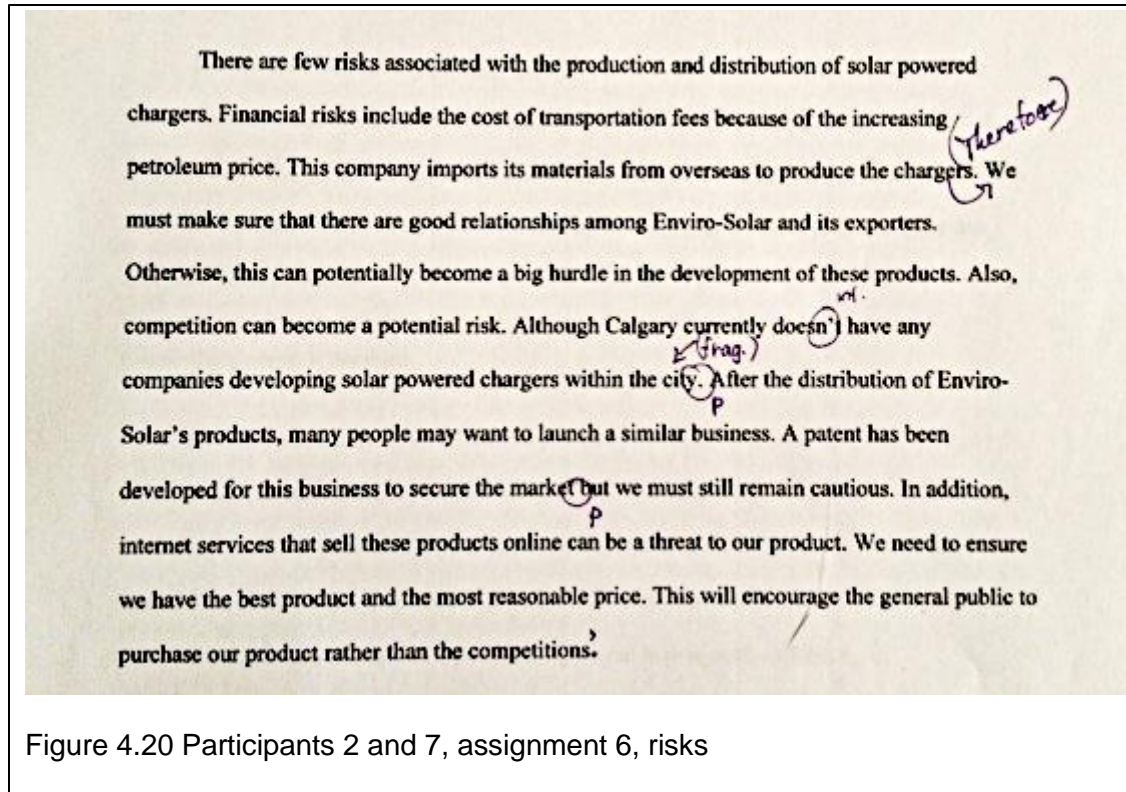
^{ww} do you mean 'the competition'?

In addition to the stores in Calgary, there are some other factors which might decide the success or the failure of our business. First, if students just want to buy new books, then our business can go down. ^{ww} Second, if other stores sell books for ^{ww} very less price, ^{ww} letting their ^{ww} budget ^{ww} whose? ^{ww} to go down, then the students may buy books from their stores for cheaper price. ^{ww} Next, if the students find books for free from any other social networking sites, they may not buy books from our store. However, there is a very ^{ww} less chance of ^{ww} it because the editions of the books keep changing every year or couple of years. Therefore, even if they get ^{ww} it for free, the books will not be accurate and of no use. — ^{ww} Won't this be a problem for re-sale, too?

Figure 4.19 Participants 3 and 5, assignment 6, risks

The piece of writing in Figure 4.19 is somewhat of an improvement to the level of work produced by this pair on assignment 5, but it still does not demonstrate proficiency with

academic language or register. The lexical characteristics described in Table 4.18 corroborate this assertion.



Again, minor punctuation errors and missing connectors are apparent in the writing in Figure 4.20, but the level of vocabulary, the organization and presentation of ideas, and the academic register used all demonstrate a level of writing that would be acceptable in a first year university classroom.

Table 4.18 illustrates the lexical characteristics of assignment 6. The length of the assignments ranges from 791 to 1192 (mean 984). The dependence on high frequency vocabulary is also rather variable, with the K1 % ranging from 89.16% to 73.93 (mean 81%). The range of AWL usage is also diverse, from 4.44% to 10.82% (mean 7.53%).

Table 4.18

Lexical Characteristics of Writing Assignment Six

Learners	Tokens	COCA K1	VP AWL
1, 4, 6	791	79.9	7.33
2, 7	1192	73.93	10.82
3, 5	969	89.16	4.44
8, 9, 10	-	-	-
AVG	984	81	7.53

Note. Tokens = number of words, COCA 1 = % of words from the K1 band of the COCA-BNC corpora, VP AWL = % of Academic Word List Words.

4.2.7. In-class vocabulary assignments.

The second type of writing assignment contributing to sub-question 2 is the in-class writing. At the end of each unit of inquiry, students chose from three topical prompts and were instructed to produce a coherent response to one. The key part of this assignment is that the learners were required to employ the target vocabulary from the previous two weeks. The students were aware of what vocabulary items would be included in the assignment, but, to ensure that their responses were spontaneous, the prompts were only released at the time of writing. Although they were given a list of about 30 words for each in-class assignment, they only had to use 20 of them in their written work. Students could opt to use the words in various forms: verb, adjectival, substantive, etc. Because learners chose from a variety of prompts, it is not fair to assess or compare their lexical profiles, as the different prompts elicited different types of responses. However, these in-class assignments still offer good descriptive insights about the students' ability to work under pressure to incorporate and accurately produce target academic language. These assignment tasks can also be found in Appendix G.

The lexical characteristics of these assignments do not provide accurate indications of student performance, largely as a consequence of the task set to them. Since the task itself demanded the students use academic vocabulary, the percentage of AWL words used was

artificially inflated, thereby decreasing the percentage of K1 words used. The different approaches taken by the students also confounded the results; while some students (participants 2 and 8 in particular) tended to write rather short responses (from 137 and 117 words respectively) this resulted in understandably high AWL results (17.52% and 22.22% on those respective assignments). Other students tended to write longer responses to incorporate the required minimum of 20 target words. Participant 3, for example wrote a very lengthy 698-word response, of which 8.17% were AWL words (compared to the overall mean of 11.51%).

Table 4.19

Lexical Characteristics of Combined Vocabulary Assignments

Combined Tokens	Compleat K1	AWL
9492	78.07	11.51

Note. Tokens = number of words, Compleat 1 = % of words from the K1 band of the COCA-BNC corpora, VP AWL = % of Academic Word List Words.

Despite the fact that the lexical characteristics are not especially informative, they are reported here to demonstrate the profiles produced by students for this particular assignment. Table 4.19 presents the key lexical characteristics of all of the vocabulary assignments (1-3) for all participants, combined. Tables 4.20, 4.21, 4.22 respectively indicate the number of tokens, K1 words according to *The Compleat Web VP* BNC-COCA, and AWL words on each student's assignments.

Table 4.20

Tokens of Individual Vocabulary Assignments

Learners	v1.Tokens	v2.Tokens	v3.Tokens
1	510	389	330
2	137	210	239
3	506	636	698
4	290	246	333
5	296	292	303
6	297	333	260
7	206	278	205
8	187	117	171
9	368	236	345
10	401	312	332
avg	319.8	304.9	321.6

Note. v1= vocabulary assignment 1, v2=vocabulary assignment 2, v3= vocabulary assignment 3, tokens=number of word

Table 4.21

Percentage of K1 Word Coverage on Individual Vocabulary Assignments

Learners	v1 Compleat k1	v2 Compleat k1	v3 Compleat k1
1	82.55	70.95	77.27
2	73.72	70.48	76.99
3	85.77	78.3	81.52
4	82.76	71.95	84.08
5	80.74	77.05	75.91
6	83.84	72.37	73.08
7	65.05	57.19	62.73
8	78.61	64.96	72.51
9	80.16	74.58	79.42
10	83.29	73.72	72.59
avg	79.649	71.155	75.61

Note. v1= vocabulary assignment 1, v2=vocabulary assignment 2, v3= vocabulary assignment 3, Compleat K1=% of words from the 1000 word band.

Table 4.22

Percentage of AWL on Individual Vocabulary Assignments

Learners	v1.VP AWL	v2.VP AWL	v3.VP AWL
1	10.39	14.65	13.33
2	17.52	14.76	11.3
3	9.68	11.79	8.17
4	14.88	14.23	8.11
5	13.85	10.27	13.86
6	9.76	13.51	15.38
7	19.9	21.58	18.05
8	11.76	22.22	15.79
9	5.43	14.41	14.49
10	7.98	12.82	13.86
avg	12.115	15.024	13.234

Note. v1= vocabulary assignment 1, v2=vocabulary assignment 2, v3= vocabulary assignment 3, VP AWL of words from the Academic Word List.

The grades indicate that students were able to better incorporate the vocabulary into their own writing in more meaningful and accurate ways. The mean grade for the first vocabulary assignment is 60.8% (SD 15.98), the second assignment mean is 65.1% (SD 16.86) and the final assignment is 74.6% (10.64). When comparing the first and final assignment, a 2-tailed paired t-test indicates that $t(df=9) = 2.57$ with $p=.03$. Cohen's d is 1.02, indicating a large effect size (Cohen, 1988).

While these results are not especially meaningful, it is useful to look at student performance and grades received. These productive vocabulary assignments were primarily used to ensure that new vocabulary was not just passively acquired, but also actively used. The assignments were marked based solely upon how well the target vocabulary was incorporated into a coherent response; each correctly used target item was awarded one mark. To be awarded a mark, the word had to fit in both semantically and syntactically and no half marks were

awarded. Students could opt to use more than 20 words, and their grade was then tallied based on the number of successful attempts. For example, if a student chose 25 of the words and used 20 correctly his or her mark would be 80%, but if a student chose 20 words and used them all correctly, the mark would be 100%. Table 4.23 outlines the student marks on the three in-class vocabulary assignments.

Table 4.23

Percentage Scores on In-Class Vocabulary Assignments

Learner	Vocab 1	Vocab 2	Vocab 3
1	47	40	55
2	80	95	95
3	64	43	72
4	65	65	70
5	50	63	69
6	70	85	80
7	65	68	70
8	72	71	75
9	25	55	85
10	70	66	75
average	60.8	65.1	74.6

Note. vocab1= vocabulary assignment 1, vocab2=vocabulary assignment 2, vocab3= vocabulary assignment 3.
 $p=.03$

In order to contextualize these findings and student progression, it is useful to look at the student work itself. The three excerpts in Figures 4.21-4.23 illustrate the range of student performance on this assignment.

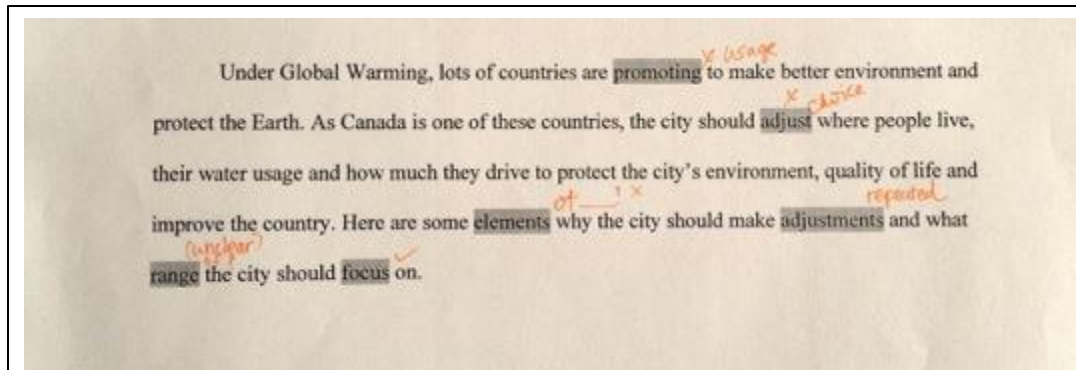


Figure 4.21 Participant 1, Vocabulary assignment 1, introduction

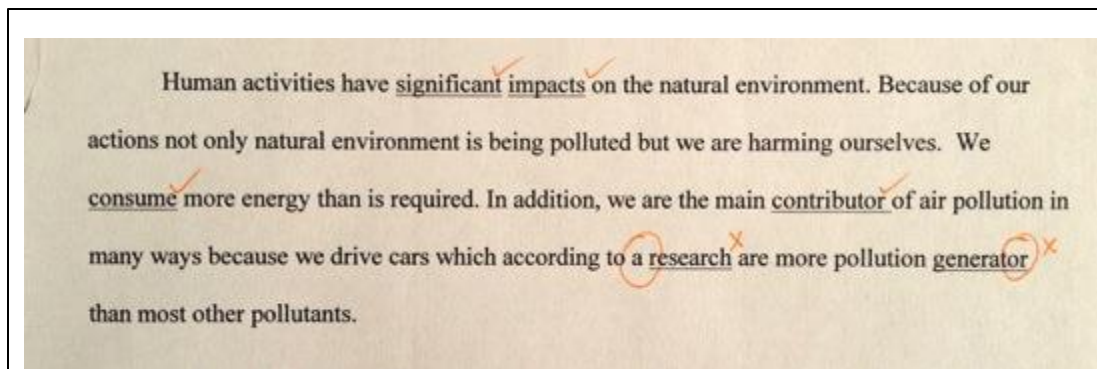


Figure 4.22 Participant 4, Vocabulary assignment 2, introduction

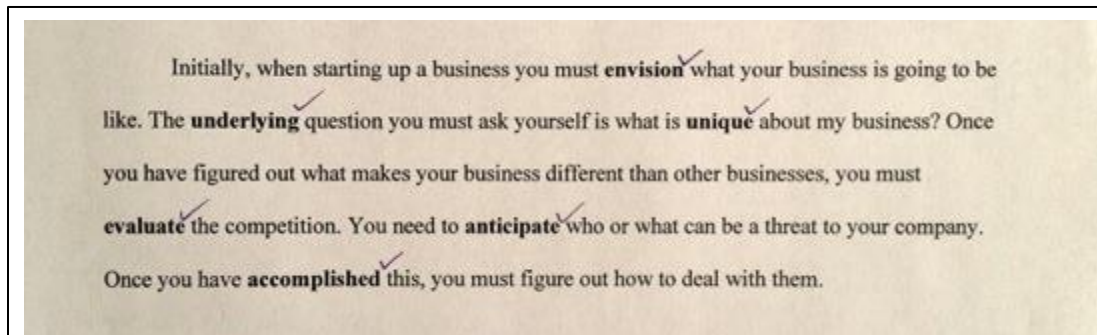


Figure 4.23 Participant 2, Vocabulary assignment 3, introduction

4.3. Sub-Question 3

What characterizes the oral presentations of iEAP participants with regard to lexical profiles and qualities? This section will investigate in-class oral presentations by analyzing the parts of

the transcripts and looking at the lexical characteristics of the iEAP participants' oral output on these assignments in order to answer sub-question 3.

Similar to the major written assignments addressed by sub-question 2, the major oral communication assignments also were designed to ensure that students reach predetermined targets. These oral assignments took place at the end of each unit of inquiry and were directly related to classwork or major written assignments. The first major oral assignment was an in-class debate, the second was a presentation of the lab reports, and the third was a business pitch for their business plan.

4.3.1. Major oral assignment one.

The first major oral assignment was done on the final day of the Social Sciences and Humanities unit of inquiry. For this assignment, learners held a debate addressing whether or not the City of Calgary should be permitted to continue expanding beyond its current footprint. The students watched a documentary filmed in Calgary (Radiant City, 2006) about the issues of sprawl, online videos of city council proceedings, and other examples of debate. In pre-assigned groups, they were provided with class time to prepare for the debate. They were also encouraged to further prepare their arguments at home.

The debate itself followed a typical formula outlined below. The students were aware of the structure of the debate. The instructor videotaped and timed the debate, but did not intervene except to indicate the time and provide structural instruction.

TEAM A: 2 minute introduction

TEAM B; 2 minute introduction

[one minute to prepare]

TEAM A: 2 minute rebuttal

TEAM B: 2 minute rebuttal

TEAM A: 4 minutes to respond to Team B's questions

TEAM A: 4 minutes to respond to Team A's questions

[one minute to prepare]

TEAM A: 1 minute closing remark

TEAM B: 1 minute closing remark

To present the lexical characteristics of student performance on this task, the major oral assignment from the first cohort of students is used because it is easier to present. The student numbers in the second cohort were limited and one student's data is excluded due to non-consent.

In general, the participants struggled to fill the allotted time for their prepared statements, but became more animated during the rebuttal and question and answer sections of the debate. In the less scripted and more open-ended sections, the discussion often descended into circular back-and-forth arguments that were not always clearly expressed. Furthermore, there was a wide spectrum of participation between learners, with Andrew (participant 1) speaking for less than 30 seconds during the scripted concluding remarks. Other students tended to dominate the debate, while others were frequently interrupted. Table 4.24 outlines the lexical characteristics of the debate according to each student separately and the class as a whole.

In order to prepare the debate for lexical profiling, first it was transcribed, using Dubois et al's (1992) discourse transcription conventions, which can be found in Appendix I. Then, the words uttered by each participant were compiled individually. Once all of the utterances were organized by learner, the transcript was prepared and input into the vocabulary profiler. For a more accurate reflection of their performance, all 'uh' or 'um' utterances were flagged and excluded in order to avoid artificially inflating the number of offlist words; similarly, in cases of

errors which would put a relatively common word into the offlist category, the word was corrected to be a better reflection of the lexicon, for example the word *equipments* was changed to *equipment*.

As illustrated in Table 4.24, there was a wide range of student participation and performance. Participant 1, Andrew, for example, only uttered 50 out of the nearly 3000 words recorded. His voice was very quiet and not all of his utterances could be understood for the purposes of transcription, despite multiple attempts. Because Andrew's contribution was limited, little can be gleaned from his lexical profile results. His lack of spontaneous participation is perhaps more telling.

Table 4.24

Lexical Characteristics of Major Oral Assignment 1, 2010

Learner	TOKENS	Compleat	
		%	AWL%
1	50	84	6
2	286	93.01	3.68
3	564	92.2	5.85
4	508	88.58	5.51
5	581	89.85	5.16
6	604	91.39	3.31
7	363	81.27	8.26
AVG	422.29	88.61	5.40
TOTAL	2964	89.57	5.23

Note. Tokens = number of words, Compleat 1 = % of words from the K1 band of the COCA-BNC corpora, VP AWL = % of Academic Word List Words.

With the inclusion of Andrew's contribution, the mean number of tokens is 422.29 (SD 202.62), and it is 484.33 (SD 130.1) when his contribution is excluded. The percentage of utterance coverage from the K1 band of words according to the *VP Web Compleat* also varies:

88.61% (SD 4.41) and 89.38 (SD 4.28) when Andrew's contribution is excluded. The percentage of AWL coverage in the utterances is 5.4% (SD 1.64) and 5.3% (SD 1.77) when participant 1's data are excluded.

There was a wide range of student performance and lexical profiling indicates that, in general, the students used fewer academic words and more frequent vocabulary items than they did in their written assignments, and this is a typical difference between spoken and written language samples. An analysis of some selected excerpts from this debate provides more telling information about student performance. This debate transcript in its entirety can be found in Appendix J.

~ADNAN; Just about the oil and gas thing.

As she said that we have fossil fuels and stuff for our future use but it's like we can't only depend on fossil fuels and stuff.

They're like, you know, they are not, like, renewable resources so we can't just say, like, because we have oil and stuff we can get like more people to come here and work because that, like you know the way it's really getting expensive and stuff so it's like, like. The point is not demand so like the income for country for us so like you expand the city and stuff the borders and stuff you're also like affecting other organisms like wildlife because you expand the city more there's gonna be less farmers, less farm land for farmers and stuff.

There's gonna be like shortage of food and stuff too but as the population grows we keep on expanding into farms and stuff there's gonna be like more people but less food as all the farms are like being destroyed.

And they are like making more houses and this creates pollution?

It affects humans and stuff and also you are destroying wildlife too, so this is like, I think the main reason not expanding Calgary 'cause its interferes with other countries' borders like maybe can goes to Edmonton and stuff and also like as you expand more and more, people are like spreading apart and stuff like there's like there's not going to be any like community.

People are going to move apart and stuff.

People are hardly going to talk to each other and stuff like it's going to be like everyone going apart and stuff so as more people move apart less people-

± TIMER

This excerpt is part of Team B's introductory remarks. It begins where Adnan (4) takes over from Samad (6) to add to their argument that the city should not increase its current

footprint. Although Adnan appears to have a few notes written down, he is not reading from them and he clearly struggles to present his ideas in an organized way. This excerpt included 289 words, is more than half of Adnan's contribution to the entire debate and it took one minute and 36 seconds for him to utter.

During this speech, Adnan uses the word "like" as a filler word 25 times. The word "like" in modern speech is often used as a hesitation device, and can signal the speaker is having difficulty in finding the right word or planning speech (Andersen, 1998). The over-representation of this word indicates a certain disfluency in Adnan's speech and a difficulty with presenting his ideas. A brief look at an excerpt from his speech above indicates that the message is not being satisfactorily relayed: his argument is convoluted and instead of coming to a conclusion with his ideas, he instead uses the word 'like'.

ADNAN; They [FOSSIL FUELS]'re **like**, you know, they are not, **like**, renewable resources so we can't just say, **like**, because we have oil and stuff we can get **like** more people to come here and work because that, **like** you know the way it's really getting expensive and stuff so it's **like, like**.

Another colloquial phrase over-represented in Adnan's speech is the phrase "and stuff," which is uttered 15 times in one and a half minutes (289 words). Similar to his use of "like," this phrase indicates both hesitation and a difficulty accessing words or ideas. Rather than being able to produce the specific words required of the task, he uses "and stuff" to indicate that there is more to be said about this topic, but he is not able to elaborate.

Besides the apparent difficulties in accessing appropriate lexical items, Adnan also demonstrates much difficulty making a coherent argument. He does not complete his idea about fossil fuels, nor does he adequately connect his argument about non-renewable resources not guaranteeing that workers will come to Calgary seeking jobs. He attempts to make an argument

about prices, but does not complete or connect it. He then moves on to discuss the matter at hand and argues that expanding the footprint will affect wildlife and food supplies and interfere with other cities' boundaries. He also argues that with a larger footprint, people will be more isolated and communicate less. Some of his arguments are relevant to the debate, but they are very difficult to access because of their presentation. Only after transcribing and mapping out his ideas was I able to determine what Adnan was trying to say, and still in a few instances I was not at all able to make sense of his argument.

While the results of this debate were disappointing, they indicate that the oral skill set that we had thought these students would be most adept with, was an aspect that required much more consideration. Unfortunately, these characteristics were not limited to Adnan's speech. Similar examples were evident in all students' oral production. As the debate was videotaped and made available to the students, they were able to gain an outsider's perspective by later watching themselves. The learners reported recognizing that the debate that took place in class that day was not appropriate for an academic setting, nor did it meet the requirements of the task. Upon viewing the video, speech patterns such as the over-use of "and stuff," "like," or "uh" were apparent, and the students sought to ameliorate these aspects of their speech and improve their academic presentation skills. As discussed in Chapter Two, these LM learners are often thought of as being conversationally fluent. Listening to the debate, it is clear that they are able to speak at length; however, when an analysis is done, it is apparent that their conversational abilities are not successfully transferring to their academic oral performance.

While the entire debate for the 2010 iteration is available in Appendix J, the debate recording and transcript for the 2011 class is incomplete and includes data from the non-consenting student. Due to technological difficulties, the debate was not recorded in its entirety,

and for this reason I have not discussed it. Instead, I present just the lexical characteristics of the introductory statements, which were successfully recorded and later transcribed. Table 4.25 describes these lexical characteristics.

It can be seen that during the second iteration of iEAP, the students were generally more successful at producing a debate with academic register and language more appropriate to the task. The instructor during the second iteration had access to the original debate videos and was aware that the first cohort had struggled with the task. For that reason, she had better prepared the students to produce academic discourse. The 2011 students had also been given more class time to rehearse and get feedback on their arguments. Table 4.25 indeed demonstrates improved lexical characteristics through the greater use of academic vocabulary and less reliance on the most common 1000 words in English.

Table 4.25

Lexical Characteristics of Oral Assignment Three, 2011

Learner	Tokens	K1	
		Compleat	AWL %
8	309	88.67	4.21
9	161	80.12	9.32
10	243	81.07	8.23
Avg	237.67	83.29	7.25

Note. Tokens = number of words, K1 Compleat = % of words from the K1 band of the COCA-BNC corpora, AWL = % of Academic Word List Words.

4.3.2. Major oral assignment two.

The second major oral assignment consisted of an individual presentation which accompanied their fourth writing assignment: the lab report. Each presentation was approximately four to five minutes long and was accompanied by visual aids. While participants could use notes to assist

them, they were not permitted to read directly from them. The vast majority of the presentations were within this time frame, although Mark's (7) and Adnan's (4) were a bit longer at seven and six minutes respectively. Unfortunately David (8) was not able to attend class on the day of his presentation and was not recorded when he subsequently did his presentation.

As can be seen from Table 4.26, this assignment pushed the learners to better employ academic and rarer vocabulary. The task itself demanded greater reliance on rare words because of its formal nature, but at this point in the course, and in response to the first oral assignment feedback, they had become more aware of the academic expectations for oral presentations. Again, it is difficult to adequately compare the two assignments because of the different expectations, as well as the varying numbers of words produced; the second assignment produced nearly double the number of tokens by each student.

Table 4.26

Lexical Characteristics of Oral Assignment Two

Learner	Tokens	K1 Compleat	AWL %
		%	
1	479	82.05	9.39
2	774	81.01	6.57
3	836	89.11	3.23
4	937	83.35	2.45
5	723	88.93	3.6
6	698	80.37	4.73
7	729	80.8	6.45
8	-	-	-
9	406	85.22	4.19
10	397	80.86	7.05
avg	664.33	83.52	5.30

Note. Tokens = number of words, K1 Compleat = % of words from the K1 band of the COCA-BNC corpora, AWL = % of Academic Word List Words.

The previous section demonstrated an example of the difficulties that the students had in using academic register and accessing appropriate vocabulary. Again, Adnan's presentation demonstrates that these difficulties can be largely overcome. Of the 937 words uttered, he used "and stuff" just once (compared to 15 times in 289 words in assignment 1) and "like" 15 times (compared with 25 times in 289 words). The following is an excerpt from Adnan's second oral assignment and demonstrates a marked improvement.

~ADNAN; My name is ~Adnan and I'm going to talk about the chlorine in water.
(1.2)
So my main focus will be about the amount of chlorine that is used in water and the way to red-
the ways to reduce the chlorine level in water.
The second thing I'm going to talk about is the negative effects of chlorine on health and finally the last thing I'm going to talk about is the ways to minimize the effects of chlorine on our health.

As seen in the above example, Adnan is using more academic vocabulary: *focus*, *negatively*, *finally*, and *minimize* are all AWL words. I should also note that comparatively Adnan used very few AWL words (3.6% while the mean was 4.84%); this lower percentage could also be due to the fact that his presentation also contained more tokens (937, while the mean was 664.33) and was therefore more likely to repeat high frequency words. His speech was also easier to follow, and he provided a clear and concise outline of what he intended to discuss in his presentation. While there was certainly room for greater use of academic diction and some minor surface level errors of agreement, the difference between this and his performance on the first task was remarkable.

The other sample of student work presented is that of Andrew. As previously mentioned, Andrew was often rather mute during class time and only verbally participated very minimally

and when prompted. Because unlike in the debate or assignment 3, assignment 2 was done individually, it required Andrew to speak without deferring to classmates or partners. As can be seen from this excerpt, Andrew was at times difficult to understand because of his low volume; his speech was also filled with long pauses. Andrew's oral skills were aligned with those of an international student, and he had a marked accent and there were intelligibility issues at times. Although Andrew's oral characteristics were not typical of the other iEAP participants, who were, in general, much more fluent in their speech, I include an excerpt as an example of his speech.

~ANDREW;

From research noise can impact humans' life and physical health, and also the research illustrate the noise have potential outcomes of low ability to concentrate and more aggressive behavior and higher stress levels.

As well it impacts humans during development and according to the World Health Organization's guidelines, children are the easiest to affect by noise who have hearing impairment and children are the easiest to get it because their body function are not well developed and

(3.2) and

(3.4). Next slide.

(3.0) ### Can create unhealthy, uh, physiological for human and (17.3)

((LOOKING AT SLIDES)) and this three, these four impacts are easier to affect your English first language, uh, the ability to comprehend, memory function, and concentration and learning difficulties (8.0)

Usually people in Calgary don't know well about noise compared to air pollution.

As can be seen, the pauses in his speech are very lengthy: up to 17.3 seconds in one case. His volume is very low, speech unclear, and there were many examples of surface errors, making it quite taxing for listeners. While his written work is often very organized and logical, this skill did not transfer to his oral presentation despite obvious preparation and frequent referral to his notes. To provide a contrast to Andrew and present more typical oral qualities of iEAP students, findings from the third oral assignment are presented next.

4.3.3. Oral assignment three.

In pairs and one triad, the learners made a business pitch, which was based on their concept statements and directed to potential investors. This was a short business pitch in which they were to describe their product and its potential, discuss the market need, and try to recruit investors; this task is based largely on the television program *Dragons' Den* in which entrepreneurs present their business idea to a panel of “dragons,” who are wealthy business people. The presenter attempts to secure both financial support and business advice from the dragons, who are also looking for investment opportunities. In both iterations, colleagues were invited to act as dragons, provide the students with feedback, and ask them questions about their business ideas.

Table 4.27 outlines the lexical characteristics of these oral presentations. They were not academic in nature and the percentage of AWL words was lower than in previous tasks. This is likely due to the nature of the assignment and audience of these presentations. Because of the time constraints of the assignment and the fact that students were sharing the task with their partners, the average number of tokens is lower than in the previously described assignments.

Again it can be seen that Andrew (1) produced only a very small sample of speech, preferring to rely on his partners to carry the presentation. Working with Samad (6) and Adnan (4), he only presented one minor, pre-scripted aspect of their business pitch. While the mean number of tokens is 276.7, Andrew produced just 40 intelligible tokens. Andrew also had the smallest ratio of K1 words, however his results may not be accurate due to the extremely small sample size of 40 tokens. The mean of K1 words is 85.23%, which falls in between the two previous assignments. The mean percentage of AWL words used is 3.78%, which is lower than the two previous assignments, likely due to the nature of oral task three.

Table 4.27

Lexical Characteristics of Oral Assignment Three

Learner	Tokens	K1	
		Compleat	AWL
1	40	70	5
2	316	85.3	4.47
3	316	92.09	2.85
4	373	88.74	4.29
5	452	92.04	2.21
6	160	86.25	2.5
7	222	86.04	5.86
8	352	85.51	3.98
9	157	83.44	3.18
10	379	82.85	3.43
avg	276.7	85.23	3.78

Note. Tokens = number of words, K1 Compleat = % of words from the K1 band of the COCA-BNC corpora, AWL = % of Academic Word List Words.

The following excerpt from Mark (7) and Sarabjit's (2) business pitch is a representation of exemplary work. Sarabjit was Canadian-born and her speech was very fluid and natural, while Mark had been in Canada for five years. Although his speech is accented and contains surface level errors, it is comprehensible and reflects a sizeable lexicon.

MARK; Ok.

For resources, uh, the majority are overseas, but agreements would sign, which means that resources are secure.

And, uh, all these, all these products are made domestically in Calgary.

Um, for the product, we will be, we will sell it online and through retailers such as Wal-Mart and Canadian Tire.

And confidentiality agreement will be signed as well.

SARABJIT; Um, some risks are current and future competitors.

So, we need to know what our competition is and how we are going to deal with that and any, any other companies wanting to compete with our idea and, uh, there's, uh, we have to keep up with the technology.

Innovating and improving as time goes on.

And we need to secure suppliers, distributors, and users and shareholders and scale the company both nationally and internationally.

Both of these participants used language appropriate to the task and included relevant business vocabulary words such as *resources*, *domestically*, *retailers*, *competitors*, *innovating*, *suppliers*, *distributors*, *shareholders*, and *scale*. They both introduce their topics, which are resources and risks, respectively. Furthermore, their presentation included many important details about the investment and profit opportunities. This was the business pitch was best received by the dragons, and it was organized, professional, and engaging.

4.4. Sub-Question 4

This section addresses the GPAs of the students from both iterations of iEAP, and academic transcript data are presented to answer sub-question 4: *What characterizes the academic performance of iEAP participants with regard to GPA?*

Because the students' academic trajectories are characterized by a great deal of variation, it is difficult to holistically quantify their results or academic trajectories. Three of the students were part of the 2011 cohort and have just completed two years of study, while the other seven students have been out of high school for three full years. Some students left their studies rather

quickly (i.e. 1 & 5), another (2) transferred to MRU, a third (6) continued to upgrade in high school, took some Open Studies courses, and also took classes at the ULeth. Finally, the transcripts for student 10 are not available as he is attending UofA. Table 4.28 outlines the participants' GPAs over the duration of their time at UofC.

It is important to keep in mind that the nine GPAs available are additionally not on an even playing field. At the time of writing, only four of the students have completed three full years of study at UofC and even one of those (participant 6) was only taking a handful of UofC courses at a time while he also attended ULeth and upgraded his high school marks. Of the three remaining students, they are in distinct faculties: Business (3), Engineering (4) and Health Sciences (7) where the course loads and requirements are also variable.

Table 4.28

iEAP Participant GPAs at the University of Calgary

Learner	F'10	W'11	SS'11	F'11	W'12	SS'12	F'12	W'13	Avg
1	.250	1.7	1.35	1.7	n/a	n/a	n/a	n/a	1.25
2	1.7	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1.7
3	1.433	2.82	3.7 & 4.0	2.66	2.05	2.3	2.74	2.77	3.25
4	1.08	1.4	2.0	2.15	3.0	2.7	2.175	2.56	2.13
5	.675	1.86	n/a	n/a	n/a	n/a	n/a	n/a	1.26
6	2.0	.65	3.3	2.7	3.0	n/a	2.67	3.15	2.5
7	3.88	3.66	n/a	3.85	3.67	n/a	3.15	3.88	3.68
8	n/a	n/a	n/a	2.08	1.1	n/a	1.9	1.62	1.68
9	n/a	n/a	n/a	2.1	2.0	2.0	1.32	2.54	1.99
10	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Note. F= Fall semester; W= Winter semester; SS=Spring and Summer semester

Although there are just 10 participants, their experiences and results at university are visibly distinct, with GPAs ranging from 0.25 (participant 1, Fall 2010) to 3.88 (participant 7, Fall 2010, Winter 2013). With only David (8) as the exception, all the participants who have

continued their studies at UofC improved over time in university and apparently struggled in their first semester, where the mean GPA was 1.69 (SD 1.05). The mean GPA of the most recently completed semester (Winter 2013) of the students still at UofC is 2.83 (SD .77); the difference between the two GPAs is notable, but it must be with the caveat that the GPAs of only six of the participants are available for this semester, as participant 1 and 5 are no longer attending school, and participants 2 and 10 are at different institutions.

To reiterate, the only shared characteristic of the student GPAs is that they are extremely variable. Why some of the students have managed to excel in university (7 and 3, for example) while others have not been successful is of interest and will be further explored by sub-question 9, when a more in-depth analysis of these students is presented.

4.5. Sub-Question 5

In order to address sub-question 5, the same student transcripts described in sub-question four will be used to answer: *What characterizes the academic performance of iEAP participants with regard to the number of successfully completed courses?*

As described in Table 4.29, the iEAP students attempted and earned an extremely variable number of credits. This could be attributed to the fact that the participants were in university for differing lengths of time and also chose different academic paths. Some students opted to enroll in fewer classes, while others were forced to take heavy course loads as members of cohort programs. Some took spring and summer semester classes, while others spent those semesters working; some stayed at UofC for their tenure at university, while others enrolled in courses at other institutes. Finally, some had completed three years of study, while others had just finished their second year at the time of data collection.

All but one of the iEAP students failed at least one course during their time at university. As can be seen in Table 4.29, there is a discrepancy between attempted and earned credits for each participant, save Mark (7). Wherever there is a discrepancy, it represents a course that was failed; withdrawn courses do not fall into this category of attempted credits, but are shown in Table 4.30 and discussed later in this section. Similar to the wide range in the number of credits attempted, there is great variance in how many credits were earned. Looking at the participants all together, the mean number of attempted credits is 56.33 (SD 26.82), which represents 18.78 classes. It is 57.86 (SD 30.58), or 19.29 classes, for the 2010 cohort, but this again is not necessarily an accurate reflection because of variation in academic trajectories. The mean number of attempted credits for the two remaining students in the 2011 cohort is 51 (SD 8.41), or 17 courses. Similarly, the number of earned credits, representing successfully passed classes is variable. The mean number of earned credits for the two cohorts together is 49.67 (SD 28.93) (16.56 courses), 52.29 (SD 32.3) (17.43 courses) for the 2010 cohort, and 40.5 (SD 14.85) (13.5 courses) for the two learners from the 2011 iteration. It can be seen that in all cases there is a difference between the number of credits attempted and the number earned. The mean difference for the group is an ominous 6.66 credits, or just over two failed courses. It appears that the first year of study was most difficult. In both cohorts, the unsuccessfully completed classes were mainly in the first, and to a much smaller degree, the second year of study. For this reason only the mean difference in credits earned and attempted for both iEAP cohorts as a whole are presented.

Similarly, the exploration of this question does not lead to any definitive conclusions. With data from just nine students, all results must be interpreted cautiously and are not meant to

make any statements about the academic trajectories of other students of a similar demographic.

While there are many limits to the data available, they are still relevant to this research.

Table 4.29

Credits Attempted and Earned at UofC

Learner	Credits Attempted	Credits Earned
1	27	18
2	30	27
3	87	84
4	90	81
5	27	18
6	54	48
7	90	90
8	45	30
9	57	51
10	-	-

Note. Each course at UofC is worth 3 credits. This table describes just the credits that were attempted and earned. Withdraws are not included in these data.

The number of courses that students withdrew from is also variable and telling. While earlier in their academic careers, such as in the first semester, students were more likely to receive a failing grade in a course, but after that first semester, they were more likely to have a ‘W’ on their transcript, which represents a withdrawn class for which the student paid and enrolled but did not complete. Generally, students only choose to withdraw from courses that they know they will not pass, since they must still pay for the course. While Ws are still recorded on a transcript, a W is seen as preferable to attempted but unearned credit (i.e. a fail). Table 4.30 outlines the number of courses taken by each participant, the number of those taken courses that were not passed, as well as the number of courses the students withdrew from; withdrawn

courses are not considered attempted credits. The number of courses attempted and completed directly corresponds to the credits described in Table 4.29.

Table 4.30

Courses Taken, Failed, or Withdrawn from

Learner	Courses			
	Courses Attempted	Successfully Completed	Courses Failed	Withdraws
1	9	6	3	5
2	10	9	1	2
3	29	28	1	1
4	30	27	3	0
5	9	6	3	0
6	18	16	2	5
7	30	30	0	0
8	15	10	5	2
9	19	17	2	0
10	-	-	-	-

Note. A withdraw is a course that was attempted, but not completed. A withdraw is represented by a “w” on a transcript and indicates that the student paid for this course, but chose to withdraw before the end of the semester. Generally students only withdraw from courses they do not expect to pass.

As seen in Table 4.30, four of the nine students have withdrawn from courses at some point. Andrew (1), for example, withdrew from five courses and failed three in his four semesters at UofC. Samad (6) has withdrawn from five courses, all of which were in the first two years of study, before he was accepted into a program and transferred from Open Studies. David (8) failed a relatively high number of courses, with five fails, and has withdrawn from two classes. Five of the nine participants have never withdrawn from a course, and only one, Mark (7) has neither failed nor withdrawn from a course at UofC.

4.6. Sub-Question 6

This section again uses academic transcript data to answer sub-question 6: *What quantitative measures from high school and iEAP have bearing on academic performance such as GPA?*

When looking at student performance in each of these two areas, it is seen that the difference between the teacher-awarded and provincial exam grades was indeed substantial. Table 4.31 presents the ELA 30-1 marks for all the students. The official grade is provided in the first column and is determined by averaging the provincial diploma exam mark and the teacher-awarded mark, which are in the second and third columns respectively. The mean official grade is 61.89% ($n=9$; SD 4.31), the mean diploma exam mark is 51.78% ($n=9$; SD 6.62), and the mean teacher-awarded mark is 71.56 ($n=9$; SD 5.32). Because the results between the teacher-awarded and provincial exam results are so disparate, a paired 2-tailed t-test comparing the sets of results was run. The results indicate that $t(8)=6.70$, with the mean difference 9.67% and a SD of 4.33 and $p=.000$, indicating a difference that is highly significant. Cohen's d is very large, following Cohen's (1988) guidelines with $d=2.0$. Much like in the two previous sub-questions, the results must be carefully interpreted. The data set is quite limited with $n=9$; the great variation among those nine participants has been previously described.

The teacher-awarded mark was higher for every participant in this study, with the differences between the two grades ranging from 33% (participant 8) and 7% (participant 7), with a mean of 20%. Potential reasons for this rather large discrepancy are further described during the discussion of findings in the following chapter.

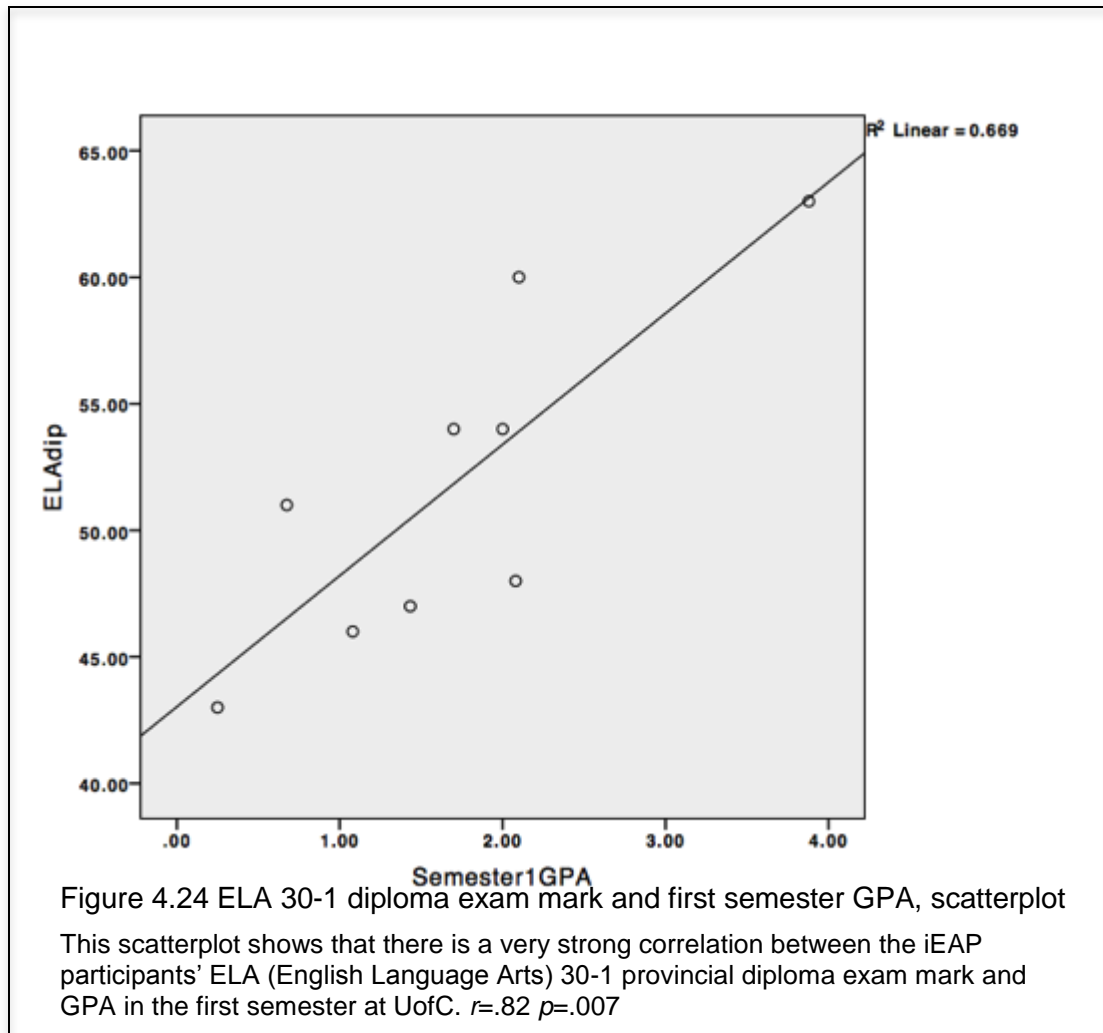
Table 4.31

ELA 30-1 Grades

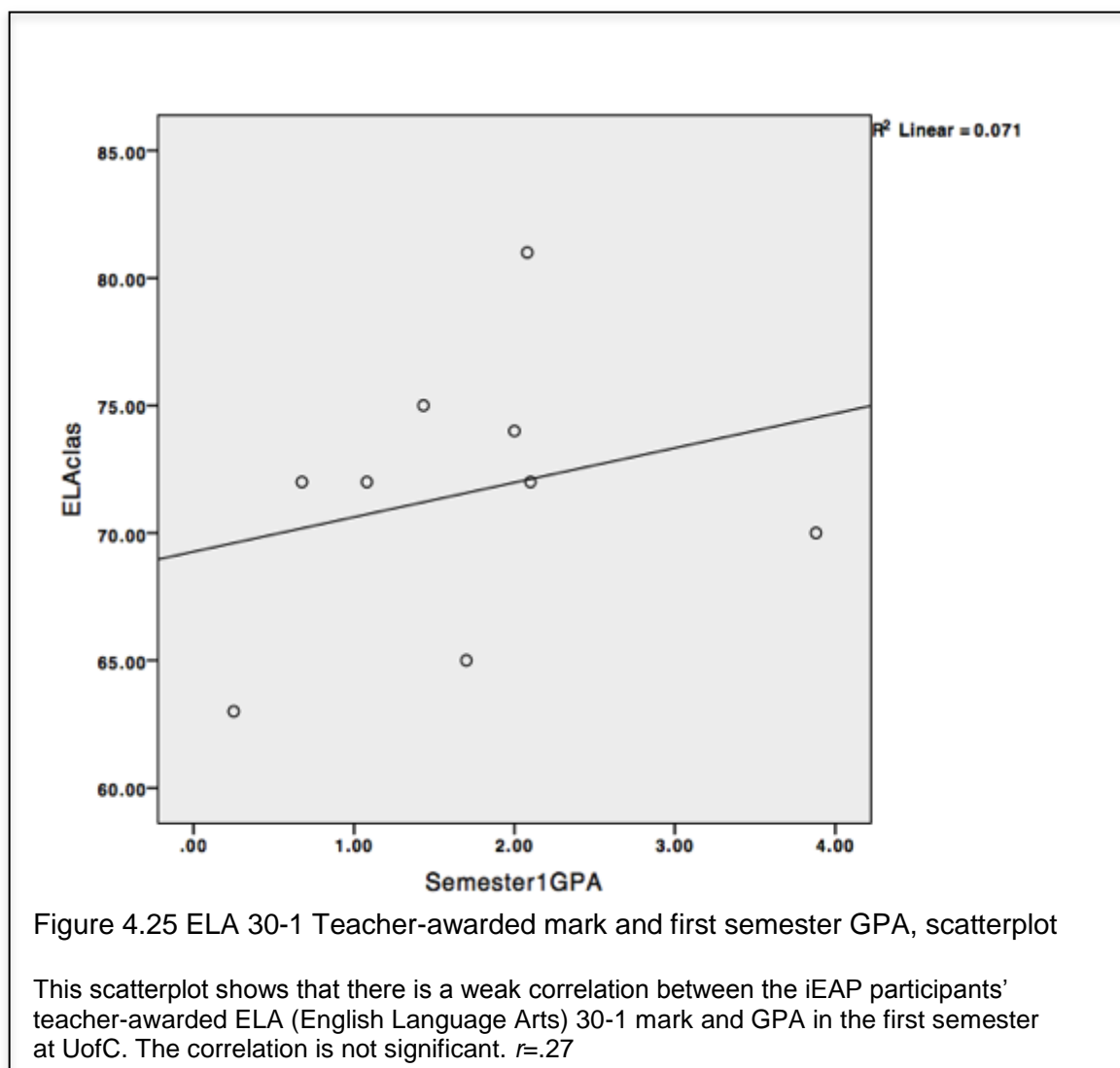
Learner	ELA 30-1 Official	ELA 30-1 Dip. Exam	ELA Teacher- Awarded
1	53	43	63
2	60	54	65
3	61	47	75
4	59	46	72
5	62	51	72
6	64	54	74
7	67	63	70
8	65	48	81
9	66	60	72
10	-	-	-
Average	61.89	51.78	71.56

Note. ELA 30-1 Official=English Art final grade which is an equally weighted combination of the diploma exam and teacher awarded mark; ELA 30-1 Dip. Exam= Final grade on provincial diploma exam; ELA Teacher-Awarded= Grade given by teacher based on class performance.

To investigate the connection between the students' ELA 30-1 marks and their subsequent performance at university, Pearson's correlation coefficient (r) was computed. Rather than looking at the average GPA for the students' entire time at university, which is exceedingly variable, first semester of study was used, since that was available for all nine participants. There is a strong positive correlation between the overall ELA 30-1 mark and GPA in the first semester at UofC, (Pearson's $r=.814$, $n=9$), which is statistically significant where $p=.008$ at the 2-tailed level. Furthermore, there is also a very strong positive correlation between the ELA 30-1 diploma exam mark and GPA in the first semester at UofC ($r=.818$, $n=9$), which is also significant at the 2-tailed level ($p=.007$). These correlations are presented in Figure 4.24.

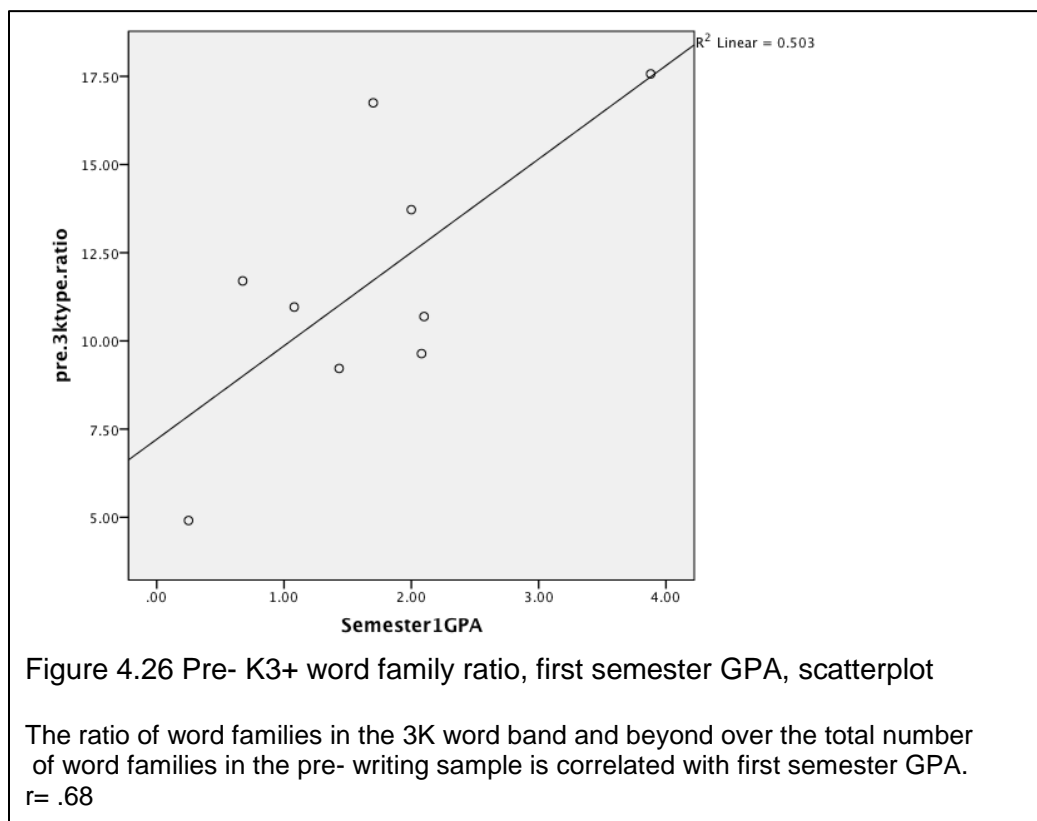


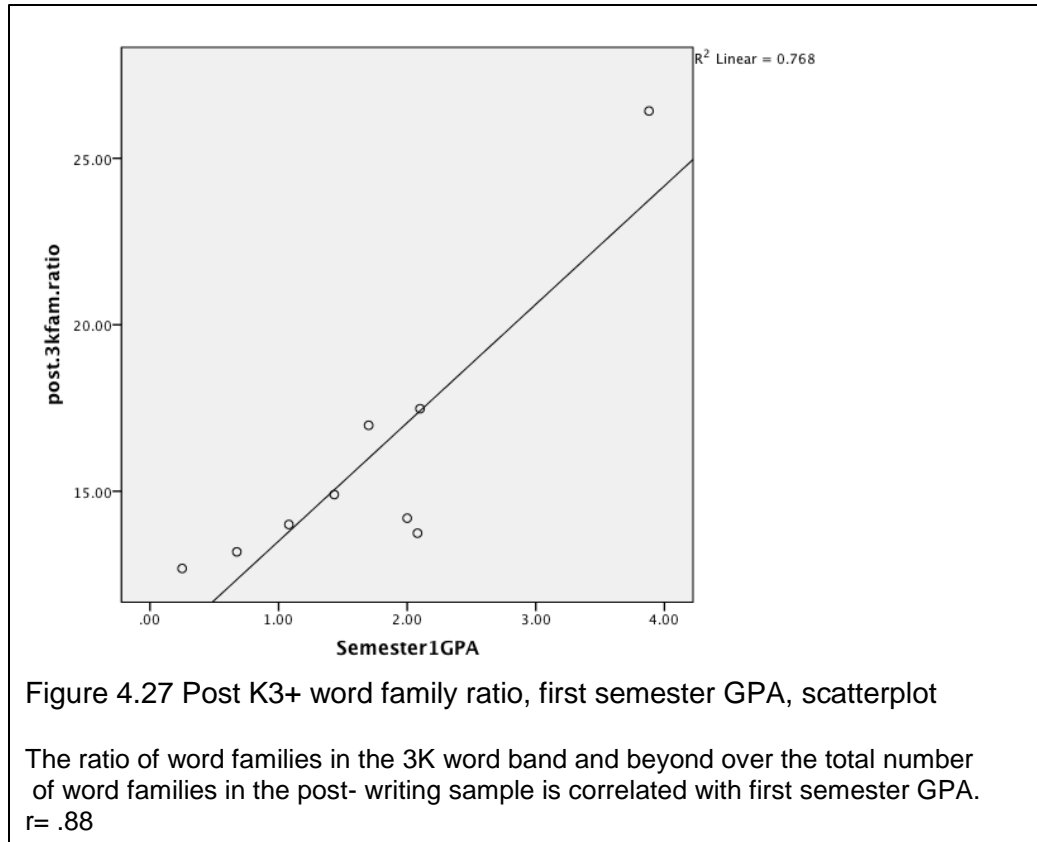
The ELA 30-1 teacher-awarded marks, however, only have a poor positive correlation with initial performance at UofC ($r=.267$, $n=9$) and the correlation is not at all significant ($p=.49$). To see if there was a similar effect with Math 30 grades and a first semester GPA, the correlation between these two variables was also computed and found to be quite weak ($r=.44$, $n=9$) and also not statistically significant ($p=.23$). Scatterplots illustrating the strong correlation between the ELA 30-1 diploma exam marks and first semester GPA (Figure 4.24) and the weak correlation between the ELA 30-1 teacher-awarded mark and the first semester GPA (Figure 4.25) are presented.



Although the sample size is extremely small, these results corroborate recent findings that grades in language classes are predicative of university performance, accounting for 25% of GPA, while math scores do not seem to be as influential (Lamoureux, Diaz, Malette, Mercier, Daoust & Bourdages, 2013). Such a strong positive correlation between ELA 30-1 final marks and diploma exam marks to initial student performance at university raises many interesting discussion points, which will be addressed later in this chapter.

In order to answer the second part of this question, the lexical characteristics of the iEAP participants' writing samples are presented. While the findings that fall under this umbrella have the potential for future research, just the K3+ word family ratios of the pre- and post- writing samples are described here. There is a strong positive correlation between the pre- writing sample K3+ word family ratio and first semester GPA (Pearson's $r=.68$, $n=9$) which is statistically significant at the 2-tailed level ($p=.045$). There is a very strong positive correlation (Pearson's $r=.876$, $n=9$), which is statistically significant at the two-tailed level, where $p=.002$ between the post-writing sample K3+ word family ratio and first semester GPAs. The scatter plots below (Figures 4.26 and 4.27) illustrate the pre-writing sample and GPA correlation, and the post-writing sample correlation respectively.





4.7. Qualitative Findings, Sub-questions 7 & 8

The data used to address sub-questions 7 and 8 are qualitative in nature and comprise principally of interview and survey responses, as well as observations and fieldnotes to a lesser extent. Notes and observations were made throughout both courses, at times during class and other times as post-class or post-meeting reflections. Interview data are also broad and consist of an intake survey and goals worksheet which were both completed on the first day of class, a post-program evaluation and survey, and follow-up semi-structured interviews which took place directly following each iteration of iEAP and at the end of the Winter 2013 semester (see Appendix K for the PPES, as well as the interview questions). Four students from the 2010 cohort also met up for a mini-reunion in November 2010 and notes from that meeting are also used. As not all the participants took part in all interviews or completed the survey, the data

available are not the same for each learner; Table 4.32 outlines what data were available for each participant.

Table 4.32

Interview Data Available for iEAP Participants

Learner	Goals Worksheet	Post-Program Survey	Post-course interview	Nov. 2010 Meeting Notes	Winter 2013 Interview
1	X	-	-	-	-
2	X	-	X	-	X
3	X	X	X	X	X
4	X	X	X	X	X
5	X	X	X	X	-
6	X	X	X	-	X
7	X	X	X	X	X
8	X	-	X	n/a	X
9	X	X	X	n/a	-
10	X	X	X	n/a	X

Note. X indicates that this data source is available. – indicates that this data source was not submitted or interview not attended.

As described earlier, qualitative research can be messy and care must be taken to ensure that findings and interpretations are indeed valid and reliable. As discussed previously, the general approach for dealing with qualitative data recommended by Stake (1995) are followed: this procedure moves from reviewing and aggregating the data, to interpreting it, establishing patterns, and making naturalistic generalizations in order to present a case. In order to do this, a more detailed protocol, as described by Kvale and Brinkmann (2009) was followed. First, all of the interview and fieldnote data as a whole were reviewed in order to glean key ideas. At this time some brief notes were made. Second, the data were revisited in greater detail and coded line-by-line based on the topics and themes that surfaced. Third, these codings were reviewed, and some were chosen to be excluded, reclassified, combined, or relabeled. Fourthly, the

remaining codes were categorized and connections were drawn between them. Fifthly and finally, findings most pertinent to sub-questions 7 and 8 were selected to present in this document.

4.8. Sub-Question 7

The documents that were of most value in exploring this question were the Post-Program Evaluation Survey (PPES), and the follow-up interviews which took place directly after both iterations of iEAP and again in Winter 2013 in order to answer sub-question 7: *What are the salient learner perceptions about their experiences in iEAP?*

Firstly, student responses to seven (out of 20) of the most pertinent survey questions on the PPES are presented. Of the ten iEAP participants, seven submitted responses to this survey and while all seven completed the Likert scale questions, not all of the open-ended questions were answered. Table 4.33 outlines the student responses to the seven statements most relevant to sub-question 7. In typical Likert scale fashion, the possible answers range from 1-6: 1 – very much disagree, 2 – disagree, 3 – slightly disagree, 4 – slightly agree, 5 – agree, 6 – very much agree. There was not a ‘neutral’ or ‘n/a’ response option. While the PPES in its entirety can be found in Appendix K, the statements addressed in this section are as follows:

1. The course was too easy for me.
2. I found the videos/lectures/listenings too difficult.
3. I found the readings too difficult.
4. The instructor was useful in helping me understand the quality of my work.
5. I identified my weaknesses through this course.
6. I improved my skills through this course.
7. Overall, I benefitted from this course.

Table 4.33

Responses to Post-program Survey Questions

Participant	Q1	Q2	Q3	Q4	Q5	Q6	Q7
1							
2							
3	1	5	4	6	6	6	6
4	2	4	3	6	5	5	5
5	2	4	4	5	5	5	6
6	4	1	5	6	6	6	6
7	3	3	4	5	6	5	6
8							
9	2	3	3	6	6	6	6
10	2	4	2	5	5	6	6

Note. Participants without scores did not submit a Post-Program Evaluation Survey

Overall, the main theme that runs through the PPES and the Follow-Up Interview was that the students found iEAP to be helpful and enjoyable. They reported both liking and learning from the course and overwhelmingly said they would recommend it to other students.

The first three questions pertained to the difficulty of the course and the materials. All of the respondents save for Samad (6) reported that the course was not too easy, and even he only slightly agreed with the statement that “the course was too easy;” the other responses ranged from “very much disagree” to “slightly disagree,” while the majority of the respondents (4 out of 7) answered “disagree.” The mean score is 2.29, indicating that the materials were challenging for the students.

In hopes of getting a better idea of what types of materials were challenging, questions 2 and 3 asked about the difficulty level of the listening activities and the readings, respectively. The respondents indicated that the readings were slightly more difficult than the listenings; the

mean response about the difficulty of the listening activities is 3.42 and the reading is 3.57, respectively.

The next two questions asked the participants about how well the course helped them to understand the quality of their work and to recognize their weaknesses. The students overwhelmingly reported that the course had been successful in helping them with this. All of the students responded either with a 5 (agree) or a 6 (very much agree) to these two questions. The mean responses are 5.57 for both of these questions.

The final two questions included here refer to the participants' perceptions about skill improvement and overall improvement in iEAP. Once again, the respondents indicated that they indeed felt that they had improved their skills in iEAP, and all responses are 5s (agree) and 6s (very much agree), with the mean response being 5.57 for question 6. Of the seven responses for question 7, six of them very much agreed that they had benefitted from iEAP, while one respondent indicated she agreed; the mean was 5.86 for the final question.

Although such survey questions provide accessible information and general impressions, they can be rather superficial, as they only give respondents a limited choice of possible answers, with little or no option to elaborate on their responses; open-ended short answer questions allow for some more detailed information to surface. For this reason, the PPES also contained 15 additional open-ended questions pertaining to student perceptions of iEAP.

While the six of the seven of the participants reported having taken iEAP in order to improve their English in general, those who elaborated were most interested in improving their writing skills before university. Other respondents reported wanting to also improve reading, oral communications, and grammar, and one participant claimed she only took iEAP because she "had nothing better to do" but found it helpful nonetheless. These responses largely reiterated

what they had reported on their intake documents and iEAP goals worksheet. Although the reasons for taking the course were not especially surprising, there was greater variation in perceptions about experiences in iEAP. Using the PPES and the Follow-Up Interview in Winter 2013, the most striking findings related to iEAP participants' perceived experiences in the course are discussed.

Despite the fact that the iEAP students were told they could fill out the evaluation anonymously, none of the respondents chose to do this. As none of the respondents were very critical of the class and it is not clear whether this is an accurate reflection of their experiences or if they were saying what they thought their instructors wanted to hear. The evaluation was also done after grades had been assigned, so that they would not feel as though their grades could be somehow contingent on their responses.

While the participants did report enjoying most of the activities, one interesting theme that appeared repeatedly was that the respondents tended to equate how easy an assignment or activity was with how enjoyable it was. The types of activities they reported as most enjoyable were those that drew upon their relative strengths in oral communication, such as the Dragon's Den final project in Oral Communication. On the flipside, five of seven respondents claimed that note-taking activities which were followed by a quiz were their least favourite activities, citing the difficult nature of these activities and the poor grades they often received on them. Only one student (Mark, 7) reported enjoying these activities, although his reason for enjoying them was the same as for those reported not liking them: he enjoyed the difficulty and the amount of concentration required by the task.

Again, the theme of grades surfaced a few times in the PPES. Many students seemed to be preoccupied by their grades not only in iEAP, but in high school as well. In notes from

instructors of both iterations, there is mention of students being quite upset when diploma exam marks were released; in both courses, the day following the release of grades at the end of July was difficult and the students seemed distracted and worried about their admission status to university. This focus on external recognition of performance permeated iEAP, and the topic was brought up repeatedly in the PPES. Some learners saw grades as motivating; Adnan (4), for example, wrote in his survey that, “The goal to pass the course made things interesting,” implying that the desire to pass encouraged him to engage with the class and work harder. On the other hand, Samad (6), when asked what parts of the course he would eliminate, responded with “Maybe book club. But no, because it helped me to raise my mark” implying that the final grade was more important than the learning attached to it. Additionally, Rudrani (5) and Samad explicitly wanted to take the course to improve their marks in university, while Heenim (9) suggested running this course during grade 11, so that future students would get better grades in high school and, presumably, easier entrance to university.

When asked what they would change in the course, the answers were quite varied and at times contradictory. Two said they would prefer longer class time to get through the materials, while one (Rudrani, 5) reported that she would have liked shorter classes with less reading and no Oral Communication classes, despite the fact that in other questions she reportedly most enjoyed Oral Communication activities. Other aspects of the course that could be changed, according to the participants, were increasing the number of field trips and giving students a choice about the Book Club selection. Four of the seven respondents reported they would not change anything about the course.

When asked about favourite activities in iEAP, many of the respondents reported that activities that were game-like and fostered interaction with their peers were particularly

memorable. The Dragons' Den project was most frequently listed as a favourite, and six of the seven respondents reported they most enjoyed Oral Communication or interactive activities. Indeed, building a sense of community and making the class “fun” was an important part of keeping students motivated, especially given that they were taking part in voluntary summer school.

All of the students who completed the PPES reported that they would recommend iEAP to their friends and four of the seven used the word “helpful” in their responses. Other themes that were found were that the course improved their English and prepared them for university, by giving them a head start.

Overall, the qualitative findings were not particularly surprising. Student responses in interviews and on questionnaires seemed to corroborate the findings from fieldnotes, observations, and student perceptions about their participation in iEAP. While I predicted that the students may have perceived attending a full-time class during the summer preceding their first year at university as burdensome, this never came up in the data. The data do suggest that the participants found the program useful, rewarding, and interesting. There was, however, a recurring theme that high school core subject and EAL classes in particular, were burdensome and not particularly helpful. This was a bit surprising for me and will be addressed in the following section, which is closely related to this one and addresses the student perceptions of the effects iEAP had on their university experiences.

4.9. Sub-Question 8

Like the previous sub-question, this section also uses examples gleaned from data collected in interviews, surveys and fieldnotes to address sub-question 8: *What are the salient learner perceptions about the impact of iEAP on their academic trajectory?* It will also discuss some

significant learner perceptions about their high school experiences, because this was a theme that repeatedly emerged, and the student responses are relevant.

Much like in the PPES, the semi-structured follow-up interviews that were administered contained questions requiring discreet Likert-scale responses. All of these questions were related to perceptions about how difficult different aspects of university life are. While they do not directly answer sub-question 8, they do provide information that can better contextualize this question.

Students were asked to rate how difficult various aspects of university life are on a scale of 1-6, where 1-extremely easy, 2- easy, 3 – not easy, but not too difficult, 4 – slightly difficult, 5 – difficult, 6 – extremely difficult. The prompts can be found below and responses in Table 4.34.

1. Keeping up with reading
2. Understanding reading
3. Understanding lectures
4. Time management
5. Keeping up with course loads
6. Completing assignments
7. Taking exams
8. Understanding requirements
9. Giving presentations
10. Group work
11. Independent study

Table 4.34

Follow-up Survey Responses, Winter 2013

Learner	Q.1	Q.2	Q.3	Q.4	Q.5	Q.6	Q.7	Q.8	Q.9	Q.10	Q.11
1											
2	3	2	2	4	3	3	3	3	2	2	3
3	1	1	1	3	2	1	3	1	1	1	3
4	5	5	3	3	4	2	2	3	6	4	2
5											
6	1	4	1	1	1	3	2	1	2	1	1
7	6	4	4	5	5	4	4	2	3	4	4
8	2	2	2	3	2	1	3	2		1	1
9											
10	2	2	1	3	3	2	2	5	4.5	2	4.5
average	3.14	2.86	2	3.14	2.86	2.29	3	2.43	3.08	2.14	2.64

Note. Q=question. All question numbers correspond to those outlined above.

The responses are quite varied, and it is apparent that the participants have very different perspectives about their university experiences and how challenging university is. For the most part, interviewees do not report finding university especially challenging or difficult, however, their responses to the open-ended questions and their actual transcript data appear to contradict this.

Participants report that the most challenging aspects of university study are keeping up with the reading (3.14), time management (3.14), and giving presentations (3.08); however, on the whole, they still do not indicate that that these aspects are exceptionally challenging. Their mean responses are rather neutral and most closely align with the “not easy, but also not difficult” descriptor. They also reported that understanding the lectures is the easiest aspect of

university study, with a mean response of 2.0, which is defined as “easy” on the scale. They also found group work to be relatively straightforward, with 2.14 the mean response for question 10.

Although the mean responses provide a general overview of the participants’ university experiences, they also mask the diversity in responses, which can be seen in Table 4.34.

Similarly, the discreet nature of the response options also limits the interpretation of their responses, which must be considered along with other qualitative data as well as their actual academic records. Interestingly, Mark (7) is the only respondent who consistently rated university study as being demanding, and he is also the most academically successful in university.

As discussed in the previous section, many of the iEAP participants seemed preoccupied with their grades, sometimes placing more value on grades than on the knowledge gained. While this fixation with grades did surface again in the Follow-Up Interviews of Winter 2013, there also seemed to be a shift towards a perception that grades are not always reflective of performance or learning. In 2013, a number of students reported that their most difficult courses had also been the most useful or enjoyable; for example Deeta (3) reported that one of her favourite courses was accounting. She explained that she loves accounting and only got a B-, “even though [she] learned a lot”. Nguyen (10), too, reported that he most enjoyed Dynamics because it was “so so so hard”, but did not quite get the grade he wanted. There were, however, still students that were preoccupied with grades; David (8), for example, mentioned that his most challenging course had been Programming and that he had failed it the first time he took it, but got an A- the second time around, equating his final mark with its level of difficulty. On the whole, there seemed to be a reduced preoccupation with grades as they continued their studies,

and Sarabjit (2) even remarked, “I’ve had As, but I’ve also failed classes. It doesn’t matter. It just depends on if you like the class and learn something.”

Another difference in responses between the survey directly following iEAP and their interviews in 2013 was what they remembered as being most useful in iEAP. Interestingly, the majority of the interviewees in Winter 2013 reported that they most appreciated learning how to reference, cite, and avoid academic misconduct; not one respondent mentioned this in the PPES, while four of the seven interviewees reported that this had helped them in university. Deeta (3) even mentioned that her peers had no idea about referencing or citation and had found themselves in trouble at university where they were expected to know when to cite outside sources and when how to properly reference them. Because she had experience, she happily “took charge of references in a group project.”

Similarly, former iEAP students also reported that the course had given them more confidence about their writing abilities. David (8), Deeta (3), and Samad (6) all reported that they had taken leadership roles in editing and writing on group projects because they were more confident in their abilities while their peers were not as comfortable writing. These reports indicate not only that these students gained confidence in their own writing abilities, but also that many of their university peers are not comfortable with their own writing skills. Nguyen (10) did, however, say that his required writing course has not been enjoyable and he often tries to get monolingual English speakers to help him by reviewing his writing before submitting assignments.

When asked what they would include in future iEAP iterations or what they wish they had learned in iEAP, there was no consensus among them. One suggestion that did appear twice was that the course would be more beneficial if it were targeted to just one specific discipline,

such as Health Sciences or Engineering; Adnan claimed that although he enjoyed all aspects of the course, he would have appreciated more a course that was entirely dedicated to preparation for Engineering. Adnan also reported wanting more presentation practice, as he continued to struggle with presenting in university. As seen in sub-question 3, Adnan did indeed improve his presentation skills throughout the duration of the course, but it was still an area that was developing.

Some other suggested changes mentioned in the follow-up interviews were to include more writing, more speaking, and more fieldtrips. Samad also said iEAP should, “include lab reports and not just essays”; in reality only one essay was included in the course, along with a lab report. This is just one example of how student perceptions, while informative and interesting, must be interpreted and presented with caution. Retrospective recollection is often not factually accurate.

While participant experiences and perceptions about high school were not originally part of this question, they warrant inclusion in this document, as this theme emerged in all the follow-up interviews, as well as during the class and in the fieldnotes. On the whole, iEAP participants reported that their high school experiences were not very helpful. Throughout the duration of the course, I noted this in the journal no fewer than seven times. Learners often reiterated that they resented their high school experiences, and especially those of their EAL classes. Deeta (3) in particular felt as though she was forced to remain in EAL for too long and it prevented her from taking more useful courses. Samad (6) said that the quality of instruction was low, the classes contained too many students of mixed abilities, and hindered his own progress. During the follow-up interview, I asked the students about the ways their high school experiences had prepared them for university. Almost each interviewee hesitated before answering, and four of

the seven concluded that high school had only provided them with a knowledge base in math and science. Overwhelmingly they responded that high school was poor preparation for university because there was very little pressure and few demands. Mark (7) stated “I was home at 3:00pm every day. It wasn’t anything like my schedule at university.” Although interviewees’ initial responses were quite negative, some students did eventually concede that high school had, in some ways, been useful. David (8) said he learned a lot of math and science in the IB program, Nguyen (10) said high school gave him great extra-curricular experience that looked good on his resume, and Deeta (3) said she had some great teachers that strongly encouraged her to work hard and succeed. Sarabjit (2), on the other hand, claimed that her high school had been great and so were the teachers, but “on a personal level, [she] lacked drive”.

Once again, the interviewees overwhelmingly reported having benefitted from and enjoying iEAP. While their academic trajectories have been quite distinct, all of the participants who took part in the interview reported finding this course helpful for their university studies through developing not only university-related skills, but also the confidence to use them.

4.10. Sub-Question 9

In previous sections, the sub-questions have addressed the two iterations of iEAP and all the participants as a whole, while this section will more deeply explore the characteristics, experiences, and trajectories of two iEAP participants. This section will seek to address the sub-question 9, *What characterizes two iEAP participants who have been particularly successful in their academic careers based on their work in iEAP, their learning styles, motivations, and subsequent academic performance?*

There are a variety of reasons for selecting the two most academically successful iEAP participants for this sub-question. Firstly, there are practical reasons: the two learners profiled in

this section have been prolific participants. Both of them completed every survey, assignment, and interview and have also been responsive to me. They readily agreed to take part in providing a follow-up writing sample, taking the GMRT and participating in interviews in 2013. Simply, there is more data available for these two students than for others. Secondly, by studying particularly successful learners, we can become more aware of what helped them to excel, which may assist in promoting excellence in other students. Finally, by focusing on successful students, we can move away from a “deficit viewpoint,” by recognizing success we can hopefully move towards a more inclusive and positive notion about the abilities of ELLs. While there are these obvious benefits to profiling Deeta (3) and Mark (7), it warrants mentioning that while their stories will be told, there are still the other eight participants who will not be explored in such depth, despite having been included in sub-questions 1-8. Still, where relevant, some of the other participants will be discussed in this section, in order to contextualize or compare. This section will be subdivided into two sections: the first section will present a profile of Deeta and the second will paint a picture of Mark.

4.10.1. Deeta.

Along with the rest of the iEAP participants, Deeta was briefly described in Chapter Three. She took part in the 2010 iteration of iEAP and was a graduate from James Fowler High School in Calgary. Deeta had been in Canada for just under three years at the time of her entrance into iEAP. At the time of our last follow-up interview in August 2013, she had been in Canada just over six years. Deeta’s L1 is Gujarati, but she also learned Hindi in school. Her English language experience and exposure was limited upon her arrival to Canada, but she has since become proficient in English and has also studied Sanskrit since our first meeting in 2010. Deeta was placed in ESL-3 (English as a Second Language, Benchmark 3) upon her arrival in Grade

10, completed level 4 in Grade 11 then went on to complete mainstream ELA-10-1, 20-1, and 30-1 before graduating from high school. Her high school grades can be found in Table 4.35.

Table 4.35

High School Transcript Grades (Deeta)

Course	Grade
ELA 30-1	61
ELA dip	47
ELA class	75
Math 30	76
Math 31	91
Phys 30	58
Chem 30	75

Note. ELA 30-1=total mark, ELA dip= grade on provincial exam, ELA class= teacher awarded grade, Math 30- grade 12 math required for university entrances, Math 31 – advanced math, Phys 30- Grade 12 Physics, Chem 30 – Grade 12 Chemistry.

As can be seen from Table 4.35, Deeta did well, but not exceptionally, in her core subjects. She tended to do better in her options, earning 95% in Advanced Communication Tech., 92% in Advanced Info. Processing, and 91% in Introductory Enterprise and Innovation. Deeta applied, and was admitted, to the Haskayne School of Business at UofC. Despite having received satisfactory grades in high school, Deeta still exhibited developing English language skills when she joined iEAP in 2010 and had failed her ELA 30-1 diploma exam.

Table 4.36 illustrates her pre- and post-test scores, as well as scores for the GMRT and writing sample completed in August 2013. As the scores on these tests have been discussed for sub-question 1, these results will not be explored in great detail here. It is, however, important to note that her scores were low, even when compared with other iEAP students. Her combined Vocabulary and Comprehension GMRT scores are in ESS form, in which progression is linear. At the time, Deeta's scores were the lowest in the class, and her GE was 4.6 on Vocab and a 7.4

on Comprehension. She did improve, with GE of 7.9 and 7.4 in vocabulary and comprehension, respectively. In August 2013, she attained a GE 10.0 overall, with a GE 9.0 and GE 12.5 on the Vocabulary and Comprehension components of the test, respectively. While she did not improve in terms of comprehension over the six weeks of iEAP, she did improve GE5.1 during her time at university. That she is not only surviving, but also thriving, at university with a relatively low vocabulary level is noteworthy.

Table 4.36

Pre- and Post-Testing in iEAP (Deeta)

Test	Score
Pre-GMRT	ESS 524 (GE 5.8)
Post-GMRT	ESS 560 (GE 7.6)
13-GMRT	ESS 615 (GE 10.0)
Pre-PAWT	53%
Post-PAWT	64%
Pre-Overall	U/U
Post-Overall	U/MU
13-Overall	MS

Note. GMRT – total score based on vocabulary and comprehension results on the Gates MacGinitie Reading Test, ESS – Extended Scale Score, GE – Grade Equivalency; PAWT- Productive Academic Word Test, Overall scores evaluated according to the EWT assessors. Results are provided for Pre tests in July 2010, Post-Tests in Aug 2010, and Follow-Ups in Aug 2013.

Deeta improved across her pre- and post-testing measures, however, she had the lowest GMRT Vocab pre-score while then had the largest improvement of all the students. The low level she started with, and the fact that lower level gains are easier, likely contributed to this large improvement. In terms of her writing sample, there are many instances of improvement; however, she still did not meet the level required to pass the EWT. The following are a few examples of how her writing improved during the course. In the writing samples completed at the beginning and end of iEAP, there are a number of specific examples of improvement that can

be seen in a comparison of her pre- and post-writing samples. The complete writing samples can be found in Appendix L.

- Pre: Not only pollution, but if you use cars, there are good chances of getting into accidents as well. [pre-, para 4]
- Therefore, not only Alberta, but also the whole world should really concentrate on this issue. [post-, para. 2]

These two examples demonstrate a greater accuracy and fewer errors in the post-sample. It can be seen that in the first instance Deeta is not able to successfully employ parallelism with the phrase “not only... but also”; in this case she compares pollution to accidents, but does not complete her idea in a grammatically sound way. In the second case, she has successfully employed parallelism and used this phrase correctly.

- This pollution can be dangerous to those who have some serious allergies, like asthma. [pre-, para. 2]
- A specific group of people with breathing diseases, like asthma... [post-, para. 2]
- ...fulfill your car with costly petrol [pre-, para. 5]
- ...fill fuel or oil and... [post- conclusion]

These four excerpts are examples of improved use of vocabulary. Deeta talked about asthma in both her pre- and post-writing samples; however, in the first essay she incorrectly classified asthma as an allergy, whereas in the second paper she correctly labeled it as a breathing disease.

This is interesting because we did not explicitly study asthma or other respiratory conditions in class, yet during the six weeks of the course, she learned how to classify this condition.

Similarly, Deeta talked about fuel in both of her papers. In the first one she used the wrong word, saying “fulfill your car” rather than “fill”, while in the second paper she chose the correct word and wrote “fill fuel or oil”. Again, this was not a word we specifically studied in iEAP, but indicates a general improvement in her vocabulary.

Not only did Deeta use words more accurately in her second paper, but she also used more unique words with fewer total words. The following figures demonstrate how she used a greater variety of words in her second essay than in her first (634 tokens), despite writing a shorter second essay (581 tokens). Although the lexical characteristics outlined in sub-question 1 describes such findings, the images below (Figures 4.28, 4.29) provide a clear visual. These images were created by entering the two texts into a website (www.wordle.net) which creates this image based on the content words used in the text. The larger the word in the image, the more often it was repeated in the text. There are a greater number of unique words in the second writing sample, even though the writing sample itself was shorter indicating Deeta did indeed use a wider range.

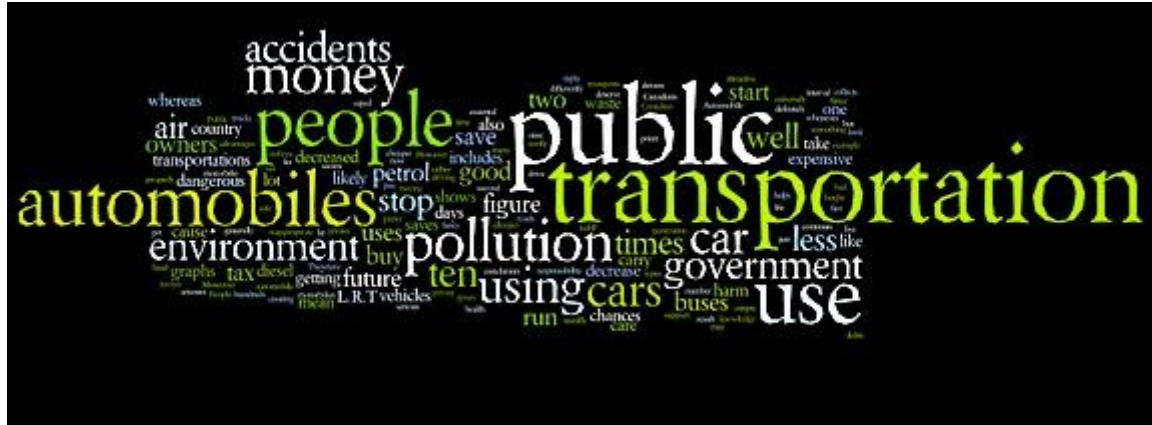


Figure 4.28 Pre- writing sample, wordle, Deeta



Figure 4.29 Post- writing sample, wordle, Deeta

Although Deeta was not the most improved student overall, the improvements she made on the tests were noteworthy. While Deeta improved on all pre- and post-test measures, she still struggled with her writing skills. Even her post-test was not deemed by either assessor to pass the EWT.

In September 2013 Deeta agreed to provide another spontaneous writing sample. The prompt she was given was quite similar to the original pre- and post-test tasks. According to the EWT rubric, this paper was assessed to be quite improved from her first two before and after iEAP. Although her writing still contains surface errors, she is able to more effectively relay her ideas, and she earned a score of Marginally Satisfactory on her follow up writing sample.

As previously outlined, during the first iteration of iEAP, we collaborated with the MEd program in Applied Psychology in the Faculty of Education to give their graduate students an opportunity to work with learners and do some testing. Each iEAP student was administered two language tests, the Expressive Vocabulary Test 2nd Ed (EVT-2: Williams, 2007), and the Peabody Picture Vocabulary Test, 4th Ed. (PPVT-4: Dunn & Dunn, 2007). The iEAP students in general did not perform very well given that these tests are normed to monolinguals, and Deeta was no exception: she scored within the first percentile on the PPVT-4, meaning that 99% of her peers of the same age would score higher than she. Similarly, she scored in the second percentile on the EVT-2, again indicating that 98% of her peers would do better. Many of the other iEAP participants also scored in the first percentiles on at least one test, as well.

Table 4.37 outlines Deeta's academic trajectory in terms of her GPA across semesters at UofC. Her GPA indicates that she struggled with the transition to university, and interviews also confirmed this. In a difficult first semester in which she enrolled in four courses: she failed one, withdrew from another, and received a C and C+ in the other two. In the second semester, Deeta's grades began improving and then remained higher. She also went back and completed those failed and withdrawn courses over the next year. Deeta failed Intro to Business (BSEN 291) in her first semester, but earned an A- on her second attempt. She also re-attempted Intro to Stats (STAT 213) and passed with a C, and then completed and passed its sequel, STAT 217.

Her highest marks, as well as the courses she reported most enjoying and relating to, were options rather than requirements of her major. As options she has taken a few Sanskrit classes, drama, and religious studies and earned As in them all. Although her marks are not as high in her major, she is still doing well and earning Bs and Cs. Based on our conversation in winter 2013, Deeta is still very happy with her choice of major, despite its difficulty. I asked her if she would rather leave Business and go into Humanities, but she was clear about wanting to remain in Business because she “really likes accounting and it will help [her] reach [her] goals.” She said that her optional classes can provide her with the chance to learn about things she is interested in and would not otherwise have the opportunity to learn about, but they will not help her reach her long-term goals. Deeta is extremely goal-oriented. Her GPA upon completing her third year of study is 3.25, high enough to allow her to attain an accounting designation beyond a Bachelor of Commerce, which she is set to complete in 2014.

Table 4.37

GPA across Semesters at UofC (Deeta)

Semester	GPA
F10	1.43
W11	2.82
Sp11	3.7
Su11	4.0
F11	2.66
W12	2.05
Sp12	2.3
F12	2.74
W13	3.25

Note. F-Fall semester, W-Winter semester, Sp-Spring semester, Su- Summer semester

Although it is clear from Deeta's GPA and academic trajectory on paper that she has found a way to thrive in university, there are many factors that have contributed to her success. As I have been reviewing Deeta's work along with my own field notes and observations, I did not predict her academic success in the way that I did for Mark. In fact, I often grouped Deeta with her classmate, close friend, and cousin Rudrani (5). Rudrani seemed a bit more interesting to me: she had gone to an English school in India and had never "had" to attend EAL classes in Canada, despite the fact that to me it seemed as though she would have greatly benefited from language support. Deeta, on the other hand, was upset that she had to take EAL courses and then was not exited from them as quickly as she would have hoped. Despite the fact that she had EAL support in school, Deeta exited high school with a relatively low level of English language proficiency, according to her diploma exam and the pre- and post-testing in iEAP. Rudrani's test results were higher and on paper, and it seemed that Deeta was at a greater risk of struggling in university. How can Deeta's success at university be explained?

To answer this question, a qualitative approach is warranted, as the quantitative measures described above and in previous sub-questions do not address the story behind Deeta's experiences or performance. On the first day of iEAP, all students filled out a Goals worksheet, in which they outlined both their long-term life goals and their short-term iEAP goals. Deeta set thoughtful and realistic goals. In the short-term she wanted to get a good mark in the class, learn hundreds of words, and improve her English, especially oral skills. When asked about how she intended to meet her goals, she mentioned both hard work and practical skills and strategies such as reading aloud and asking questions. Upon completion of iEAP, in our follow-up interview on the final day of class, Deeta reported having successfully met all of the goals she had set out for herself at the beginning of the course.

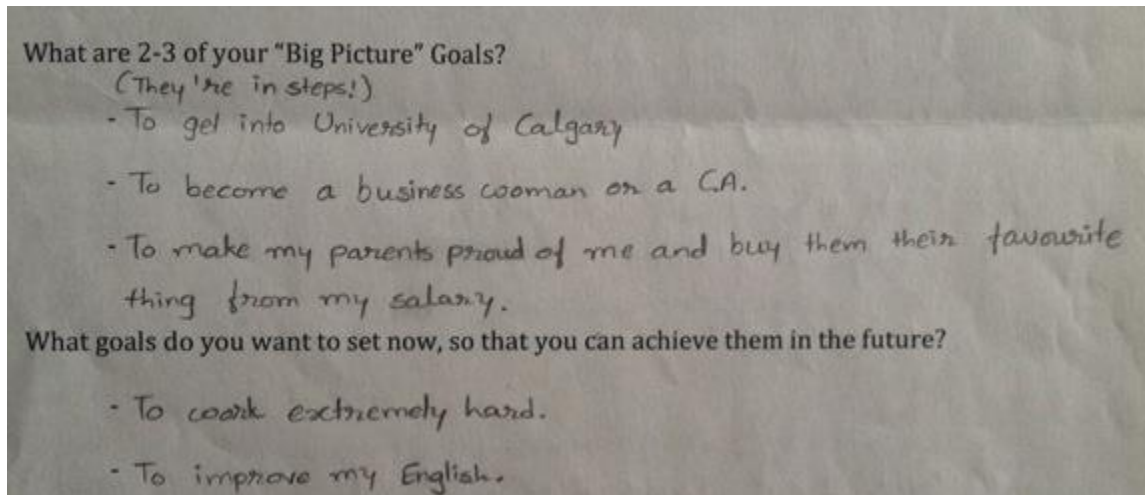


Figure 4.30 Deeta's goals

Similarly, Deeta's long-term goals were realistic and divided into steps, as seen in Figure 4.30: "1. Get into UofC, 2. Become a business woman or Chartered Accountant, 3. To make my parents proud of me and buy them their favourite things from my salary." In order to achieve those goals she reported that she wanted to "to work extremely hard" and "improve [her] English". Figure 4.36 is an excerpt from her goals worksheet.

When I again interviewed Deeta at the end of the Winter 2013 semester, I asked her about her long-term goals. This time she was reluctant to respond, saying that she was afraid that by speaking them aloud she would not reach them. She did, however, assure me that she had recently written a list of goals, which she kept in her room at home. Respecting her wishes, I did not press for more information. Toward the end of our interview, I showed Deeta her original goals worksheet and she exclaimed, somewhat surprised, "They are the same! My goals now are the same as before." In the three years that had elapsed, her goals had not changed. Indeed Deeta set for herself meaningful and attainable goals, while also setting for herself a goal of hard work.

It is interesting that she sees working hard as a goal, rather than a method to attain her goals. It is telling that she strives not only to succeed, but also to work hard.

While poor performance in some classes might discourage others, Deeta has managed to use those difficult experiences from her first semester to help her in subsequent classes. Such a trait has been called ‘grit’, which is defined as “perseverance and passion for long-term goals” (Duckworth, et al, 2007, p.1087). It entails extremely hard work despite setbacks or plateaus. While most might give up or switch plans in the face of adversity, a “gritty” individual will keep pressing toward his or her ultimate goal. Similarly, early research (Galton, 1892) which looked at particularly successful individuals found that it was not ability but tenacity that led to success: while successful individuals clearly have ability, they become more successful than their similarly capable peers because of their determination. This gritty characteristic is shared by Deeta. She is very goal-driven in that she has set high but attainable goals and she fixates upon them.

I believe her frequent and widespread use of strategies helps her greatly in dealing with and acquiring language. At the end of iEAP, the participants in the 2010 iteration were given the SILL (Oxford, 1990). This was not a mandatory assignment and five of the seven participants returned the handout. Deeta scored the highest overall total – with an average of 4.05, indicating strategies are usually used, compared with the other participants’ mean results at 3.41, indicating strategies are sometimes used, demonstrating that she usually or always employs strategies to assist her in language learning. In particular, she enjoys working with other people as a resource to help her learn language. She also scored particularly high in terms of organizing and evaluating her learning.

While Deeta is still in the process of developing proficiency in English, she has not let this hinder her performance in university. She readily admits that she must be strategic with her studies and that reading is still a challenge, but she manages to cope with the demands of university by working hard and being involved. Deeta also claimed in her follow-up interview that she is not as self-motivated as she would like, but that her friends often motivate her. She is frequently on campus and has managed to develop a strong social network. In the follow up interview in Winter 2013, she noted that she had made a whole new group of friends who challenge her to be a better person and this has changed her “psychologically”.

While Deeta wishes she were more self-motivated, I see a very determined young lady. She is hard working and ambitious, but she is also open and available. While some of the other participants were reluctant to meet with me and required a bit of “chasing,” Deeta was consistently quick to respond and eager to meet with me. She is very dedicated to her school, takes her responsibilities seriously, but also enjoys them. While her language skills have improved to a level that is obviously enough to succeed at university, even her follow-up writing sample and GMRT are mediocre. She has worked hard on her language skills and improved a great deal, but she has also developed other strategies and qualities, such as long-term goal centeredness, connections with a strong social network, and familial support to compensate for her linguistic resources, which have certainly contributed to improvements in academic language proficiency. Deeta’s story is one of perseverance, determination, enthusiasm and hard work.

4.10.2. Mark.

Like Deeta, Mark has been very successful at university. Unlike Deeta, Mark stood out in iEAP as someone destined to succeed. Mark was an outlier, in many aspects of the word. He was the only Mandarin-speaking student in the class despite the fact that the Chinese are the largest minority group in Canada and highly represented at post-secondary institutions. Mark was also

the only student going into Health Sciences and the only student from his high school in iEAP. He was also extraordinarily motivated and consistently performed differently than the other students on assignments and testing.

While Mark is an outlier, he also has an important story to tell, which is relevant to the study at hand. Like Deeta, Mark is motivated and hardworking and he is living proof that with effort and commitment, success in post-secondary study can be attained.

Mark and Andrew represent two ends of the spectrum of academic performance. While Mark has done extraordinarily well at university, Andrew left his studies after a few difficult semesters. Although I do not want to lump together these two participants, it is important to keep in mind that there are certainly many different trajectories for these students. While Mark's is one of success, it is not the usual experience, but it is an experience that is attainable for these students who are smart, motivated, and who have the right opportunities.

Along with the other participants, a profile of Mark is outlined in Chapter Three. During Mark's time at high school, his grades were very high and he obtained excellent marks in Math and Sciences. ELA was his most difficult subject, yet he still received the highest result of all the iEAP students on his provincial diploma exam. His teacher-awarded mark was not comparatively high, nor was there the large gap between teacher-awarded and diploma exam marks that characterized the other participants' results. His final marks in his grade 12 courses can be found in Table 4.38 below.

Table 4.38

High School Transcript Grades (Mark)

Course	Grade
ELA 30-1	67
ELA dip	63
ELA class	70
Math 30	90
Math 31	94
Phys 30	86
Chem 30	88
Bio 30	90
SS 30	84

Note. ELA 30-1=total mark, ELA dip= grade on provincial exam, ELA class= teacher awarded grade, Math 30- grade 12 math required for university entrances, Math 31 – advanced math, Phys 30- Grade 12 Physics, Chem 30 – Grade 12 Chemistry, Bio 30 – Grade 12 Biology, SS 30 – Grade 12 Social Studies.

It can be seen that Mark's high school marks were very high, and this likely helped him not only get into his very competitive program, but also to be awarded scholarships. Although his ELA 30-1 was not as good as his other core subjects, he had the highest diploma exam mark of the iEAP participants. His Math and Science marks were all very good and he also did quite well in Social Studies. Yet, despite his exceptional grades, he still earned just 63% on the diploma exam and 67% blended in ELA 30-1.

While Mark's high school marks were better than the other iEAP participants, his pre- and post-testing scores were not particularly exceptional. Mark did fairly well on the testing. His results are presented in Table 4.39, but more interesting was his improvement over the six weeks. He had an average result on the GMRT pre-test and his post-test was the second highest in the class. Similarly he had an average pre-test result on the PAWT, but the highest post-test score, by a narrow margin. Finally, his overall writing sample score on his pre-writing sample was not sufficient to pass the EWT, but both assessors determined his post-sample to be two full steps

higher than their assessments of his pre-sample. Although vocabulary measures outlined in in sub-question 1 indicate that Mark was using better vocabulary than his iEAP peers on his pre-writing sample, his results on the post-sample were much improved. In those measures Mark was an outlier across vocabulary measures.

Table 4.39

Pre- and Post-Testing in iEAP (Mark)

Test	Score
Pre-GMRT	582 (GE 7.3)
Post-GMRT	613 (GE 9.3)
13-GMRT	686 (GE PHS)
Pre-PAWT	68
Post-PAWT	83
Pre-Holistic	U/MU
Post-Holistic	MS/S
13-Holistic	S

Note. GMRT – total score based on vocabulary and comprehension results on the Gates MacGinitie Reading Test, ESS – Extended Scale Score, PAWT- Productive Academic Word Test, Holistic scores are the overall grades according to the EWT assessors. Results are provided for Pre tests in July 2010, Post-Tests in Aug 2010, and Follow-Ups in Aug 2013.

Like Deeta, Mark was administered the GMRT again in 2013. By this time he had largely outgrown the test, which is designed for K-12 students. His overall levels were now PHS indicating his level is Past High School. His comprehension results were very high despite the fact that he did not complete the exam in the allotted time, but had almost all correct answers for the questions he did complete. In terms of vocabulary, his GE was 12.8, indicating a steady increase since 2010 – in July, 2010 his GE was 7.3, it was 9.3 six weeks later after completing iEAP, and it has continued to grow in university. Although he now demonstrates the vocabulary level of an average student preparing to complete high school, Mark has managed to successfully weather his course demands and is currently in his fourth year of university. Certainly this

knowledge of academic words belies well-developed academic skills. Mark's exceptional GPAs at UofC (3.15-3.88) further demonstrate his academic prowess.

After Mark was administered the PPVT-4 and the EVT-2, he reported to me that he had been quite frustrated by the testing, claiming that it highlighted many words that he lacked. He explained that there were examples of words that he never realized he did not know in English; these were the types of words that are generally learned in early childhood or junior high such as *fire hydrant* or *marsupial*. The fact that he was not in an English-speaking environment during the time of his life when he would have been exposed to these words affected his results, although he said he had little or no use for these words in his daily life. The first cohort of iEAP students was also administered Laufer & Nation's (1999) Levels Test, which can be found on lexutor.ca. This test measures passive vocabulary knowledge in word frequency bands K1 to K14, representing the first most common thousand word families to 14,000 word families.

Unsurprisingly the class's results showed a decline in performance from K1 to K14, meaning they were better able to recognize the high frequency words, and less able to correctly identify lower frequency words. Mark's results, however, were interesting; he scored well in the highest frequency word bands, but then lost some footing in word bands K7-K9, even dipping below the class average before gaining traction in K10-K12; he then dropped off again at K13. Again this demonstrates that Mark struggles with midrange words, yet he has rather successfully acquired lower frequency items. Figure 4.31 illustrates Mark's results compared with those of the rest of the 2010 class.

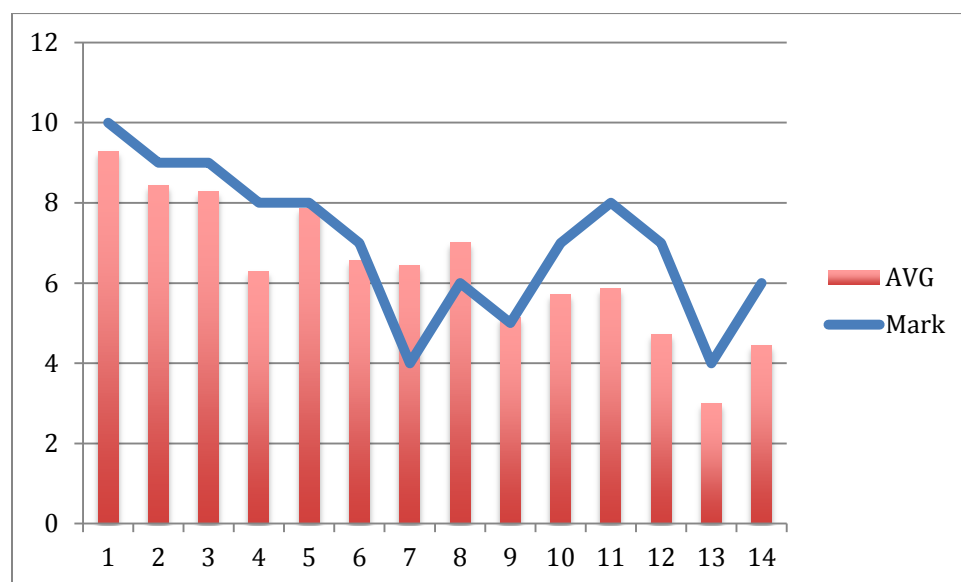


Figure 4.31 Levels test: Class scores compared with Mark's scores

The red bars represent the class average for the number of correct responses out of ten on the Nation's Levels Test for each of the 14K word bands. Mark's results are represented by the blue line and indicate that he actually dipped below class average for the midrange (K7-8) bands but demonstrated more knowledge in higher, less frequent word bands.

Much like Deeta, Mark's top two categories on the SILL were "Organizing and Evaluating Your Learning" and "Learning with Others." While Mark's SILL responses were very close to the average, and his total mean score was 3.39, compared to the other respondents' mean of 3.41; he rated learning with others higher than the rest of the group, at 3.83 compared to the mean of 3.17. Mark fell squarely in the middle of the SILL results, with Deeta and Rudrani employing more strategies and Adnan and Samad employing fewer. Nevertheless, it is clear that he is aware of and uses a number of useful strategies, especially in getting assistance from and learning with others. This social aspect of learning can be quite valuable in university where peer support can be especially important (Latino & Unite, 2012).

As can be seen from Table 4.40, Mark has done very well in university and he is thriving in a very demanding program where high marks are required in order to move on to medical school, which is what Mark wants to do.

Table 4.40

GPA across Semesters at UofC (Mark)

Semester	GPA
F10	3.88
W11	3.66
F11	3.85
W12	3.67
F12	3.15
W13	3.88

Note. F=Fall semester, W=Winter semester.

At university, Mark is very involved both in academic pursuits as well as extracurricular activities, recognizing that he will need a diverse resume when he applies to medical school after the completion of his first degree. At the time of writing Mark was an elected Student Union representative, participated in a number of clubs on campus, volunteered at two locations, and acted as a research assistant, all while maintaining a GPA of 3.88.

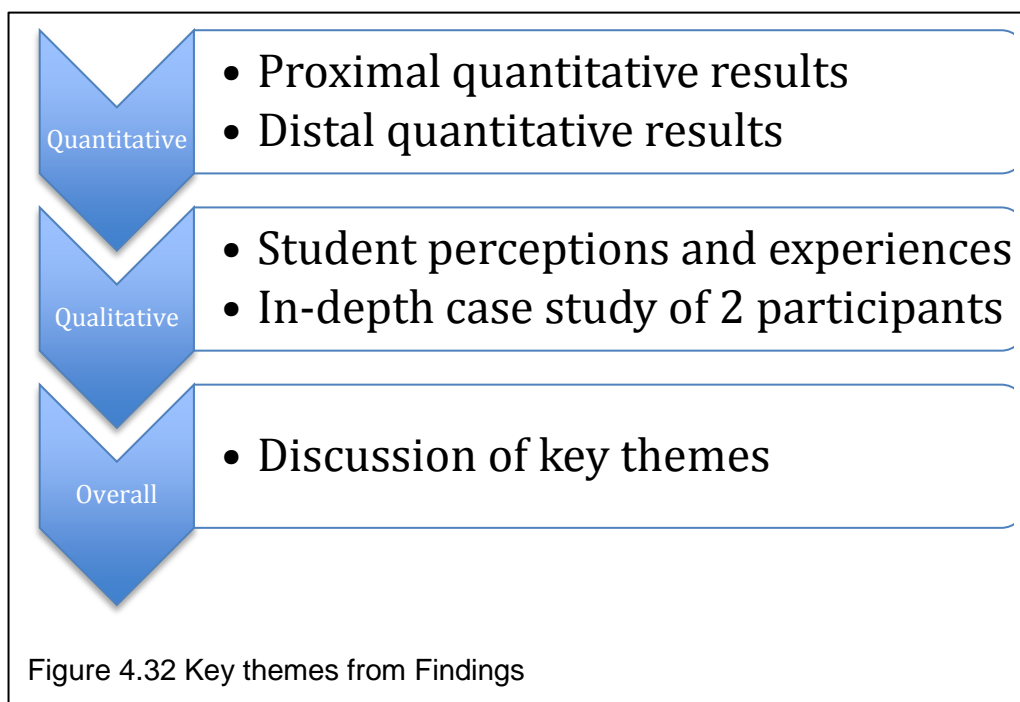
Again, although Mark clearly demonstrates that he has a good grasp of academic English, it is worth noting that he still has a number of surface errors both in his speech and writing. Using the follow-up writing sample he provided me in 2013, Mark demonstrates that he is able to construct a strong and effectively organized argument in the form of a persuasive essay. He continues to use a large number of academic and low frequency vocabulary items, although his writing still contains surface errors, especially in areas like verbal agreement and pluralization.

According to the assessment of his 2013 writing, based on the EWT assessment practices, Mark's paper was deemed "Satisfactory," which is the best of the four result categories. Mark's follow up writing assignment can also be found in Appendix L.

Like Deeta, I would argue that what has helped Mark to be so successful at university is largely influenced by personality traits. Mark not only also exemplifies grit (Duckworth et al, 2007) but also a positive approach to difficulties. While most of the other iEAP students complained about the challenging activities, Mark reported that he most enjoyed these challenging activities and was motivated by tasks that were a struggle. Rather than looking at something difficult as an obstacle, Mark approaches it as an opportunity. This attitude has most certainly contributed to his continued success.

4.11. Discussion of Findings, Introduction

In light of the findings presented earlier in this chapter, this final section contextualizes, compares, and discusses them by looking at the broader inquiries upon which this study hinges. This chapter opens with a discussion of the quantitative findings of short- and long-term effects of iEAP, and continues with an examination of the qualitative findings, finally culminating with a distillation all of the results to provide an overview of what has accounted for these ELLs' performance at university. Figure 4.32 provides a visual for the main ideas presented in this chapter.



4.12. Discussion of Quantitative Findings

The first over-arching question guiding this research was: *What are the proximal and distal effects of iEAP that are visible in a variety of measures that reflect on growth of English academic language proficiency and students' academic achievement?*

The pre- and post-testing results showed clear improvements on many different aspects of academic language proficiency, many of the results demonstrated large effect sizes (Cohen, 1988), and the statistical analyses performed on the participants' raw scores and vocabulary measures confirm that the iEAP students demonstrated statistically significant improvements on a variety of measures over the six weeks in the course.

Notably, the overall scores on writing samples improved. All students received the equivalent of failing grades on their pre-writing sample, while half the participants generated

passing-level writing assignments just six weeks later and the overall improvements were statistically significant at the .05 level. In order to better understand and explain this improvement, various aspects of their writing were analyzed in more detail. The participants produced work with substantially fewer errors upon completion of the program, and lexical measures indicated that the post- writing samples contained more academic and rare words, demonstrating that not only were they writing papers with fewer surface errors, but also with more diverse vocabulary. It is notable that the participants were able to accomplish this by actually decreasing the number of words in their texts, indicating that they were able to present their ideas more succinctly, and with more apt vocabulary and accurate syntax.

While productive writing is useful, more standardized measures can likewise be explanatory as well. The GMRT results demonstrated notable differences on the student vocabulary scores. Again, there was a large effect size and the class, on average, improved 1.5 GE levels in just six weeks in terms of general passive vocabulary knowledge. This is particularly encouraging because none of the vocabulary on this test was known to the curriculum designers or instructors, nor was it explicitly or implicitly addressed in class. While it is difficult to definitively explain this impressive gain, it may be that rather than learning all of these general vocabulary items in such a brief period of time, a direct and explicit focus on vocabulary acquisition and strategies ignited student learning and assisted students to better access latent knowledge. Similarly, due to the expectation of study outside of class hours, participants were likely exposed to more vocabulary; while the instructional and targeted vocabulary was planned, it may have also been a catalyst for the acquisition of more general lexis. This has important implications and highlights the efficacy of vocabulary instruction and focus.

While the GMRT focused on general vocabulary, the PAWT results demonstrated that over the course of six weeks students demonstrated an improvement in both accessing and accurately producing academic words. It follows that these words, which were either explicitly instructed and practiced or simply found in the reading and listening materials were acquired at even higher rates than the general vocabulary of the GMRT and improvements were statistically significant at the .001 level.

These three examples of pre- and post-testing, especially when coupled with samples of writing and oral assignments submitted throughout the course, clearly demonstrate that a marked improvement in academic skills and language proficiency occurred in iEAP.

Examples of the students' written and oral assignments were reviewed, and improvement in quality of academic communication skills also occurred over the six weeks. As the course progressed, participants demonstrated more diverse vocabulary choices and a greater understanding of academic expectations. Although the assignments themselves generated a wide range of performance as some assignments required different types of language, the general trajectory was one of improvement. This analysis of their assignments corroborated the pre- and post-test findings from sub-question 1 and demonstrated a more gradual improvement spanning the six weeks of iEAP.

Knowing that interventions and booster programs can be quite effective in the short-term, it was of interest to this study to explore whether or not these proximal effects would continue to positively influence future academic performance.

4.12.1. Longterm outcomes.

To gain a better understanding of the long-term academic effects of iEAP and the academic outcomes of the participants, sub-questions 4-6 were defined. While the first three sub-questions look at the proximal effects of iEAP, these next questions focus on the distal effects. Because of

the variable trajectories and their differing areas of study of the participants, it was not straightforward to compare the students, nor was it possible to use the same methods followed for sub-questions 1-3, where participants had all attended the same class and were administered the same testing.

The participants' academic trajectories proved to be highly variable. Each student has followed a different path and attained a differing level of success in his or her program. While some of the students proved to be exceptional university students, others struggled and ultimately were unable to keep up with the demands of post-secondary study. Of those that remained at UofC, some changed their program, while others stuck to their original majors.

The variation in subsequent academic experiences, combined with the fact that there were a number of faculties of entrance, confounds the findings, making it impossible to precisely determine the impact of iEAP on GPA. What is clear is that university is difficult and many ELLs are arriving at post-secondary institutions ill-prepared for the realities of tertiary level study.

An interesting result stemming from this section was the correlation between the ELA 30-1 diploma exam mark and first semester GPA. There was a very strong correlation between these two results, while there was very little correlation between university performance and teacher-awarded grades. This points to a large difference between teacher-awarded and standardized assessment. It also demonstrates that having a standard for performance, where all students in the province are ostensibly assessed on equal footing, can be valuable. As further discussed in Chapter Five, this also has implications for the post-secondary system, where no standard of writing is currently required since the retirement of the EWT. While high stakes testing can be problematic when used for gatekeeping, such measurements can also serve to

better understand the language proficiency of students admitted to university and identify those who are academically vulnerable with the goal of better providing support, retaining students, and producing successful graduates.

Another interesting correlation, which supports one of the assumptions upon which this project is based, is that lexical production is an important factor of academic success. Indeed the participants' lexical performance based on their use of the less frequent word families in the K3+ families on their pre- and post-writing samples was strongly and positively correlated with their first semester GPA. The post-writing sample was very strongly positively correlated with the first semester GPA, which may indicate that some of the vocabulary acquired during iEAP had a bearing upon the participants' transition to university and that our focus on vocabulary in the iEAP curriculum was not misguided.

4.13. Discussion of Qualitative Findings

The second overarching question this research sought to address was: *How do students perceive their participation in iEAP, and the impact of iEAP on their subsequent academic engagement at university?* This question was explored in detail through sub-questions 7-9. These questions were more qualitative in nature than the previous, and incorporated data from interviews, surveys, field notes, and observations.

Sub-question 7 focused on the participants' experiences and perceptions of their involvement in iEAP, while sub-question 8 explored their insights into their experiences in university. Overall, these two sub-questions corroborated and contextualized the more quantitative findings of the previous sub-questions. While those results showed measurable improvements, these two sub-questions provided the perspective of the participants themselves.

While the pre- and post-testing clearly indicates that there were tangible improvements in academic skills, the students, too, reported that their participation in iEAP was valuable. On the whole, the learners reported that they what they learned in the course was useful and that it gave them the opportunity to prepare for their upcoming university experiences.

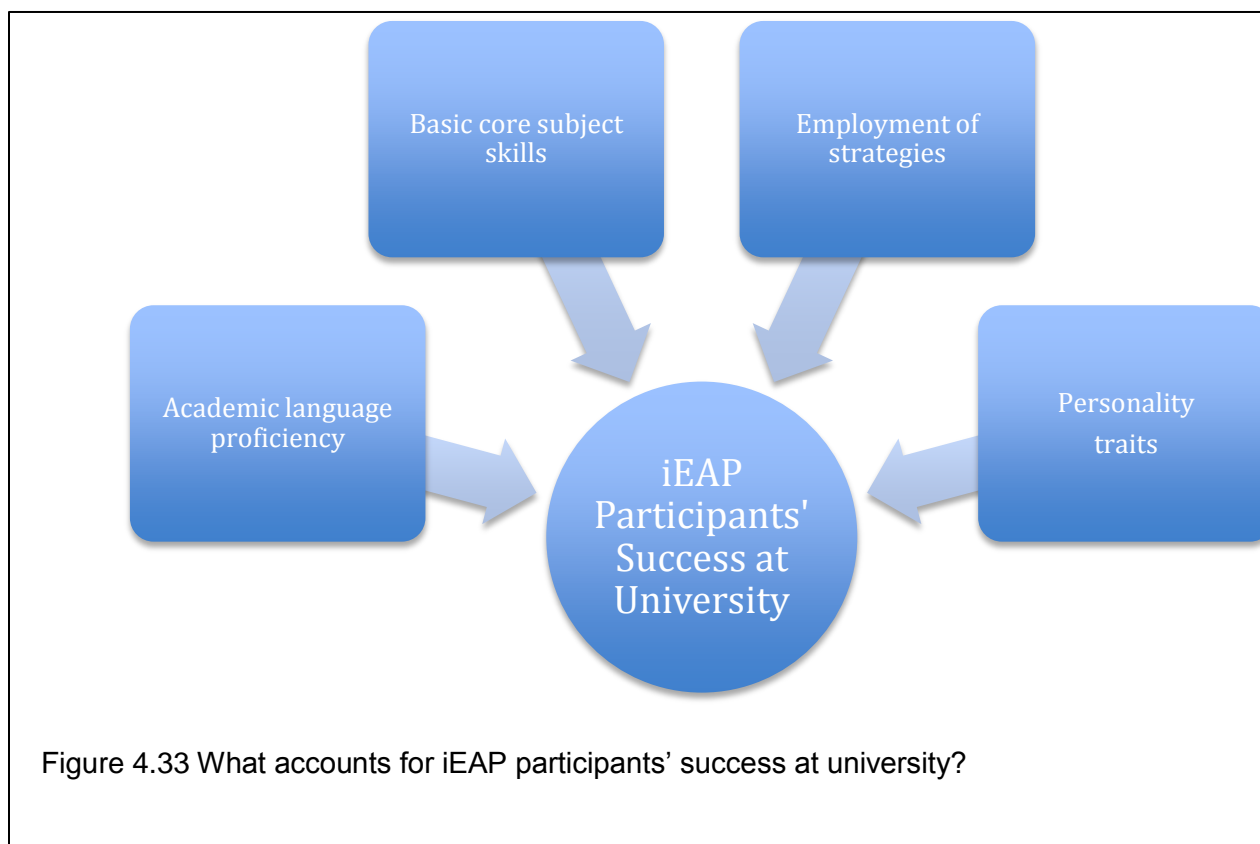
Another theme that emerged was that, on the whole, they felt that their high school courses had not provided them the same opportunity. It is notable that across the board, the iEAP participants responded that they felt their secondary schooling experiences had not adequately prepared them for the transition to university. This is indicative of a disconnect between what is occurring at the high school and university levels.

Finally, experiences and perceptions were explored in greater detail in sub-question 9, which focused on the experiences of two individual participants who have been particularly successful at university. It also presented information about results on a recent follow-up writing sample and GMRT which demonstrated that, unsurprisingly, they continued to improve their academic writing skills, their reading comprehension, and general vocabulary levels. While they made gains, their linguistic performance does not account for all of their successes and is not commensurate with monolingual peers. These students also displayed a high level of grit and goal-orientation, perhaps compensating for and advancing their language skills.

4.14. Overarching Themes That Contribute to Academic Success

While the findings presented in the previous chapter and discussed here are varied and wide-ranging, five overlapping themes emerged. When considered together these four themes answer the question “*What accounts for the iEAP participants’ success at university?*” These themes will be discussed separately but work synergistically to contribute to university achievement. Figure 4.33 outlines the four emergent themes, each of which is further explained below. While

some of them, such as personality traits and the employment of strategies, are likely to be ingrained from a young age, they can also be shaped throughout schooling experiences. The others are more directly connected to both content and language education.



4.14.1. Academic language proficiency.

Because these marginal ELA 30-1 marks indicate academic vulnerability, iEAP was developed under the premise that the design of the intervention would support the accelerated learning of key academic vocabulary and learning strategies, positioning the students for better transition to their programs. This premise was also corroborated through the very strong positive correlations demonstrated between ELA 30-1 diploma exam results and first semester GPAs, indicating that ELA 30-1 scores can be useful in identifying students and subsequently providing support to those who are academically vulnerable and at risk of a poor transition to university.

Those with better ELA 30-1 exam marks and demonstrated greater lexical stretch in their pre- and post-test writing samples were also the students who more successfully transitioned to university, indicating that spontaneous production of writing is connected with the skills required in university. Both the ELA 30-1 diploma exam and the writing samples were administered with time pressure and pushed the test-takers to write naturally about a previously unrevealed topic. Both of these tasks require a flexible use of vocabulary, an understanding of academic expectations, and an ability to retrieve and use appropriate language.

4.14.2. Basic academic skills.

The skills that were learned in high school in core subject areas such as math and science were reportedly valuable to the iEAP participants once they entered university. While many of the participants claimed that their high school experiences did not adequately prepare them for university study, the consensus was that the basic core subject skills that they learned in high school were useful in university, especially in disciplines such as Engineering. All of the Engineering students reported that their exposure to the basic skills in high school allowed them to master these basics, which in university were taken for granted and made their subsequent content learning easier, as the fundamentals were already made automatic through previous repeated exposure.

The iEAP participants reported that one of the most valuable skills they learned in iEAP was to properly reference and cite outside sources. A repeated theme in the follow up interviews was that an understanding of academic conduct and the ability to properly reference and cite outside sources was falsely assumed at university. This was not a skill they had been adequately exposed to in high school, indicating that the skills university instructors expect and those instructed in high school are misaligned.

4.14.3. Employment of strategies.

As established in Chapter Two, having a vast repertoire of learning strategies at one's disposal is key to academic success for both general learning and the reduction of anxiety in the classroom (Mohammadi et al, 2013). The SILL (Oxford, 1990) questionnaire proved useful in identifying the iEAP participants' use and awareness of a variety of different linguistic and academic strategies. Again, it would appear that those who best understood and employed a wide range of strategies seemed to transition best to academia. In particular, Deeta and Mark, the two participants who have been most academically successful, also noted that they both valued peer collaboration as an important resource. Furthermore, in follow-up interviews these two mentioned strong connections to the university community and a core group of peers who assist and support them in their academic endeavours.

4.14.4. Personality traits.

Finally, certain characteristics, or personality traits, seem to influence academic outcomes. There are three main traits under this broad umbrella that emerged as being the most influential. The first trait is independence; the iEAP participants repeatedly noted that the transition to university from high school was difficult, and the issues most cited were time management, understanding course requirements, and handling the large class sizes. These difficulties were best managed by those who indicated in their follow up interviews that they had developed more autonomy. More autonomous students recognized the need to be accountable for how they managed their time, how they communicated with faculty to understand course demands, and how to deal with the lack of personal attention in large lectures. They quickly learned that in university there is no "hand-holding" and it was required of them to not only do the work, but also find out how and when to do it.

Besides autonomy, the two students who have been the most academically successful were also very goal-oriented. They set for themselves realistic goals both for the short-term and the long-term. Setting realistic goals for which to strive likely contributes to their continued success at university. By looking at the bigger picture and recognizing the value of their university studies, they have also been able to set up short-term plans to attain their larger goals in manageable increments. It is also likely that goal-setting strategies can be directly taught and expressly practiced in iEAP and a variety of educational settings.

Finally, and closely connected to goal-orientation, is the notion of “grit” (Duckworth et al, 2007). Gritty individuals are particularly successful not only because they are goal-oriented, but also because they are not easily discouraged. Rather than seeing setbacks such as failed or challenging courses as obstacles to their success, those who display grit use these experiences as opportunities to learn and grow. Recent research (Roessingh & Douglas, 2014) has also noted that ELLs are more willing to retake failed classes, attend year-round schooling, and seek extra-curricular support than are their monolingual peers, which is indicative of grit. In order to compensate for, as well as further develop, academic language skills, grit is a vital characteristic for those who are academically vulnerable and transitioning to university.

4.15. Strengths of the Study

This study provides a unique contribution to the understanding of challenges faced by local ELLs as they transition into UofC, and the effects of the iEAP curriculum on a unique group of learners. By using quantitative data from pre- and post-tests coupled with the participants’ academic outcomes over the next two to three years at UofC, a glimpse into both the short and long-term effects of this curricular intervention has been offered. These findings are further

strengthened and confirmed through the inclusion of qualitative data obtained during the implementation of iEAP and in the years following.

The study is further strengthened in that two iterations of iEAP were run. The first was administered in 2010, the year in which it was first conceived, and the second the following year. Each iteration was taught by a different instructor, each of which had her own unique perspectives and interpretation of the curriculum. The outcomes of both iterations were similar, suggesting that the improvements were indeed connected with the curriculum, rather than the individual instructor.

An additional strength of this study is that it is longitudinal, following two diverse cohorts of students over their first three (in the case of the 2010 iteration) and two (in the case of the 2011 iteration) years at university. This long-term and in-depth approach was possible due to the relatively small number of participants in the study.

4.16. Limitations of the Study

This study is limited by its size. While two iterations of iEAP were run, just 11 students took part in these classes over the two years, and ten consented to participate in this research project. While the findings are quite detailed, they only apply to these participants themselves, and cannot be extended to other local ELL high school graduates.

Another limitation of this study is the participant variation and attrition. Upon completion of iEAP, the participants all undertook different university programs, and their performance in these programs has been variable, making it difficult to compare and analyze their academic outcomes. Furthermore, due to the quasi-experimental nature of this research, a control group was not possible, and so it is not possible to draw any conclusions beyond this particular group of learners.

4.17. Assumptions

This study assumes that the results of the pre- and post-testing are accurate and that lexical richness can be measured and quantified by comparing writing samples to other corpora. This study also assumes, to some extent, that proficiency in academic language is necessary for success in an academic setting.

4.18. Chapter Summary

This chapter has addressed the nine sub-questions defined at the beginning of the chapter. The procedures and results of each sub-question were presented separately. The chapter then considered and contextualized the sub-questions' findings. It has explored how the quantitative and qualitative findings are connected to each other and bolster the overarching results that indicate the iEAP had positive outcomes for the student participants, who demonstrated impressive gains in a short time, and some of whom have gone on to attain success in their post-secondary study, despite their original identification of being at academic risk. It went on to highlight four broad themes that emerged in response to the distilled question: *What accounts for the iEAP participants' success in university?* Finally, the chapter concluded with a brief discussion of the strengths, weaknesses, and assumptions of this research project. The following, and concluding, chapter will provide a brief overview of this study and present programmatic and policy implications, as well as directions for future research.

CHAPTER FIVE: Summary and Conclusion

5.1. Introduction

This study has demonstrated that, while ELLs often arrive at university without the academic proficiency necessary for the engagement with university level materials in place, many positive changes can occur in a relatively short amount of time, and learning can be accelerated.

Although the gains in both iterations of iEAP were striking, they also indicate that there remains a need for programmatic changes both upstream and downstream from university admittance to ensure that local ELLs arrive to university positioned for success.

It has been demonstrated in this work that the demographics of K-12 students and university entrants have undergone a rapid shift over the last few decades. The sheer numbers of language minority students in Canada's education systems belies a complex profile of learner. Each student has his or her own socio-economic background, length of Canadian residency, level of parental education, exposure and access to academic discourse, and innate abilities which, among many other factors, all influence and affect his or her educational outcomes. This thesis does not suggest that there is a one-size-fits-all approach to best preparing local ELLs entering university to succeed, rather it highlights the often unmet needs of these students. This final chapter will suggest programmatic and policy implications to better meet the needs of both these diverse students, as well as the institutions that seek to educate them.

The results demonstrated by the participants on their pre-testing indicate that university entrants are often not adequately prepared by their K-12 experiences for university achievement, and this may be especially true for ELLs who are still in the process of developing academic language proficiency. While the post-program levels that the iEAP participants exhibited were substantially higher than their pre-program levels, they were still often not enough to mitigate the

shift to university. These students were admitted to university at a language level well below what is anticipated by university-level materials. This is illustrative of a problem that needs to be understood and addressed by the provost's and registrar's office, with a view to revisiting admission policy, working with the local school boards that feed the university system, and considering a variety of downstream and upstream supports and interventions.

5.2. Programmatic Implications Prior to University

ELLs face many challenges in their academic trajectories, and time is one of them. Six weeks simply is not enough time to address all the aspects of academic literacy that were not adequately attended to in previous educational experiences. Such focus on academic preparedness needs to be factored into curricula much earlier and more often (Briggs, Clark & Hall, 2012).

Addressing the specific learning needs of these students is warranted due to the growth in numbers of ELLs in local school boards over the past decades. Efforts ought to be made not only in the later years as university draws nearer, but also throughout the K-12 system. The growth of ELL populations in the early school years (K-3) is especially rapid. It is therefore pertinent to provide an early focus on language with a long-range vision, with the goal of closing the gap early rather than hoping that language learners will somehow catch up, even as content instruction becomes increasingly difficult.

It is recommended to work with these learners from the beginning and address their specific linguistic needs to better prepare them for their later academic endeavours. Previous Canadian research (Tooey & Derwing, 2008) has demonstrated that ELLs are often not sufficiently tracked throughout the K-12 system, confounding their identification for targeted support. A key component of this early intervention is assessment and tracking to ensure that

linguistic and academic targets are being met by all of our students. Therefore, it is necessary that better systems be in place to track these learners and their progress.

Many of the techniques crafted into the iEAP curriculum can be integrated into earlier K-12 classes both in English as an additional language (EAL) programming as well as mainstream content-area classes. Language learning is not the sole responsibility of EAL or ELA (English Language Arts) instructors; rather, language is acquired in every course, and all teachers can incorporate a greater emphasis on and awareness of language in their daily activities, simply through recognition activities and the explicit instruction of key vocabulary. For example, content area teachers will currently highlight discipline-specific vocabulary that are already found in textbook glossaries in their classrooms, such as words like *nationalism* in Social Studies or *biodiversity* in Science. While these words are key to content understanding, instructors can also help students develop vocabulary skills by drawing their attention to word features, such as noting that the root *bio-* means life, and is also found in words such as biology and antibiotic. The instructor could also note that the endings *-ity* or *-ism* indicate these words are nouns and then ask what students think the adjectival or other related word forms might be.

Most of the content words currently addressed in the classroom are clearly explained in the textbook glossary, and their meanings are already made explicit to students. Teachers can therefore help students to recognize and understand the more general academic vocabulary that is not addressed by textbooks but still integral to thorough comprehension. Teachers can highlight words such as *fundamental* or *indicate* which are important for comprehension across disciplines, but often remain unaddressed or underused by students. It serves students well to ensure they have their tier two vocabulary is not overlooked in favour of tier 3 words (Beck & McKeown, 1985). These are just a few brief examples of how academic literacy can be easily

incorporated into mainstream classes, and there are many other useful techniques. Through professional development and support for EAL and content-area instructors in order to better integrate the development of academic literacy into their everyday teaching, all students, and especially ELLs, can be better prepared for the rigours of academic study.

To help students with language needs manage the demands of content area courses, sheltered instruction can be effective in that learners can have the opportunity develop their skills with their peers. Similarly, adjunct courses can be very useful for mainstream students who would benefit from additional scaffolding and language instruction and practice, but still want to take part in mainstream courses with all their peers. Although these models already exist in some school boards and are often quite successful, they can be costly or logistically difficult to implement, especially when language teachers are not familiar with the content area or the number of ELLs in a school does not warrant the cost of additional support for mainstream courses.

This thesis indicates a demand for the explicit instruction of academic literacy, which can be accomplished through a dedicated sustained content-based approach, and a course using the principles guiding the development of iEAP could easily be realized in secondary educational settings as an option. In such a scenario, learners would be exposed to both content area information and academic and linguistic instruction. It would also not separate ELLs from their peers in content area instruction or require extra time commitments toward one course as in the cases of sheltered and adjunct courses, respectively.

This model could be particularly effective as it would be offered for credit, which would not only motivate students to partake in the program, but also reflect the validity and usefulness of a course focused on the development of academic literacy and writing skills. As reflected in

the recruitment difficulties experienced with attracting iEAP participants, it is difficult to recruit students to voluntary courses. In order to be effective and attended, a course such as iEAP needs to be offered in exchange for recognition in the form of credit.

iEAP itself was designed to be flexible, and could be easily adapted to a high school credit course. A course such as iEAP would be likely be most accessible and helpful to students in Grade 11 or 12 and could be administered before ELA 30-1 with the added benefit of improving student performance in that course and on its diploma exam, which is important for university admittance.

As demonstrated by the ELA 30-1 diploma exam results, the GMRT scores, writing sample results demonstrated in this document, as well as the research literature outlined in Chapter Two, it would appear that many ELLs are not acquiring the academic language skills necessary for university study before the completion of high school. This study has also demonstrated that many academic skills can be acquired in an accelerated learning environment, although the long-term effects of such a course are difficult to distill. It is vital to ensure that the outcomes of high schools are better aligned with the expectations of tertiary study.

5.3. Programmatic Implications in University

The reality is that many post-secondary institutions in Canada are facing an onslaught of learners with distinct needs. It is key that universities work collaboratively and in closer coordination with the local school boards from which they draw the bulk of new admissions (Briggs, Clark & Hall, 2012). This is especially true for UofC, which admits thousands of local high school graduates every year. By working directly with the feeder high schools, there can be better communication about the requirements of university and an improved understanding of the skills that are required for university success. An example of this is that many iEAP participants

reported that it was assumed by university instructors that they were already well-versed with referencing and citations; however, in reality they had not practiced these skills at all during their high school experiences. This collaboration can ensure that the instruction in the K-12, and especially high school grades, is aligned with the requirements and demands of university study.

To ensure that well-prepared entrants are admitted to university, it is vital that post-secondary institutions revisit their admissions policies in order to identify students who are likely to struggle with the transition to university. Key indicators, such as the ELA 30-1 diploma exam, can aid in identifying learners likely to benefit from additional support, either as a requisite to or upon admittance to university. The goal is not to prevent students from gaining admittance to university; rather, it is to ensure that admission standards are well-aligned with the support services available, and that all post-secondary students be provided with the academic support necessary to ensure they reach their full potential as university students.

It is crucial to identify such students before they are on academic probation or required to withdraw from studies. This function was previously served by the Effective Writing Test, which, in part, served to identify those who needed help in academic writing and provide them with relevant support. Although there is the controversial gate-keeping function of such high-stakes testing, such an exam can be better used to support the language learning needs of those already admitted and help students themselves recognize the value of academic language skills. Such tests bring students into writing centres and direct them to suitable support systems such as peer tutoring programs or writing classes and workshops.

Writing and language support classes can be difficult to administer for a number of reasons. Prospective students may feel as though these courses are overly general or they may be unmotivated to register in courses outside their discipline, believing them to be irrelevant (Baik

& Greig, 2009; Wingate, 2006). The reality of the situation is that support programs are not likely to be successfully integrated unless they are credit-bearing or required by the university or target faculty. Likewise, support from key players at a high level within the institution is needed to ensure a well-funded, integrated, and enduring program (Hirsh, 2006).

There are many models for supporting the success of new university students, such as peer mentorships (Pitkethly & Prosser, 2001), where first year students are paired with students more advanced in the same programs. These mentors can help new learners better transition to university life, understand the requirements of academic study, and navigate the academic services available based on recent first-hand experiences. Similarly, universities can encourage and facilitate peer support groups, which are especially effective in that students develop a strong peer network to provide them with support and information early in their academic programs. The participants can then maintain and strengthen these contacts throughout their university careers. An example of such a successful program in the U.S. is the Posse Foundation, which partnered with 51 colleges and universities in the US in 2014. At the time of writing, it had just celebrated its 25th anniversary and had a 90% persistence and graduation rate (The Posse Foundation, 2014).

It is the enduring nature of peer mentorships and support programs that is key; Pitkethly and Prosser (2001) found that the intense week-long orientation programs currently offered at many institutions are often not effective as they are short-lived and participants are overwhelmed at the amount of information they receive in a short time. Rather, the authors suggest that such orientation programs be spread out throughout the first year and beyond.

While there are a few extracurricular writing courses available, it is difficult to motivate already academically burdened students to partake in additional courses. Offering credit or

making courses such as iEAP compulsory for at-risk students sends a clear message to newly admitted students that academic language skills are valued and necessary for university.

Experience dictates that without this ‘carrot and stick’ approach, students are highly unlikely to participate in such courses, even when they are free of charge. Many other universities across Canada, such as UBC, require students with low thresholds of academic literacy, as visible in measures such as writing samples or high school ELA marks, to address this concern by providing accredited coursework. It is recommended that UofC follow suit.

5.4. Recommendations for Future Research

The outcomes and findings from this study are very promising and indicate that future research is warranted. Undertaking a larger, data-based study at UofC in order to refine the findings of this current small-scale study is recommended, with a particular focus on revisiting the quantitative results with a larger body of participants, while at the same time attracting more students to an academic and language support class. Both the financial and social costs of repeated courses, failure, withdrawal, marginal pass grades, and academic probation all warrant further investigation and an informed response.

Longitudinal study is key in generating the most explanatory findings. By tracking these and similar students, not only through their university careers, but also their transitions into the workplace, a broader picture will emerge. Such a study would also help to provide a body of research on how well universities are aligned with the demands of the modern workplaces students are preparing to enter. This is the natural progression of the previously discussed need for K-12 systems to ensure they are aligned with the demands of university.

It is important that universities adequately prepare their graduates for the workforce. Canadian research in this area is scant, but studies in the US indicate that many university

students in this demographic are not getting jobs in their area of academic preparation or find themselves indefinitely stuck with entry-level work (Crouch & Banks Zakariya, 2012). If this is also the case in Calgary and Canada, it suggests a significant loss to the larger economy that must be better understood and addressed by further research.

The implications of this study are vast. While the case itself is quite narrow and somewhat limited by a small sample size, it also allowed a deep probing into the subject to look at many aspects of academic preparation of ELLs. The key finding of this research is that with carefully designed and implemented curricula, ELLs can make enormous and impressive strides in a very short amount of time. This has implications to administrators and policy makers throughout the K-16 system.

5.5. Conclusions

This study has demonstrated that there is hope for ELLs with university aspirations. This research has indicated that academic language proficiency plays a key role in academic success. Many ELLs appear to be arriving to university without the linguistic repertoire demanded of university study, and the clearest indication of this are the marginal ELA 30-1 diploma exam marks displayed by the student participants that indicate students are often admitted into university study despite markers of academic vulnerability. However, the gains made in the 120 hours of instructional time in iEAP were striking and demonstrate that a great deal of progress can be made in a limited time. Carefully-crafted curricula coupled with well-designed materials and targeted instruction can have a strong and positive effect on academic language proficiency.

Academic language proficiency is indeed within reach for these students and can be acquired with targeted, direct, and well-designed instruction and planning to prepare ELLs for university success begins during the K-12 years. Programming and support to meet their needs in post-

secondary settings are necessary and can be very effective. Well-designed and implemented curricula can have very positive outcomes on the academic trajectories of ELLs. Policy and programmatic integration, professional training, and accreditation for academic language and readiness courses will most certainly improve the educational outcomes for so many local graduates. The “new mainstream” (Enright, 2010) is here. May we respond appropriately.

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APPENDICES

Appendix A: List of Acronyms Used

AWL	(Academic Word List)
AOA	(Age on Arrival)
BICS	(Basic Interpersonal Communication Skills)
BNC	(British National Corpus)
CALP	(Cognitive and Academic Language Proficiency)
CBE	(Calgary Board of Education)
COCA	(Corpus of Contemporary American English)
CSSD	(Calgary Separate School District)
DBR	(Design-Based Research)
EAPP	(English for Academic Purposes Program)
EAL	(English as an Additional Language)
ELA	(English Language Arts)
ELL	(English Language Learner)
ELP	(English Language Proficiency)
ESS	(Extended Scale Score)
EWT	(Effective Writing Test)
G1.5	(Generation 1.5)
GE	(Grade Equivalency)
GMRT	(Gates MacGinitie Reading Test)
GPA	(Grade Point Average)
iEAP	(intensive English for Academic Purposes)
K-12	(Kindergarten to Grade 12)
K-16	(Kindergarten to University Completion)
L1/L2	(first Language/second Language)
LBD	(Learning by Design)
LM	(Language Minority)
LOR	(Length of Residency)
MS	(Marginally Satisfactory)
MU	(Marginally Unsatisfactory)
MRU	(Mount Royal University)
NES	(Native English Speaker)
NNES	(Non-Native English Speaker)
NNS	(Non-Native Speaker)
NS	(Native Speaker)
PAWT	(Productive Academic Word Test)
PPES	(Post-Program Evaluation Survey)
S	(Satisfactory)
SES	(Socio Economic Status)
SLA	(Second Language Acquisition)
TTR	(Type Token Ratio)
U	(Unsatisfactory)
ULeth	(University of Lethbridge)
UofA	(University of Alberta)

UofC (University of Calgary)
ZPD (Zone of Proximal Development)

Appendix B: High School Grades

Table

iEAP Student High School Grades

Student	ELA 30-1	Math 30	Math 31	SS 30- 1	Phys 30	Chem 30	Bio 30	SS 30- 2	Other
1	53 (63, 43)	75 (78, 72)	-	-	-	71 (75, 66)	-	69 (74, 63)	-
2	60 (65, 54)	68 (71, 65)	-	65 (75, 54)	-	-	-	-	Sci 30 66 (74, 58)
3	61 (75, 47)	76 (80, 71)	91	-	58 (64, 52)	75 (71, 78)	-	75 (81, 69)	-
4	59 (72, 46)	90 (91, 88)	86	76 (79, 72)	69 (81, 56)	88 (91, 85)	-	-	-
5	62 (72, 51)	73 (75, 71)	82	-	-	-	74 (80, 67)	72 (80, 64)	-
6	64 (74, 54)	70 (81, 58)	-	71 (87, 55)	66 (84, 48)	60, (82, 37)	76 (80, 72)	-	-
7	67 (70, 63)	90 (97, 82)	94	84 (82, 86)	86 (93, 78)	88 (88, 88)	90 (93, 87)	-	-
8	65 (81, 48)	87 (86, 88)	88	-	72 (78, 66)	85(83, 87)	-	75 (77, 73)	-
9	66 (72, 60)	82 (80, 83)	-	67 (72, 61)		87 (87, 87)	-	-	-
10	-	-	-	-	-	-	-	-	-

Note. Total grades are provided first, then in brackets are first the teacher-awarded final grade, then the final grade on the provincial diploma exam.

Appendix C: Productive Academic Word Test

Name: _____

Date: _____

Directions: To answer the questions, you must select the word from the list that best fits the sentence. You must also, if necessary, change the form of the word so that the sentence makes sense.

Example:

close music time like

1. Even after 3 years of piano lessons I still can't play a song; my sister, however, is very _____.
2. Alex didn't want to burn his dinner again, so he set the _____ on the oven.
3. I wouldn't say I hate broccoli, but I definitely _____ it.
4. It was a really _____ game – for a while I thought we were going to win.

1. Even after 3 years of piano lessons I still can't play a song; my sister, however, is very musical.

("Music" is the best answer and it has to be changed to an adjective)

2. Alex didn't want to burn his dinner again, so he set the timer on the oven. (*"Time" is the best answer and has to be changed to an object which measures time*)
3. I wouldn't say I hate broccoli, but I definitely dislike it.
("Like" is the opposite, so it has to be changed to "dislike" to make sense)
4. It was a really close game – for a while I thought we were going to win. (*"Close" is the best choice and it doesn't need to be changed*)

If you are unsure of which word to use, skip the question – leave it blank

**contribute establish focus
network range sustain**

1. Our current use of fossil fuels is completely _____ unsustainable _____.
We must find alternate fuels.
2. Success or failure in learning a language will be determined by what you yourself
_____ contribute _____ to the process.

3. The police have not yet been able to _____ establish _____ the cause of death for a man who was found floating in the river.
4. I spent a lot of time at the conference _____ networking _____ with other teachers who share a common interest in vocabulary development.
5. The environmental organization Greenpeace relies for funding on _____ contributions _____ from individual supporters and foundation grants.
6. Summertime temperatures in this region _____ range _____ between 20 and 30 degrees.
7. We will be _____ focusing _____ on learning academic vocabulary in this course.
8. In order for government to be truly responsive to the people, it needs to be _____ accessible _____ in some form to the average citizen.
9. Speeding is a _____ contributing _____ factor in more car crashes involving new drivers than any other factor.
10. Life cannot be _____ sustained _____ for long periods without water.
11. Edward de Bono once said that creativity involves breaking out of _____ established _____ patterns in order to look at things in a different way.
12. More than one billion people on our planet lack _____ access _____ to safe drinking water.
13. We chose the colour for our living room from a wide _____ range _____ of choices at the paint shop.
14. People are more likely to act in a group-oriented way if they are tied together by shared _____ networks _____ of communication and friendship.

achieve	adjust	approach	conventional	describe
major	outcome	promote	therefore	whereas

15. The Inuit have more than 20 words to _____ describe _____ snow.
16. The politician listed all the _____ achievements _____ made during his time in office, and asked the crowd for their support in the coming election.
17. The first stage of _____ adjusting _____ to life in a new culture begins before the travellers even leave home.
18. Guatemala is the only country in the world where American Indians are a _____ majority _____.
19. Eating too much sugar _____ promotes _____ tooth decay.
20. It's a little early to know the _____ outcomes _____ of the operation, but her doctors are optimistic.
21. _____ convention _____ dictates that the oldest son in Japanese society cares for the parents when they are old.
22. Even moderate exercise is good for the health, but greater health benefits can be _____ achieved _____ by increasing the amount of physical activity.
23. There are often several _____ approaches _____ to diagnosing and treating a health problem.
24. When thinking about your goals for learning English, it is important to have goals which are realistically _____ achievable _____; if not, you will just get discouraged.
25. _____ conventional _____ medicine had failed him, so he turned to alternative therapies.
26. The young boy refused to obey the teacher. _____ therefore _____, he was sent home.
27. North American society is very individualistic, _____ whereas _____ in my country people are more interested in social harmony.
28. Russia is a _____ major _____ exporter of wheat.

correspond **demonstrate** **equipment** **factor** **impact**
link **location** **research** **therefore** **transfer**

29. The _____ link _____ between smoking and cancer is too strong to ignore.
30. Your monthly bus pass is not _____ transferrable _____ to anyone else.
31. Recent studies have _____ demonstrated _____ that drinking green tea may help to prevent breast cancer.
32. The construction of roads along the stream to carry logging trucks into the forest is seriously _____ impacting _____ important salmon habitat.
33. The decrease in the number of tourists to our city _____ corresponds _____ to the increase in the value of the Canadian dollar.
34. She is part of a team which is _____ researching _____ how the SARS virus was introduced into this country.
35. Scientists say that more germs are _____ transferred _____ by shaking hands than by kissing.
36. It took us a couple of days to properly _____ equip _____ ourselves for the hike.
37. Our salaries have increased a bit, but if the cost of living is _____ factored _____ in, our real wages have actually gone down.
38. Fat in a woman's diet is _____ linked _____ to an increased risk for breast cancer.
39. The housing complex is conveniently _____ located _____ near a shopping plaza.
40. Environmental pollution seems to be an important _____ factor _____ in the increase in cancers all over the world.
41. Changes in the American economy generally have a serious _____ impact _____ on the economy in Mexico.
42. _____ Locating _____ the wreckage of the plane that crashed will be difficult unless the weather clears up.
43. She has little experience and has _____ therefore/correspondingly _____ found it difficult to get a job.
44. The _____ transfer _____ of power to the black majority in South Africa took place quite peacefully.

- | | | | | |
|---------------------|----------------|------------------|-------------------|-----------------|
| consequence | element | facility | focus | function |
| illustration | occur | otherwise | particular | resource |
45. The accident _____ occurred _____ because of a lack of attention on the part of the driver of the truck.
 46. She _____ illustrated _____ her point in the debate with a number of personal anecdotes.
 47. Forty percent of the world's population lack access to even the most minimal of toilet _____ facilities _____.
 48. Line-ups at food banks have become a common _____ occurrence _____ in a city where these organizations didn't even exist 20 years ago.
 49. The power of religion to effect conflict has been dramatically _____ illustrated _____ in Northern Ireland.
 50. The music of Cape Verde combines _____ elements _____ of Portuguese, African and Brazilian styles to create an entirely unique art form.
 51. Too many parents in this country simply don't have the _____ resources _____ to feed or clothe their children properly.
 52. As one of the fastest growing economies in the world, Korea is working to become the _____ focal _____ point of a powerful Asian economic bloc during the 21st century.
 53. Decreased tourist revenues are _____ consequences _____ of the effect that the SARS outbreak had on travel to Canada.
 54. The power station should be fully _____ functioning _____ by the end of the year.
 55. His experiences travelling on his own throughout Asia have made him a very independent, _____ resourceful _____ person.
 56. She continued to miss class; _____ consequently _____, she was asked to leave the program.
 57. Their band doesn't really play any specific type of music in _____ particular _____; they just play whatever their audience wants.
 58. Children need something to occupy their time; _____ otherwise _____, they get bored.

approximate construct diverse generate incorporate integrate
nevertheless suggest

59. Community colleges offer free language and citizenship programs to aid in the rapid _____ integration _____ of immigrants into our society.
60. The study of magnetic properties in the rocks of North America _____ suggests _____ that the magnetic pole has migrated somewhat over the last several hundred million years.
61. Sugar remains the chief product and chief export of Cuba, despite government attempts to _____ diversify _____ the economy.
62. Our new marketing strategy will _____ incorporate _____ both Internet and e-mail advertising.
63. Scientists are looking at ways of _____ generating _____ power using the action of the ocean's tides.
64. I wasn't sure how many people would be coming to the company barbeque, so I just _____ approximated _____.
65. The _____ suggestion _____ that children are superior to adults in language learning because their brains are more flexible is a myth.
66. The transportation system of Vancouver _____ incorporates _____ gas-powered buses, electric buses, sea buses, and light rapid-transit trains.
67. The students were asked to _____ construct _____ arguments both for and against the topic for the debate.
68. I'm not really interested in history, but the lecture was quite interesting _____ nevertheless _____.
69. Most of the power _____ generated _____ by the dam will be sold to the northern American states.
70. Our society today is quite culturally _____ diverse _____, with immigrants from all over the world.
71. In this program, the different language skills are _____ integrated _____ and are presented together, rather than as separate courses studied individually.
72. Can you give me an _____ approximate _____ number of the people you're expecting at the event?

accumulate capacity consume indicate initiate issue potential
significant similar subsidy

73. You need to consume a lot more calories than you normally do each day if you want to gain weight.
74. Advanced education is heavily subsidized in Singapore, with the government paying up to 90% of university tuition fees.
75. Trust is an important indicator in any relationship because it brings stability and security.
76. Physical health is sometimes indicative of one's mental state.
77. This new company has the potential to become very profitable in the next year.
78. The company received a large subsidy from the government in return for a guarantee to create at least 100 permanent jobs in the city.
79. Until recently, mankind seemed to believe that the potential for growth on this planet was unlimited.
80. Indoor air pollution is caused by an accumulation of contaminants that come largely from inside the building, although some originate outdoors.
81. The goal of our initial meeting is to simply get to know each other.
82. The culture of the United States is quite similar to that of Canada.
83. The low number of people attending the lecture is a clear indication of lack of interest in the topic.
84. Studies show that violent crime rates are significantly higher in the U.S. than in Canada, with evidence that this gap is widening.
85. Scientists are only beginning to recognize the potential benefits of using ocean tides as a source of endless, clean energy.
86. Evidence indicates that cucumbers have been cultivated in western Asia for about 3,000 years.

adapt **as a result** **assist** **claim** **community**
despite **discuss** **instance** **refer**

87. Henrik has been able to survive in this business simply because he is so _____ adaptable _____; as things change, he changes with them.
88. Voltaire considered Shakespeare's works so bad that he _____ referred _____ to him as "that drunken fool."
89. A report in 1990 _____ claimed _____ that 40% of Guatemala's forest cover had been lost since 1960.
90. The article you are about to read _____ discussed _____ different ways of reviewing vocabulary.
91. If you need any help, with your grammar homework for _____ instance _____, don't be afraid to ask for assistance.
92. Many people living in large cities develop health problems _____ as a result _____ of the air pollution there.
93. The majority of cars built in Brazil are _____ adapted _____ to use alcohol as fuel.
94. If I can _____ assist _____ you in any way, please let me know.
95. Seven million people living in southern Africa are in immediate need of food _____ assistance _____.
96. The President has laughed at _____ claims _____ that he has a drinking problem.
97. Animals that live in the desert have evolved wonderful systems of _____ adaptation _____ to this severe environment.
98. She was _____ assisted _____ in her studies by a large grant from the university.
99. Living in a housing co-op helps people develop a real sense of _____ community _____.
100. _____ despite _____ its large size, the grizzly bear is amazingly fast, reaching speeds of over 60 kilometres per hour.

argue **concentrate** **decade** **further** **primary**
propose **specific** **symbol** **temporary** **widespread**

101. The government is _____ proposing _____ legislation that would require tobacco companies to pay for advertising to discourage people from smoking.
102. The 1960s were considered to be a _____ decade _____ of great change in our culture.
103. She came up with a very interesting _____ argument _____ at this morning's meeting.
104. Pesticides tend to become _____ concentrated _____ as they make their way through the food chain.
105. The bike path is closed for a _____ temporary _____ period so that repairs can be made to the asphalt.
106. Support for the Opposition party has become _____ widespread _____ because of recent government scandals.
107. It is _____ arguable _____ as to who has more power over the direction of the Canadian economy, the Prime Minister of Canada or the President of the U.S.A.
108. It is our ability to _____ further _____ represent ourselves, ideas, and objects that makes us human.
109. Scientists have _____ proposed _____ many different hypotheses to explain worldwide temperature changes.
110. Do not use ice on a burn because it may _____ further _____ damage the injured skin.
111. Indoor air pollution is caused by an accumulation of contaminants that come _____ primarily _____ from inside the building, although some originate outdoors.
112. Tooth pain may go away _____ temporarily _____, but the problem will not go away until it is treated.
113. This is the first time that a political party has done advertising _____ primarily _____ aimed at minority voters.
114. Is it acceptable to put animals through agony in order to _____ further _____ scientific knowledge?

Appendix D: Consent Form

Information letter and consent form for student participants

This letter provides further details about a research project related to your participation in the iEAP program this summer. It describes your rights as a participant, and it includes the written consent we ask you to leave with us. The research component has been approved by the Conjoint Faculties Research Ethics Board.

We know that each year hundreds and hundreds of students like you are admitted to the University of Calgary. From previous work, we know that you are smart, hardworking, disciplined and committed to your studies. The vast majority of you will complete your degree requirements. However, we know that the road ahead holds challenges for you, and we think they are related to English language proficiency: in other words, your vocabulary level, your reading comprehension and your academic writing. The iEAP project has been designed with these considerations in mind. iEAP should ‘boost’ your general reading abilities and begin to introduce you to the reading and writing demands of engineering, sciences and humanities, and business. The readings and the projects have been developed to support accelerated academic literacy development and we think you’ll have fun doing so at the same time!

Your participation in the research related to iEAP will not require anything in addition to what you are being asked to do for the course, with the exception of being involved in some group discussions and interviews after the course is over and ongoing access to your university transcripts over time.

Here’s what we need from you if you decide to participate in the research:

- 1) Confirmation of your Math 30 and English 30-1 diploma exam mark and the subscores (you can obtain these from the high school you attend).
- 2) A writing sample that will be completed here as a routine part of this course at the beginning and upon completion of this course
- 3) A reading and vocabulary score (from the Gates MacGinitie), that will also be completed as a routine part of this course at the beginning and at the end.
- 4) Access to regular and ongoing class assignments that will be filed in your portfolio. We will assemble what we need at the end of the course.
- 5) Access to your academic transcripts in first year university to track your progress next year (and beyond).
- 6) Participation in focus group discussions and a (taped) interview after the class is completed. These will be scheduled during the fall term.

Two focus group discussions will be held, each of about one hour. These involve informal small group discussions with iEAP classmates who are also participating in this research on general topics related to your experiences in iEAP and its usefulness in preparing you for your university studies. The nature of focus groups discussions limit anonymity since we cannot control what participants might say outside of the group. In addition, we will conduct one individual, taped interview of about 30 – 45 minutes. The goal is to glean more detailed, fine grained insights into your transition to university life, its academic and personal demands, the challenges these place on you and your confidence in facing them having participating in iEAP.

Only myself and my research team will have access to this information after the course is over and pass/fail for the course has been assigned by your instructor. Graduate student researchers, who will have access to data for their thesis projects may be added to the research team in the future.

Data from this project will then be securely stored in the 7th floor research area that is always locked, and in compliance with the University of Calgary ethics guidelines, we assure you anonymity and confidentiality in any reporting and dissemination of the research findings. We will report findings in aggregate form and the use of a participant-created pseudonym. The data will be kept until the end of our project cycle in 2014, and then destroyed.

Measures are taken to ensure that your teacher, Brianna Hilman, will not know who in the class is participating in the research. Participating, therefore, has no consequence in your day to day classroom work, or your final pass/fail evaluation. Please note that participation in this research study is absolutely voluntary and is not a requirement of your continued participation in the iEAP program. I and/or the research assistant will attend your class from time to time to observe student-teacher interactions and group dynamics, for example, but again, your teacher will not know the identity of individuals in the class who are participants in this research.

Non-participation or withdrawal will have no effect on your continuing relationship with the University of Calgary. If you decide that you wish to withdraw from the research study, you may do so at any time. You can reach me at 403-220-6442 or by email at hroessin@ucalgary.ca. My office is on the 7th floor (Room 710). Please feel free to drop by anytime with questions or concerns, or just to let me know how things are going. Should you decide you want to withdraw, just contact me by phone, email, or come and see me. Your data will be promptly withdrawn from the study.

Your contribution by participating will provide insights that will be invaluable to students who, like you face challenges in developing academic English. Faculty members at the University will also benefit from what we learn from this project. We hope that our research will result in various types of program supports and services in the future that will make the journey through university less of a struggle. We want to work with Faculty across campus to help them understand and respond to the language learning needs of students as they teach their discipline area content. If you are interested in feedback on any aspect of the project, just let us know and we'll spend time with you.

This copy of the letter is for you to keep. We will file the original with your signature as an indication that you have understood and agree to the conditions of our study and that you consent to participate in this research. Check either 'yes' or 'no' below and use (and seal) the envelop provided to indicate your desire to participate in the research project. Please feel free to contact us if you have any questions about the research, or if you would like to talk about your results. You should also feel free to contact Mr. Russell Burrows (rburrows@ucalgary.ca or 220-3782) in the Research Services Office, University of Calgary if you have any questions or concerns about this research project. Thank you.

Hetty Roessingh, PhD
Professor, Education

Student information

Name (please print) _____

I consent to participating in this research project: _____ **YES** _____ **NO**

Phone number: _____ **Cell:** _____ **Email:** _____

Date of birth: _____ **U of C ID#** _____

Signature _____

Parent's signature (if under the age of 18) _____

Appendix E: EWT Assessors' Guide

Assessors' Guide for the Effective Writing Test

January 2003

Each Effective Writing Test (EWT) is assessed independently by two markers; in the case of a disagreement (i.e., one marker passes a paper while the other fails it), a third marker assesses the paper. *Note: please refer to the sample assessment sheet on the next page.*

Complete the assessment sheets as follows:

- **Assigned Test Number:** Transfer the number from the top right hand corner of the test sheet to this blank. This number is used by support staff for cross-checking purposes.
- **Student I.D. Number:** Transfer the I.D. number from the test booklet cover.
- **Assessor:** Write your initials here.
- **Question Answered:** Indicate the number of the test question answered. Occasionally we use this information to determine which questions are most or least often answered and which ones lead to a higher pass rate.
- **Grade:** After marking the paper, circle the grade that reflects your overall assessment of the paper:
 S = Satisfactory
 MS = Marginally Satisfactory
 MU = Marginally Unsatisfactory
 U = Unsatisfactory
- **ESL:** Place a check here if it appears that the student's first language is not English. Frequent errors in article and preposition use (GR1s), verb forms (GR5s) and subject-verb agreement (GR7s) often indicate ESL writing.
- **Comments:** Do not write any comments on the paper itself. On the assessment sheet, include comments to elaborate your assessment, particularly if they might be helpful to a third assessor or to a tutor reviewing the paper with a student. In particular, use the comments space to justify final assessments that deviate from the formula below.

Because students may see your comments, avoid writing anything that might offend the writer or that might make an interview uncomfortable.

- **MS for Scattered Errors:** Fill in this circle if the paper does not clearly fail in any one category but you believe the paper does not deserve an S (Satisfactory) grade.
- **Special Assessment:** Fill in this circle if, for any reason, you feel that you cannot objectively assess the paper and wish the director or another marker to look at it. Special assessment is seldom requested, but circumstances such as the following may warrant it:
 - the approach or content is threatening or so bizarre or offensive that it warrants special treatment;
 - the writer appears to be suicidal;
 - the writing has merit but the approach is highly unusual (e.g., the essay is in the form of a story);
 - you recognize the writer and do not feel that you can do an unbiased assessment.

First Assessment:

When doing a first assessment, complete the yellow assessment sheet but make no marks on the paper itself. The first marking is generally holistic, although some markers prefer to leave tracks on the assessment sheet by filling in the circles for errors in the appropriate categories (see below). Others fill in error circles only until they get the feel of the paper. The only requirement is that you provide the grounds for your overall assessment of MS, MU, or U papers either by filling in error circles or by providing written comments on the assessment sheet.

Second Assessment:

When doing a second assessment, complete the pink assessment sheet and use the *Detailed Marking Code* to indicate errors on the paper itself. Please use pencil: the third assessor or interviewer may want to adjust some of your detailed marking.

When marking errors on the paper, you can note errors which are more or less forgivable by indicating the error code within parentheses; such errors are not marked on the assessment sheet and are not counted, but flagging them may be useful to an interviewer. Repeated instances of exactly the same error (e.g., the same misspelling) are only counted once (or twice), though repeated instances of the same type of error are counted each time they occur.

Determine whether a paper passes, half-fails, or fails in each category according to the following formulas. Keep in mind that this provides only a rough guideline; a certain amount of subjectivity is necessarily involved in assessment. For example 6 to 8 errors in the grammar section would normally suggest a fail in that section according to the guidelines. However, if the errors are mainly of the same relatively minor type, omitted articles for example, a half-fail would probably be more appropriate.

Content:

Writers are not expected to demonstrate detailed knowledge of a topic, nor are they required to display originality in their response to a test question. Because the test questions have no right answer, content is judged on the basis of whether an essay addresses a topic adequately.

Typical problems in this category include inadequate development because of insufficient length, excessive repetition of ideas, or a lack of supporting details and discussion. Logical flaws in the argument are also considered content problems. Finally, an essay's content is faulted if an entire essay, or a significant portion of it, does not relate clearly to the chosen topic.

Assessment guide: 3 or more errors = fail
 2 errors = half-fail

There are a few fairly frequent exceptions to these guidelines. If the paper is significantly too short, under 200 words for example, the entire paper fails. Between about 200 and 300 words, a paper would normally fail, but you should take into consideration the overall quality of the paper; a beautifully written paper close to 300 words could demonstrate the competence we are looking for. Papers between 300 and 400 words may be failed in Content, which may tip a paper towards failure overall. If a paper is completely off topic or appears to be a canned essay prepared for another purpose, the entire paper fails.

C3 is an often overused code. Avoid using it for unsupported generalizations. Remember that students may resort to using generalizations when they are writing under pressure.

Structure:

This category refers to the organization of an essay into a comprehensible whole. No standard form is required, but the essay must have an organizing idea and coherence and unity in the presentation of supporting arguments. Errors in this category include an unclear thesis, poor transitions between ideas, and a weak introduction or conclusion.

Assessment guide: 3 or more errors = fail
 2 errors = half-fail

Paragraphs:

Paragraphs are assessed in terms of whether the writer has maintained focus on the organizing idea of the paragraph, expressed ideas in a coherent order with clear relationships among the sentences, and developed the paragraph sufficiently to make its point. All paragraphs need not have a topic sentence, although, of course, that technique is recognized as one valid way of constructing a paragraph.

Assessment guide: 3 or more errors = fail
 2 errors = half-fail

Sentences:

The principal sentence errors include sentence fragments, comma splices, fused or run-on sentences, mixed constructions, faulty parallelism, dangling modifiers, misplaced sentence elements, and inappropriate shifts of number, person, tense, mood, and voice. Illogical or unclear sentences are also considered errors in this category.

Assessment guide: 6 to 8 or more errors = fail
 3 to 5 errors = half-fail

The seriousness of the errors plays a significant role in assessing this category. For example, four very convoluted or incomprehensible sentences might warrant a full-fail, while four relatively minor shifts of person (e.g., SE9s) would not.

Note that not all uses of “you” warrant an SE9 and that a string of sentences consistently using “you” should get only one SE9. Consider the following examples:

- (1) “If a person wants to save the planet, you should recycle”
 – The jarring shift here clearly warrants an SE9;
- (2) “If you want to save the planet, you should recycle”
 – An SE9 is not warranted here since the generalization could apply to all readers, including the marker;
- (3) “Parents should avoid spanking. When you hit children, they learn that . . .” – Mark this minor violation as an SE9.

SE13 can be used when a sentence just doesn’t make sense. However, rather than overuse SE13 as a blanket code for all awkward or fuzzy sentences, it’s generally better to try to isolate specifically what is wrong with a sentence. Nevertheless, if you find yourself flagging three or four W1s in a sentence, it’s preferable to code the sentence SE13 instead.

Grammar:

This category covers all accepted violations of English grammar, including incorrect tense, verb form, or part of speech and incorrect agreement of subject and verb, pronoun and antecedent, and demonstrative adjective and noun. Errors in article use, prepositions, word order, idiom, and usage are also noted; however, these violations are considered to be more minor problems.

Assessment guide: 6 to 8 or more errors = fail
 3 to 5 errors = half-fail

Note that misuses of *they*, *their*, or *them* with a singular antecedent (e.g., someone, everyone, a student, etc.) should be considered minor errors, as accepted usage on this point is shifting. After marking such errors once or twice, flag further instances within parentheses.

Words:

Misused words, invented words, wordiness, and inappropriate diction are all considered errors in this category. Markers are more interested in the accurate use of words than in a broad and impressive vocabulary.

Assessment guide: 6 to 8 or more errors = fail
 3 to 5 errors = half-fail

W2s indicate redundancy. If a syntactic error results from extra words, use SE5 or another SE (or GR) category. As elsewhere, judgement plays a role in assessing this category. For example, three instances of mild redundancy would not warrant a half-fail in this category.

Spelling & Punctuation: This category covers misspellings, homonym errors, capitalization errors, and missing or misused apostrophes and marks of punctuation, including hyphens.

Assessment guide: 8 to 10 or more errors = fail
 4 to 7 errors = half-fail

Errors in these categories are considered together, and more serious errors (e.g., SP1s, SP2s, PU2s, & PU11s) should carry more weight in the assessment than relatively minor errors such as omitted commas after introductory phrases.

Overall Assessment:

After considering an essay's relative strengths and weaknesses in each of the seven categories, markers assign a grade to the essay as a whole. Although all errors in an essay are marked and recorded, the actual number of errors in an essay does not determine whether it passes or fails; more important than the sheer number of errors are the seriousness and the range of errors in each category.

In determining whether an essay demonstrates writing competence at the university entrance-level, markers should take into account the fact that long, ambitious essays—ones that attempt a complicated argument and use sophisticated vocabulary and sentence structure—may contain more errors than essays that are short and unambitious in terms of content development and expression.

- S = Failure in less than one category
- MS = Failure in 1 or 1 ½ categories or scattered errors in several categories
- MU = Failure in 2 or 2 ½ categories—including at least one full-fail category
- U = Failure in 3 or more categories or insufficient length to judge writing ability

If you feel compelled to override these guidelines, do so; for example, an accumulation of serious errors in a single category may lead you to fail a paper. In borderline cases, it may be helpful to ask yourself whether the student's professors would be tempted to inquire how the student managed to pass the EWT. In all cases in which you overrule the guidelines, justify your decision in the comments box. This helps to keep subjective judgements from sliding into the realm of the arbitrary.

Don't avoid awarding an S simply because you feel you may have missed something or because you don't think that the writer has demonstrated intellectual maturity. We are not assessing intellectual maturity here; we are only trying to assess whether a student has the basic writing skills necessary to undertake university-level work. It is also useful to remember that you will likely be interviewing writers of MS papers, and it can be awkward to explain to students why a few very minor errors led to an assessment of "marginal."

Generally, a student whose paper is given a failing grade (MU or U) has serious problems with several elements of composition and is not adequately prepared for university-level written work. In determining whether to fail a paper, keep in mind the potentially very serious consequences to students failing. Students must pay \$50 each time they write the test, which is a real burden for students on tight budgets. More importantly, students who have not passed the test or otherwise completed the requirement within a year are not allowed to continue studies at the University of Calgary. In other words, your assessment of a paper may have lifelong consequences for the student.

Appendix F: Writing Sample Test Prompts

iEAP – Writing a Persuasive Report

You are a member of the Citizens' Coalition for a Greener Province, which promotes environmental protection in Alberta. You have been asked to write a report on behalf of the coalition to urge your fellow citizens to recognize the amount of CO₂ produced in Canada and Alberta.

Instructions: Write a detailed report aimed at car users, to persuade them to use public transportation.

In your report:

- Outline the situation
- Clearly present your point of view
- Use the graphs to support your point of view

Your report will be evaluated on:

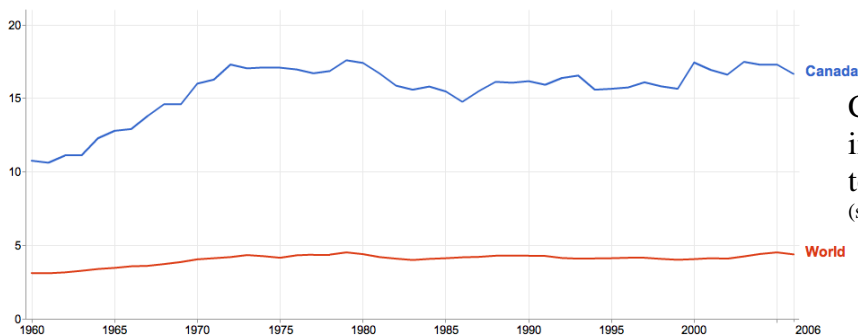
- How you have followed the instructions
- How well your points and ideas are organized
- How accurately you use English grammar, vocabulary, spelling, and punctuation

Your report should be written in paragraphs and be about 400 words long.

You will have 1 hour to complete this task.

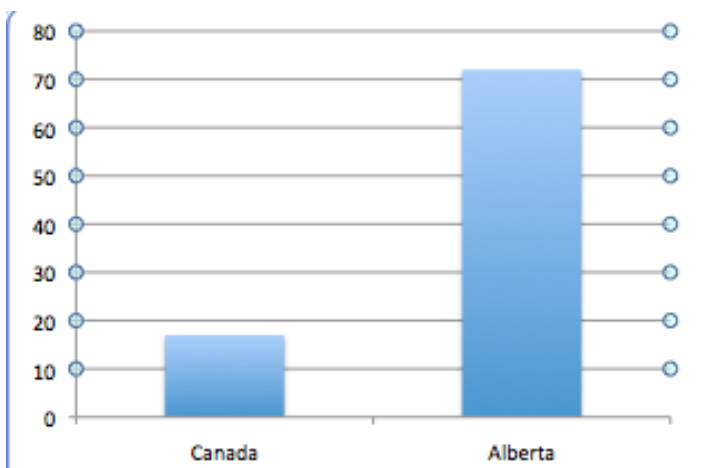
CO₂ emissions per capita

Carbon dioxide emissions in metric tons per capita. [More info »](#)



Data source: [World Bank, World Development Indicators](#) - Last updated June 15, 2010

CO₂ emissions
in metric
tonnes per capita
(source: World Bank)



CO₂ emissions in metric
per capita
(source: Statistics Canada)

iEAP – Writing a Persuasive Report

You are a member of the Citizens' Coalition for a Greener City, which promotes environmental protection in your city. You have been asked to write a report on behalf of the coalition to urge your fellow citizens to use public transportation more regularly. It will be published in your community newsletter.

Instructions: Write a detailed report aimed at car users, to persuade them to use public transportation.

In your report:

- Outline the situation
- Clearly present your point of view
- Use the graphs to support your point of view

Your report will be evaluated on:

- How you have followed the instructions
- How well your points and ideas are organized
- How accurately you use English grammar, vocabulary, spelling, and punctuation

Your report should be written in paragraphs and be about 400 words long.

You will have 1 hour to complete this task.

Figure 1

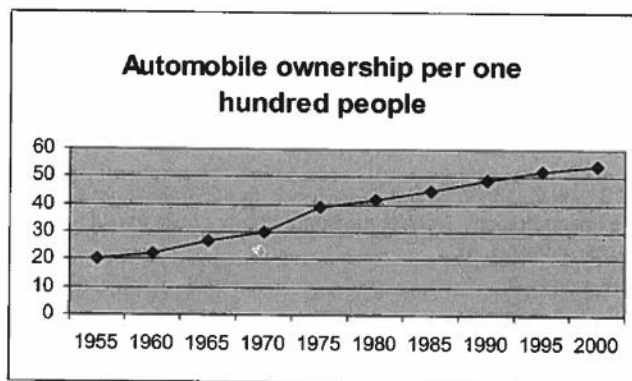
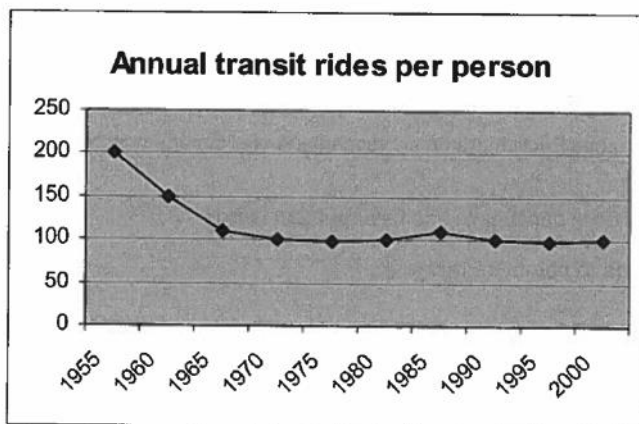


Figure 2



Persuasive Report – Follow Up Sept. 2013

You are a member of the Coalition for a Greener Canada, which promotes environmental protection of the country. You have been asked to write a report on behalf of the coalition to urge individuals to recognize the problems of climate change.

Instructions: Write a detailed report aimed at individuals to persuade them to produce fewer greenhouse gas emissions.

In your report:

Outline the situation

Clearly present your point of view

Use the graphs (source: Statistics Canada) to support your point of view

Your report will be evaluated on:

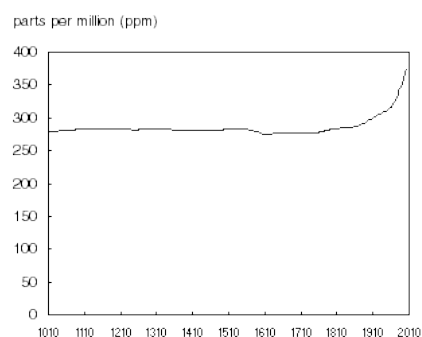
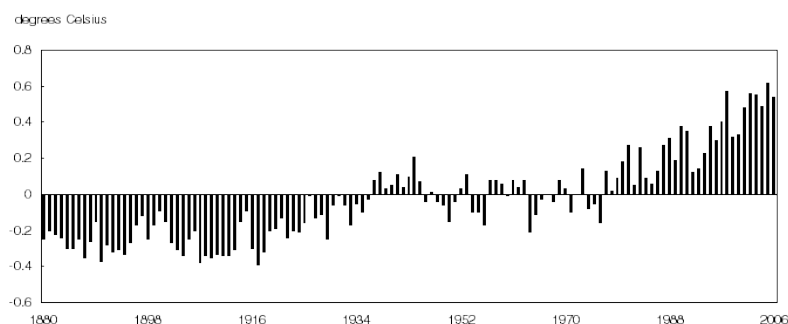
How you have followed the instructions

How well your points and ideas are organized

How accurately you use English grammar, vocabulary, spelling, and punctuation

Your report should be written in paragraphs and be about 400 words long.

You will have 1 hour to complete this task.



Appendix G: Major Assignments

iEAP Writing and Grammar

Assignment One: Research Report

Due July 12th, 2010



In small groups (3-4 people), you will choose a Calgary neighbourhood, do some research on its history and current situation, and write up a report of your findings.

You may choose any area of town to focus on, but you may have better luck finding materials about the older neighbourhoods such as:

Chinatown

Hillhurst

Sunnyside

Victoria Park

Mission

Connaught

Bridgeland

Tuxedo Park

Forest Lawn

Please inform your instructor about neighbourhood choice by Wednesday, July 7th. Each group must choose a different neighbourhood.

From your info session at the Doucette Library, you will get ideas about where you can find and use appropriate research. Your research should focus on primary and academically acceptable sources.

You must use at least 5 sources and make sure they are referenced and cited appropriately.

Please include any images (photos, maps, charts, timelines, etc.) that may be relevant.

Each group member will be given the **same mark** and the report is expected to be consistent and submitted whole (not in pieces).

The report should be approximately 4-5 pages (excluding title page).

Please ensure that you follow the assignment submission checklist.

Look at the following overview of the report requirements and the rubric. As a group, go through it when you edit your report. Fill out the rubric according to your own assessment of your performance.

Parts to include in your report:

Introduction/Overview:

This is a **summary** of the rest of the report. It includes all of the main ideas and findings and gives the reader a good idea about what the report includes. It is usually a good idea to write the introduction last so that it is an accurate reflection of what your report actually includes. Always, however, ensure that it is at the beginning of the report.

Background:

This **introduces** the topic and explains the **reason** for the report. Give background information about the neighbourhood and discuss why you are doing the report and what your focus is.

Discussion:

This is the section that **presents** findings. Charts, data, pictures, details, etc. all go here. For your neighbourhood assignment, you might include photos, population and development information, etc. You may use subheadings to divide up your information here. This section will be the bulk of the report. Make sure that you organize this material in a coherent manner and that references are used appropriately.

Conclusion:

This describes the **major findings** of your report and the key ideas. In this assignment, it will also include **predictions** and **recommendations** for the development of the neighbourhood. Make sure that these predictions and recommendations are based on your findings that are included in this report.

Rubric		Total: /				
	0 – not enough to evaluate	1- poor	2- insufficient	3-sufficient	4- good	5-excellent
Grammar Errors*	Errors make the report unreadable	>7 errors/100 words	6-7 errors/100 words	4-5 errors/100 words	2-3 errors/100 words	Less than 1 error/100 words
Spelling and Punctuation Errors	Errors make the report unreadable	>7 errors/100 words	6-7 errors/100 words	4-5 errors/100 words	2-3 errors/100 words	Less than 1 error/100 words
Word Choice	Word choice is completely inappropriate	No use of academic language. Incorrect word choice	Limited use of academic language. Sometimes inaccurate.	Sufficient use of appropriate academic words. There may be inaccuracy	Word choice is mostly appropriate and academic. No inaccuracies.	Excellent and well-developed academic word choice. Superb and clear word choice.
Word Form**	Word form and usage are completely inappropriate	>7word form errors	6-7 word form errors/100 words	4-5 word form errors/100 words	2-3 word form errors/100 words	Less than one word form error/100 words
Citations and References	Plagiarism is apparent	>5 errors in APA	4-5 errors in APA	2-3 errors in APA	May be one error in APA	Meets or exceeds requirements. No errors in APA.
Fulfilled Requirements	Report is off topic or unrelated to task	Requirements unfulfilled or severely under-developed	Under-development of assignments. Areas may be missing or severely limited.	Sufficiently complete, although some aspects may be limited	Mostly done properly, but one or more areas may lack development	All expectations of assignment are met or exceeded
Academic Expectations ***	More than four academic expectations are not met	Four academic expectations are not met	Three academic expectations are not met	Two academic expectations are not met	One academic expectation is not met	Meets all academic expectations
Appropriate Register****	Register is completely inappropriate and informal	>5 informalities or inappropriate register	4-5 instances of informalities	2-3 instances of informalities	May have one instance of informal language	Appropriate language usage for academic setting
Organization and Coherence (connectors)	Is not in report format	Many problems with organization, causing confusion	Many small or a few severe problems with organization	3-4 minor problems with or progression of ideas	1-2 minor problems with organization or coherence	Excellent organization and clear progression of information
Content	Completely off topic and unclear	Barely on topic and very unclear	Often not clear or not relevant	Not all information is clear or relevant	Mostly on topic and well developed	Excellently presented, clear and topic

Assignment Two: Argument Essay

Due July 19th, 2010

Choose one of the following statements and write 800-1000 word essay (3-4 pages) either **for** or **against** it.

- The city of Calgary should continue to develop its suburbs as developers and home-buyers would like.
- Municipal funds should be used to help maintain heritage buildings in Calgary
- Canada's current immigration policy has negative effects on urban development in Calgary

Essays must:

- Include all process work (brainstorming, planning, first draft, self and peer editing)
- Include completed rubric according to your opinion of your essay
- Follow the guidelines of an argument/opinion essay (including support, counter argument and rebuttal)
- Have a "4S" thesis statement
- Follow the assignment submission checklist
- Include at least 3 citations and references
- Be done individually and completely in the student's own words

Rubric		Total: /				
	0 – not enough to evaluate	1- poor	2- insufficient	3-sufficient	4- good	5-excellent
Grammar Errors*	Errors make the report unreadable	>7 errors/100 words	6-7 errors/100 words	4-5 errors/100 words	2-3 errors/100 words	Less than 1 error/100 words
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Word Form**	Word form and usage are completely inappropriate	>7word form errors	6-7 word form errors/100 words	4-5 word form errors/100 words	2-3 word form errors/100 words	Less than one word form error/100 words
Citations and References	Plagiarism is apparent	>5 errors in APA	4-5 errors in APA	2-3 errors in APA	May be one error in APA	Meets or exceeds requirements. No errors in APA.
Fulfilled Requirements	Report is off topic or unrelated to task	Requirements unfulfilled or severely under-developed	Under-development of assignments. Areas may be missing or severely limited.	Sufficiently complete, although some aspects may be limited	Mostly done properly, but one or more areas may lack development	All expectations of assignment are met or exceeded
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Content	Completely off topic and unclear	Barely on topic and very unclear	Often not clear or not relevant	Not all information is clear or relevant	Mostly on topic and well developed	Excellently presented, clear and topic

iEAP – Writing and Grammar
Lab Report
Assignment 3/4



This assignment will be submitted in two parts.

Part A (Research Proposal)– Due (July 26)

Part B (Lab Report) – Due (August 3)

Part A – Research Proposal:

The City of Calgary wants to fund research that will inform the future development of the city. They have bequeathed a number of grants to the University of Calgary so that research be undertaken. Given your knowledge of urban issues, you are a candidate to receive funding. Look at the following funding opportunities and submit a research proposal outlining how you intend to do your research, why it is necessary and why you should receive the funding.

Choose one of the following funding areas:

- **The Exposure to Air Pollution and Respiratory Illnesses:** What are the levels of specific (focus on only one of these: **particulate matter, ozone, NO₂**) chemicals in Calgary's air? What does this mean for Calgarians? How can these chemicals be reduced?
- **Pedestrian/Cyclist Safety and Traffic Crashes:** How safe is cycling in Calgary? How could the city promote cycling in the city by making it safer?
- **Water Quality:** What chemicals are found in the water in Calgary? The city specifically wants to know more about the **Volatile Organic Substances** found in our drinking water and the levels of **chlorine** added to it.
- **Noise Impacts:** How much noise does Calgary International Airport create? How does this affect Calgarians living in different areas of the city?

To receive funding you must show why the data is necessary. Use information from the background paper *The Built Environment and Health: A Review* to give you information about your topic of interest. You can use the information in the document to give you some background on the subject. Then, using the document's references as a guide, find at least 4 articles about your topic. You should also find one article yourself on this topic using the University of Calgary library databases.

You will be provided with a sample research proposal and guide. Ensure that you use the same template and format for your own proposal.

Part B – Lab Report:

Once you've submitted your research proposal you will receive raw data that relates to your overall topic. To complete your lab report you are to imagine that you and your assistants have

collected this data. Your lab report must follow the given format. Use the sample lab report and in-class work as a guide.

Use proper referencing and citations throughout the entire assignment to avoid plagiarism.

Overall Rubric:

(/40)

	0 – not enough to evaluate	1- poor	2- insufficient	3-sufficient	4- good	5-excellent
Grammar Errors*	Errors make the report unreadable	>7 errors/page	6-7 errors/page	4-5 errors/page	2-3 errors/page	Less than 1 error/page
Spelling and Punctuation Errors	Errors make the report unreadable	>7 errors/page	6-7 errors/page	4-5 errors/page	2-3 errors/page	Less than 1 error/page
Word Choice	Word choice is completely inappropriate throughout	No use of academic language. Incorrect word choice	Limited use of academic language. Sometimes in accurate.	Sufficient use of appropriate academic words. There may be inaccuracy	Word choice is mostly appropriate and academic. No inaccuracies.	Excellent and well-developed academic word choice. Superb and clear word choice.
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Citations and References	Plagiarism is apparent	>5 errors in APA	4-5 errors in APA	2-3 errors in APA	May be one error in APA	Meets or exceeds requirements. No errors in APA.
Academic Expectations ***	More than four academic expectations are not met	Four academic expectations are not met	Three academic expectations are not met	Two academic expectations are not met	One academic expectation is not met	Meets all academic expectations
Appropriate Register****	Register is completely inappropriate and informal	>5 informalities or inappropriate register	4-5 instances of informalities	2-3 instances of informalities	May have one instance of informal language	Appropriate language usage for academic setting
Organization	Is not in correct format	Many problems with organization, causing confusion	Many small or a few severe problems with organization	3-4 minor problems with or progression of ideas	1-2 minor problems with organization or coherence	Excellent organization and clear progression of information

*A grammar error is defined as a problem with verb tense, number (singular/plural), articles, word order, conjugation, active/passive, modals, sentence errors (fragments, comma splices)

** A word form error is a problem with inflection, or word use (i.e. wrong preposition or concordance)

***Academic expectations are outlined in the Assignment Submission Checklist

****Register is the level of formality in writing. In academic writing, a high degree of formality is necessary.

Research Proposal – Fulfilled Requirements (/16)

- ☐ Title gives specific indication of the proposed work
- ☐ Background material leads to a clear statement of the specific goal(s) and hypotheses
- ☐ The questions posed follow logically from previous work in the area of interest
- ☐ The logic behind all hypotheses presented is made clear.
- ☐ All statements are supported by reference, data, or example
- ☐ Proposed methods will address the questions posed, and are designed to distinguish among all alternative hypotheses
- ☐ A rationale is provided for each step proposed
- ☐ Controls for experiments are appropriate and clearly indicated
- ☐ Samples sizes and number of replicates per treatment are indicated
- ☐ Plans for data analysis are clear
- ☐ Each sentence follows from the preceding sentence and leads logically to the one that follows
- ☐ Work has been carefully proofread and revised
- ☐ Citations are provided for every reference cited in the report
- ☐ Each listing in the Literature Cited section includes names of all authors, title of paper, year of publication, volume number, and page numbers, in the correct format
- ☐ Text of report is double-spaced
- ☐ All pages are numbered

Lab Report – Fulfilled Requirements (/14)**Introduction:**

- ☐ Includes question to be answered
- ☐ States hypothesis that is based on research and/or sound reasoning
- ☐ Title is relevant
- ☐ Hypothesis is testable

Methods:

- ☐ A description or step-by-step list of how the research was performed

Results:

- ☐ Results and data are clearly stated, organized so it is easy for the reader to see trends.
- ☐ Significant data is highlighted

Discussion – Analysis:

- ☐ The highlighted data and observations are analyzed accurately
- ☐ Trends are noted
- ☐ Enough data was taken to establish conclusion

Discussion - Conclusion:

- ☐ Summarizes the essential data used to draw conclusions
- ☐ Conclusions follow data (not wild guesses/leaps of logic)
- ☐ Discusses applications of experiment (real world connections)
- ☐ Hypothesis is rejected or accepted based on the data

iEAP – Writing and Grammar
Assignment 5/6

This assignment will be submitted in two parts.

Market Survey Report – Due August 6
 (Oral Presentation – August 6)

Concept Statement – Due August 13
 (Oral Presentation – August 12)



Because of your knowledge of urban issues, as well as some ways that science has impacted these issues, you are in the unique position to become a successful entrepreneur. Some of Calgary's wealthiest residents have recently decided that they would like to invest in new products or services to make the city of Calgary a better place. You are to present your business ideas to these investors in hopes of getting funding.

You may work in a pair or group of three and the team will receive the same mark.

Part One: Market Research Report (4-5 pages)

- Tables and Figures showing primary data
- Analysis of survey data
- conclusions and recommendations
- Appendices with questions used in your survey

Part Two: Concept Statement (5-6 pages) – to be submitted electronically and accompanied by an email cover letter

- formal email
- cover letter (attached)
- concept statement: (attached)
 - Description of Market Need
 - Product/Service that will fill the need
 - Summary of Market Research Report
 - Major competitors
 - Key resources
 - Risks

Use proper referencing and citations throughout the entire assignment to avoid plagiarism.

Overall Rubric:

	0 – not enough to evaluate	1- poor	2- insufficient	3-sufficient	4- good	5-excellent
Grammar Errors*	Errors make the report unreadable	>7 errors	6-7 errors	4-5 errors	2-3 errors	Less than 1 error
Spelling and Punctuation Errors	Errors make the report unreadable	>7 errors	6-7 errors	4-5 errors	2-3 errors	Less than 1 error
Word Choice	Word choice is completely inappropriate throughout	No use of academic language. Incorrect word choice	Limited use of academic language. Sometimes in accurate.	Sufficient use of appropriate academic words. There may be inaccuracy	Word choice is mostly appropriate and academic. No inaccuracies.	Excellent and well-developed academic word choice. Superb and clear word choice.
Word Form**	Word form and usage are completely inappropriate	>7 word form errors	6-7 word form errors	4-5 word form errors	2-3 word form errors	Less than one word form error
Citations and References	Plagiarism is apparent (will receive overall mark of 0)	>5 errors in APA	4-5 errors in APA	2-3 errors in APA	May be one error in APA	Meets or exceeds requirements. No errors in APA.
Academic Expectations ***	More than four academic expectations are not met	Four academic expectations are not met	Three academic expectations are not met	Two academic expectations are not met	One academic expectation is not met	Meets all academic expectations
Appropriate Register****	Register is completely inappropriate and informal	>5 informalities or inappropriate register	4-5 instances of informalities	2-3 instances of informalities	May have one instance of informal language	Appropriate language usage for academic setting
Organization	Is not in correct format	Many problems with organization, causing confusion	Many small or a few severe problems with organization	3-4 minor problems with or progression of ideas	1-2 minor problems with organization or coherence	Excellent organization and clear progression of information

*A grammar error is defined as a problem with verb tense, number(singular/plural), articles, word order, conjugation, active/passive, modals, sentence errors (fragments, comma splices)

** A word form error is a problem with inflection, or word use (i.e. wrong preposition or concordance)

***Academic expectations are outlined in the Assignment Submission Checklist

****Register is the level of formality in writing. In academic writing, a high degree of formality is necessary.

Fulfilled Requirements (See specific assignments)	Report is off topic or unrelated to task	Requirements unfulfilled or severely under-developed	Under-development of assignments. Areas may be missing or severely limited.	Sufficiently complete, although some aspects may be limited	Mostly done properly, but one or more areas may lack development	All expectations of assignment are met or exceeded
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Part One: Market Research Report (4-5 pages)

In order to complete this assignment, you must do the following:

1. **Before August 4:** Choose or invent a product/business that has potential to fill a need of a market in Calgary. Ideally, in addition to this business being economically sustainable, it would also benefit the community in either an environmental or social way – or both.
2. **On August 4:** Plan and carry out market research that would provide evidence that your product/service is needed by a certain market in Calgary.
 - a. determine what information is needed about the market
 - b. create a market survey
 - i. – a list of questions that you will ask 2 different groups of people
 - c. conduct the survey – interview participants to collect data on your target market.
 - d. compile the data and write a Market Research Report (**Draft: Aug 5**)

Fulfilled Requirements

The Market Research Report should include the following (/17):

- ____ Introduction
- ____ Background
- ____ Brief Description of your product and marketing research plan
- ____ Description of market, buyer behaviour in your target demographic
 - ____ Methods
- ____ Briefly describe your survey.
- ____ Refer to the question form in the appendix
- ____
- ____ Results
- ____ Tables and Figures showing primary data
- ____ A text section highlighting the results
- ____ Determine if there are differences between the 2 groups of people
 - ____ Discussion
- ____ Analysis of survey data (discussion of your results)
- ____ Conclusions and recommendations
 - ____ Appendices:
 - ____ The question form used in your survey
 - ____ The raw data from the interviews.

Part Two: Concept Statement (5-6 pages) (/18):

- ____ Title Page
- ____ Description of Market Need –
- ____ demographics (age, sex, family life cycle, income, dollars spent in your industry, etc.)
- ____ Product/Service that will fill the need
- ____ description of product service
- ____ information about the industry
- ____ Evidence that the market wants the product/service
- ____ includes the conclusions of your Market Research Report:
- ____ Major competitors
- ____ number of competitors
- ____ factors affecting competition (qualities or their product/service)
- ____ Key resources
- ____ needed and currently available
- ____ Risks
- ____ financial risks
- ____ anticipated challenges or problems
- ____ Estimate of profits
- ____ References
- **Email: appropriate email text and subject and greetings (email) (1)**
- **Cover letter (1 page) (5):**
 - ____ purpose of correspondence
 - ____ reference to attached document(s)
 - ____ highlight main reasons that support your request (s)
 - ____ appropriate greetings and register
 - ____ appropriate format

Concept Statement submission – Total: 24 marks

Please see the model Concept Statement and cover letter to guide your writing.

Note that the model document does not have a reference list, but you will have to include citations and references in APA format.

iEAP – Writing and Grammar
Vocabulary Usage Quiz 1

Directions: Write a paragraph using at least 20 of the following vocabulary words and transitions from the first two sections of the course.

Choose one of the following topics (you may agree or disagree with the statement):

Because today's Canadian city favours private space over public space, people do not spend enough time interacting with others, causing a number of social problems.

The city should have the right to control where people live, their water usage and how much they drive to protect the city's environment and quality of life.

The city of Calgary should not conserve heritage buildings.

It must be at least one paragraph but can be longer to accommodate the appropriate use of target words. **Target words must be highlighted or underlined by the student**

- You may use any form of the word – i.e. noun, verb, adjective, etc.
- You will be graded on the percent of these target words that you use correctly and naturally. For example, if you make twenty attempts and use 15 correctly you will be awarded a mark of 15/20 (75%) or if you make 100 attempts but only use 14 of them correctly you will be awarded a mark of 14/100 (14%). If you make only 10 attempts and do them all correctly you will be awarded 10/20 (50%).
- To be marked "correct" the word should fit well into the paragraph – not just the sentence.

PLEASE CIRCLE WORDS THAT YOU USE

- | | | | |
|---------------|--------------|-----------------|---------------------|
| Access | • Diversity | • Temporary | • Further |
| • Achieve | • Establish | • Widespread | • Moreover |
| • Adapt | • Facility | • Major | • Likewise |
| • Adjust | • Issue | • As a result | • In other words |
| • Area | • Network | • Therefore | • Whereas |
| • Assist | • Range | • Consequently | • Otherwise |
| • Community | • Element | • For instance | • Nevertheless |
| • Concentrate | • Factor | • In particular | • On the other hand |
| • Decade | • Focus | • Specifically | |
| • Despite | • Contribute | • Indeed | |
| • Subsidized | • Promote | • Primarily | |
| • Initially | | | |

iEAP – Writing and Grammar
Vocabulary Usage Quiz 2

Directions: Write a paragraph using at least 20 of the following vocabulary words and transitions from the first two section of the course.

Choose one of the following topics (you may agree or disagree with the statement):

Human activity and the built environment have a positive effect on the natural environment.

In today's world, the primary emphasis in science should be finding more ecologically sound practices.

It must be at least one paragraph but can be longer to accommodate the appropriate use of target words. **Target words must be highlighted or underlined by the student**

You may use any form of the word – i.e. noun, verb, adjective, etc.

- You will be graded on the percent of these target words that you use correctly and naturally. For example, if you make twenty attempts and use 15 correctly you will be awarded a mark of 15/20 (75%) or if you make 100 attempts but only use 14 of them correctly you will be awarded a mark of 14/100 (14%). If you make only 10 attempts and do them all correctly you will be awarded 10/20 (50%).
- To be marked “correct” the word should fit well into the paragraph – not just the sentence.

- Paragraphs must be legible. **Section 1 Word List:**
(use word family forms as appropriate) Illustrate

Impact	Suggest	Capacity
Occur	Demonstrate	Exceed
Significant	Refer	Approximate
Function	Argue	Convention
Similar	Present	Locate
Potential	Claim	Construct
Contribute	Propose	Transfer
Link	Discuss	Resource
Correspond	Describe	Approach
Research	Demonstrate	Area
Outcome	Equip	Integrate
Indicate	Incorporate	Sustain
Allocate	Generate	Consume

iEAP – Writing and Grammar
Vocabulary Usage Quiz (week 5-6)

Directions: Write a paragraph using at least 20 of the following vocabulary words and transitions from the first two sections of the course.

Choose one of the following topics:

Agree or Disagree with this statement: “It is possible for private enterprise and social/environmental responsibility to co-exist.”

Outline some of the steps that are required before asking people to invest in a new company that benefits society, and/or the environment

PLEASE CIRCLE WORDS THAT YOU USE

- | | |
|--------------|-----------------|
| • accomplish | • footprint |
| • anticipate | • found |
| • assemble | • innovative |
| • biased | • integrity |
| • competent | • intrinsic |
| • complement | • offset |
| • conversely | • perspective |
| • convert | • philanthropy |
| • convince | • pursue |
| • dynamics | • revolutionize |
| • eliminate | • theme |
| • emerge | • trend |
| • emission | • ultimate |
| • ethical | • underlying |
| • evaluate | • unique |
| • expertise | • visual |

iEAP – Oral Communication
Assignment One – In-Class Debate

July 16, 2010



For this assignment you will work in a group to prepare for a parliamentary style debate about an issue facing Calgary.

Motions:

- Ethnic Enclaves – That ethnic shopping and living areas be discouraged
- Growth – That the city of Calgary not be allowed to increase its current footprint

In groups of three or four, you will prepare and research arguments for both sides of the argument. You may select your topic on a first-come first serve basis.

The day of the debate you will draw sides with your opponent team to find out if you are arguing for or against the motion.

Debate Structure:

Team A (for) – Introductory remarks -3 mins
 Team B (against) – Introductory remarks - 3 mins
 Team A – Rebuttal - 2 mins
 Team B – Rebuttal - 2 mins
 Team A – Answer questions (from Team B and audience) – 4 mins
 Team B – Answer questions (from Team A and audience) – 4 mins
 Team A – Closing Remarks – 1 min
 Team B – Closing Remarks – 1 min

Class time will be given the day before the debate for research and planning both sides of the argument

Ten minutes will be given once teams know if they are “for” or “against”

Grading

Name:

Total: /28

Each debater will be given 2 marks, as weighted below: a team mark (the same for all team members) and an individual mark

Team: / 12

	1 - Poor	2 - Developing	3 - Good	4 - Excellent
Team work	Many problems – one or more team members may frequently dominate, interrupt or not participate	One or more team members dominate the debate or do not effectively communicate with team members	Team generally works well together but speaking time may not be divided completely equally	Team works very well together and shares time effectively
Organization	Debate is difficult to follow, illogical and redundant	Debate may lack unity, cohesion, logic or redundancy	Mainly organized arguments, but may at times not flow logically. Repetition may be found	Strong arguments that flow together logically; no redundancy
Content	Little or no evidence or preparing argument. Team members are not aware of responsibilities and are not on topic.	Little evidence of preparation or rehearsal because of a lack of strong argument or strong support	Indications of rehearsal and preparation due to strong argument, but reasons or examples may be lacking	Excellent development of argument through relevant examples and reasons. Strong preparation is apparent

Individual - /16

	1 - Poor	2 - Developing	3 - Good	4 - Excellent
Register	Poor word choice and frequent use of informal or inappropriate language	Frequently informal or inappropriate word choice	Good language use, but may at times be slightly informal	Excellent word choice showing understanding of proper formal language usage
Clarity of speech	Very difficult to understand due to volume, tone, hesitations, speed or pronunciation	Understanding is quite strained due to problems with volume, hesitations, speed, tone or pronunciation	May be one issue with volume, speed, tone, hesitations, or pronunciation that may make understanding strained	Volume, speed and tone make speech pleasant and understanding effortless; no hesitations
Accuracy of speech	Frequent errors in word form and grammar which interfere with understanding	Three or more grammar errors or errors that interfere with understanding	One or two errors with word form or grammar – understanding is not affected	Error-free speech with appropriate linguistic use and choice
Argument	Weak and illogical or erroneous arguments that detract from or contract team's argument	Weak or illogical arguments that do not effectively support team's argument	Good arguments that provide support for team's argument	Strong and logical arguments that strongly support team's argument

iEAP – Oral Communication
Formal Presentation
Assignment 2

Due: July 29, 30 (in class)



You will present your lab report to the class in a short, formal presentation of your findings.

The presentation will be no longer than 5 minutes (or less than 3 minutes). The instructor will set a timer and cut you off at 5 minutes. This will ensure that all students get an opportunity to present during class time.

A good presenter will:

- Use appropriate academic/formal language, but still ensure it is understandable for the audience
- Use visual **support** such as PowerPoint or a handout
- Be dynamic and engage your audience
- Speak clearly and loud enough for those in the back of the room to hear
- Be prepared – don't read out your presentation (although you may use brief notes for support)
- Appear professional – dress appropriately and have good posture
- Be concise and on schedule

Visual support will:

- Support the presentation and not overwhelm it
- Add interest or necessary information, but is not a replacement for what can be explained
- Be concise and to the point (it is difficult for the audience to read and listen at the same time)
- Not be distracting (no unnecessary animation or images)
- Be visually appealing (pleasant fonts and colour choices)
- Be clear and easy to read (appropriate font size and background choices)

	1 - Poor	2 - Developing	3 - Good	4 - Excellent
Register	Poor word choice and frequent use of informal or inappropriate language	Frequently informal or inappropriate word choice	Good language use, but may at times be slightly informal	Excellent word choice showing understanding of proper formal language usage
Clarity of speech	Very difficult to understand due to volume, tone, hesitations, speed or pronunciation	Understanding is quite strained due to problems with volume, hesitations, speed, tone or pronunciation	May be one issue with volume, speed, tone, hesitations, or pronunciation that may make understanding strained	Volume, speed and tone make speech pleasant and understanding effortless; no hesitations
Accuracy of speech	Frequent errors in word form and grammar which interfere with understanding	Three or more grammar errors or errors that interfere with understanding	One or two errors with word form or grammar – understanding is not affected	Error-free speech with appropriate linguistic use and choice
Organization	Debate is difficult to follow, illogical and redundant	Debate may lack unity, cohesion, logic or redundancy	Mainly organized arguments, but may at times not flow logically. Repetition may be found	Strong arguments that flow together logically; no redundancy
Content	Little or no evidence or preparing argument. Team members are not aware of responsibilities and are not on topic.	Little evidence of preparation or rehearsal because of a lack of strong argument or strong support	Indications of rehearsal and preparation due to strong argument, but reasons or examples may be lacking	Excellent development of argument through relevant examples and reasons. Strong preparation is apparent
Visual Support	Visual support is extremely limited, irrelevant and contains errors.	Problems with visual support exist which detract from the presentation. Overuse, errors, irrelevance may distract the audience	Good use of support, but may be overused or have one or two issues.	Excellent. Materials are relevant, clear, minimal, not distracting.
Non-verbal Communication	Speaker does not interact with the audience, is stiff, aggressive or overly awkward.	Problems with body language such as eye contact, movement, hand gestures. Body language interferes with the presentation.	Good use of body language which does not impede communication or detract from the presentation.	Excellent body language, eye contact and audience interaction. The speaker is calm yet formal.

Additional Feedback:

Total: /28

*iEAP – Oral Communication
Assignment 6*

August 12th – Dragons' Den



Presenters:

- You will be presenting to a panel of angel investors who may be willing to invest their own money into your business idea
- Your goal is to convince members of the panel to invest money into your business idea and to provide you with assistance in setting up your business.
 - you are free to be creative in the way you try to sell your business idea to the investors – there is no template to follow.
 - in order to be convincing to the Dragons, you will need to do your homework about every possible aspect of your potential business that the investors might be curious about before they give you their money.
 - Every member of the presentation team should be ready to answer tough questions about their business idea.
- Each member of the group will speak for no longer than 5 minutes (or less than 3 minutes). Thus, the total time for a 2-person group should be between 6-10 minutes.

How the total presentation time is organized is completely up to the group to decide.

Dragons:

- You will be given a certain amount of money at the beginning of the Dragons' Den class.
- You will hear the business pitches, take notes, and prepare questions
 - you will not be allowed to speak during the presentations.
- When the entrepreneurs have finished their presentation, you will be given time to consult with the other dragons and prepare questions
- When all presentations are complete, you will ask the entrepreneurs questions about their business
- At the end of the Dragons' Den session, you will have to decide where to spend your money and provide your reasons.

Dragon's Den Procedure:

1. Presentation 1
2. Dragons' consultation and preparation of questions
 - a. during this time, presenters may listen in on the Dragons' discussions, but they may not - under any circumstances – speak.
3. Presentation 2, 3, ... etc. – (repeat steps 1 & 2)
4. Question Period
 - a. Each presentation team stands in front of the Dragons and takes their questions about their business
5. Decision Time
 - a. each Dragon/presenter decides where they want to spend their money and provides reasons for their investment

A good group presentation will:

- Use appropriate academic/formal language, but still ensure it is understandable for the audience
- Use visual **support** such as PowerPoint or a handout
- Be dynamic and engage your audience
- Speak clearly and loud enough for those in the back of the room to hear
- Be prepared – don't read out your presentation (although you may use brief notes for support)
- Appear professional – dress appropriately and have good posture
- Be concise and on schedule
- Be organized as ONE coherent and cohesive presentation for one group (NOT 2-3 separate presentations)

Visual support for these presentations will:

- Support the presentation and not overwhelm it
- Add interest or necessary information, but is not a replacement for what can be explained
- Be concise and to the point (it is difficult for the audience to read and listen at the same time)
- Not be distracting (no unnecessary animation or images)
- Be visually appealing (pleasant fonts and colour choices)
- Be clear and easy to read (appropriate font size and background choices)
- include tables and/or graphs that most effectively communicate the points you would like to highlight from your data.

Grading

Name:

Total: /30

Each presenter will be given 2 marks, as weighted below: a team mark (the same for all team members) and an individual mark

Team: / 14

	1 - Poor	2 - Developing	3 - Good	4 - Excellent
Team work	Many problems – one or more team members may frequently dominate, interrupt or not participate	One or more team members dominate or have not effectively coordinated the presentation with team members	Team generally works well together but speaking time may not be divided completely equally	Team works very well together and shares time effectively. Transitions between speakers are smooth
Organization	Presentation is difficult to follow, illogical and redundant	Presentation may lack unity, cohesion, logic or redundancy	Mainly organized, but may at times not flow logically. Repetition may be found	Main message points that flow together logically; no redundancy
Content	Little or no evidence or preparing the presentation. Team members are not aware of responsibilities and are not on topic.	Little evidence of preparation or rehearsal because of a lack of strong argument or strong support	Indications of rehearsal and preparation due to strong argument, but reasons or examples may be lacking	Excellent development of argument through relevant examples and reasons. Strong preparation is apparent
Execution	Did not achieve the objectives of the presentation	Achieved the main objectives of the presentation		

Individual - /16

	1 - Poor	2 - Developing	3 - Good	4 - Excellent
Register	Poor word choice and frequent use of informal or inappropriate language	Frequently informal or inappropriate word choice	Good language use, but may at times be slightly informal	Excellent word choice showing understanding of proper formal language usage
Clarity of speech	Very difficult to understand due to volume, tone, hesitations, speed or pronunciation	Understanding is quite strained due to problems with volume, hesitations, speed, tone or pronunciation	May be one issue with volume, speed, tone, hesitations, or pronunciation that may make understanding strained	Volume, speed and tone make speech pleasant and understanding effortless; no hesitations
Accuracy of speech	Frequent errors in word form and grammar which interfere with understanding	Three or more grammar errors or errors that interfere with understanding	One or two errors with word form or grammar – understanding is not affected	Error-free speech with appropriate linguistic use and choice
Argument	Weak and illogical or erroneous arguments that detract from or contradict team's argument	Weak or illogical arguments that do not effectively support team's argument	Good arguments that provide support for team's argument	Strong and logical arguments that strongly support team's argument

Appendix H: Error Codes

#- Number

G-Grammar

P-Punctuation

Sp - Spelling

WF- Word Form

WC-Word Choice

WW- Wrong Word

Appendix I: Transcription Conventions Used (Dubois, 2006)

Du Bois: Representing Discourse

Transcription Symbols by Delicacy: Levels 1–4

MEANING	SYMBOL	COMMENTS
Level 1: Preliminary		
words	word word	space before & after marks boundary (standard orthography)
word sequence	word1 word2	words written in conventional order, e.g. left-right (standard)
speaker change		start new line when new speaker begins speaking
turn sequence		speaker change sequence marks approximate turn sequence
intonation unit		each intonation unit is written on its own line
speaker attribution	JILL;	semicolon follows name in CAPS
Level 2: Basic		
pause, untimed	...	pause lasting 0.2 seconds or more
marginal words		<i>uh, um, mm, unh-unh</i> , etc. (quasi-standard orthography)
laugh	@	one per pulse or particle of laughter
overlap (first set)	[]	align left square brackets vertically
overlap (2nd set)	[₂]	align left brackets, co-indexed with subscript numeral
unit sequence		top-to-bottom page sequence marks intonation unit sequence
unintelligible	###	one symbol per syllable
uncertain	#you're #kidding	transcribed words are uncertain
comment	((WORDS))	analyst comment on any topic
recording source		use comment notation to cite source of recording
conventions		use comment notation to cite transcription conventions used
Level 3: Boundary		
terminative intonation	.	intonational morpheme signaling finality (period)
continuative intonation	,	intonational morpheme signaling continuation (comma)
appeal intonation	?	combines with final/continuing: ?. ?,
truncated intonation unit	—	aborting projected IU (em dash; <i>or</i> two hyphens)
truncated/cut-off word	wor—	aborting projected word (en dash; <i>or</i> hyphen at end of word)
breath (in)	(H)	audible inhalation
exhale	(Hx)	audible exhalation
pause, timed	(1.2)	pause duration in seconds and tenths of seconds
lag/prosodic lengthening	:	colon marks slowing of local tempo, segment lengthening
hold/micropause	..	< 150 milliseconds; brief silence, break in phonation
linking (absence of break)	—	in rapid speech (underscore/low line)
suspended IU	&	use only when 2nd speaker intervenes

Appendix J: iEAP Debate, July 17th, 2010: Transcript

Transcribed by Katherine Crossman

RUDRANI; The topic is whether the city should be allowed to, expand its, um its footprints or not and we are actually for it. We want it to develop as well as it can.

And so nowadays with expanding human population and increasing development of technology, the trends of suburbanization are becoming popular. People want bigger houses and cheaper houses and so they want to go into suburbs. And the main reason is, like, people are having good jobs and all it does is ##### and it's not like people are poor and they don't have houses or anything. They want to, like, get a good price, a good sophisticated place and bigger houses, so yeah and in subur- in addition suburbanization is the cornerstone of ultimate urbanization and therefore the city should be allowed to expand as much as it can.

It should.

SAMAD; So (9.8)

@ @

RUDRANI; You guys want to say something?

MARK; All right, *um* well, it will *um* provide a safer community, *um*, because, *um* there's, *um*, less *uh uh* homeless people in the area. Um also, *um* some criminals *uh* in the downtown area will be going to the urban areas that's *uh* also as mentioned the increasing demands for larger *uh* space. *Uh*, it can, it can have *uh*, a really impact on the economic- economy. The supply demand will help us, *uh* keep the, *uh*, local economy going and the global economy because the oil and *uh* gas industry. So therefore the city should expand due to *uh, uh*, in consider of economy, *um* people's *uh* demand and fulfilling citizens' *uh*, needs.

SARABJIT; Do we still have some time?

INSTRUCTOR; 45 Seconds.

SARABJIT; Ok, *um*, as well, *um*, this is mainly like a big, *uh* thing, like, *uh* the use of fossil fuels. *Um* we need them because we use them for almost everything. *Um*, It's just, *uh*, for to sustain like our way of life, we need to continue like using fossil fuels and *uh* (3.1) (@@) (4.9) *um* and just so we can have a convenient lifestyle.

RUDRANI; yeah, it's.. (13.2)

±TIMER

INSTRUCTOR; Ok, Team B. You've got three minutes.

SAMAD; So the topic is that whether Calgary should not be allowed to so, yeah, we're not allowed to, so the Calgary should not allowed to increase its borders ##

So yeah, so why, so Calgary's economy is booming everybody knows that because of the gas and oil industry, you know and *uh* because of that also the population increases and *uh* with the correct population there is more houses needed there is a need for more houses, but like,

uh, developing suburbs, there's like a negative sides to it because first of all they're far away so you have to drive more, you, so yeah you have to drive more, and you save you you waste gas pretty much so yeah. (2.5)

There's *uh* pollution, increased pollution cause you drive more, the traffic jams especially so yeah. And then so just so the city keeps increasing (*ahem*) so like at some point you will reach the borders of Edmonton and then like all the space between with there's farms and agriculture things you know? They're *uh* they're gonna gone cause of the suburbs right. We need to put the limits for that and (1.2) just *uh* we'll start a new kind of a city plan.

ADNAN; Just about the oil and gas thing. As she said that we have fossil fuels and stuff for our future use but it's like we can't only depend on fossil fuels and stuff. They're like, you know,

they are not, like, renewable resources so we can't just say, like, because we have oil and stuff we can get like more people to come here and work because that, like you know the way it's really getting expensive and stuff so it's like, like. The point is not demand so like the income for country for us so like you expand the city and stuff the borders and stuff you're also like affecting other organisms like wildlife because you expand the city more there's gonna be less farmers, less farm land for farmers and stuff. There's gonna be like shortage of food and stuff too but as the population grows we keep on expanding into farms and stuff there's gonna be like more people but less food as all the farms are like being destroyed, and they are like making more houses and this creates pollution? It affects humans and stuff and also you are destroying wildlife too, so this is like, I think the main reason not expanding Calgary 'cause its interferes with other countries' borders like maybe can goes to Edmonton and stuff and also like as you expand more and more, people are like spreading apart and stuff like there's like there's not going to be any like community. People are going to move apart and stuff. People are hardly going to talk to each other and stuff like it's going to be like everyone going apart and stuff so as more people move apart less people-

± TIMER

INSTRUCTOR; Thank you. So now you've got one minute. All the teams have one minute to think about what you'll say as a rebuttal. Team B will have two minutes to refute first.

(60.0)

RUDRANI; So I caught a point about how you said they'll be traffic jams if the city's expanded. But if there is, if we expand the city the roads are probably going to be bigger how can there be traffic jams if we expand the city? If it's small, then yeah, there might be some problems of traffic on highways and stuff but if it's gonna be bigger then I don't think they should need

traffic jams. And the second, *um*, point was like how he said was that ... people are going to be they are not going to get interacted with each other if they keep on spreading out but there are going to be recreation centres and community centres in each and every area. It's like on Saturdays and Sundays people can like actually go there and meet each other of their culture and their community and stuff. It's not like people are going to be like - oh we don't know who is living in that area. They do know if we have bigger streets and bigger place there's going to be some sort of interaction of people with the recreation centres and community centres. People can like interact, it's not like spreading out and nobody's going to talk to each other.

Yeah.

MARK; *Uh* as on to her well *um* as Team B mentioned there will be less farm land, however, a lot of farm lands in Alberta the increasing expanding of suburbanization there still will have enough farm lands to *um uh* support *uh* Canada and even export to make more money *um* and *uh* suburbanization is not a bad thing because it will because it is the cornerstone of doing the best for the areas. It will create better communities for the next generation who live in there. With *uh uh* with the more dense concentration of population and *uh* producing food nowadays is really *uh-*

±TIMER

INSTRUCTOR; Okay, Group A, you've got two minutes.

DEETA; Ok so if the city will be allowed to expand then there, there will be as they both said less driving hours, less pollution and then Calgary will have a limit to expand, like there will be a limit and if there won't be a limit then, like as she said, how can you know in which neighbourhood people are living? Because usually these days people don't really interact with each other they don't talk to each other 'cause today there are so many immigrants and they

don't really interact with each with each other and if there is a community in a community centre in a neighbourhood who know how many people go there and talk? And if the city will not be that big then *uh* it will be easier to control and *uh* there will be less less crimes and there will be less police to like control the crime and then and then there won't be any, like, as as you know like we talked today about transit stuff right like how they are expanding the transit and so if the city will expand the government has to expand the transit too and, um, (2) it takes so much money to like expand the transit to so that's like the waste of money. And *um*, there are farm lands, as he said that *uh* Canada will survive like there are farmlands in Alberta like but we are not talking about Alberta and Canada, we are talking about Calgary and so that's why we are saying Calgary should not be expanded it should stay in the limits. *Um..* that way there will be better interactions between the community and there will be less suburban areas and yeah, people will be many-

±TIMER

INSTRUCTOR; Ok, we are going to move on. For the next four minutes Team A can answer questions from Team B (1.5). Team B, have you got any questions for them?

SAMAD; Yes I have a question for them. So if we expand in Calgary and obviously it's too expensive to increase all the roads and all that, it's very expensive. Like it's harder as she said for transit and C-train and all that because it's increasing even further and further so like how are you gonna solve this are you just gonna keep expanding?

ADNAN; It's not good transit systems-

DEETA; You also have increase the taxes, right?

SAMAD; Taxes, too, yeah. So like-

SARABJIT; So, *um*, yeah, you guys also believe that using cars is *um* like lots of CO₂ emissions and stuff, right? So then you think about it. Which one is better to take transit or to -

ADNAN; You say cars are-

SARABJIT; Huh?

ADNAN; You say cars are-

SARABJIT; No, no, that's what I'm saying. Cars are not good but if you were to see like well which one well, cars or transit?

DEETA; Transit.

SARABJIT; Well, yeah ###

RUDRANI; [But how can you] say transit is a waste of money? It's not.

ADNAN; It's a waste of money only when you are expanding the city too much.

RUDRANI; Even even even if they expanded it's not people can actually go ###, so many people are traveling around.

ADNAN; The point is-

SAMAD; The point is if you expand more you have to pay more taxes-

ADNAN; Yeah, more taxes

SAMAD; And put more money into the transit which you don't want to do like-

DEETA; If you expand the city you have to expand the transit too because like the transit is coming into Saddleridge because, like a new community, it's just started you have to expand the transit too and I have another question. What if the economy goes down and no one buys the homes? Where do they live? Not on the streets I guess?

RUDRANI; So if they don't buy houses where are they going to live? They are already living, right? They are already living. You guys are buying new house for like because people want more like –

<VOX>

SAMAD; what if there is going to be like another recession? All these people living in the house.

MARK; Living in downtown are, is more expensive than living in suburbs.

SAMAD; Not necessarily, it's *uh* not necessary, you don't have to live downtown, there's other areas in Calgary, you just have to, like -

MARK; It's like increasing expensive houses closer to downtown.

ADNAN; How about the environment? It's going to affect stuff expanding the city. There's more construction, you're making more factories because more workers need to come and stuff the environment pollution all this all the wildlife and stuff all this gets affected by the actions we take to expand the city, so how are we going to solve that problem?

SARABJIT; What about all the people coming in? How are we supposed to provide them with jobs?

RUDRANI; So many people live in basements and they pay high rents only because they can't afford a house. If we expand the city there will be houses for -

SAMAD; How does that, how's that going to fix the environment problem?

RUDRANI; Well the environment problem is if you don't expand it, there is people, there are so many communities where people, where buses and transits are not good enough for people, they are not like, people don't have any ... convenience of going to the transit and buses so they should and eventually they end up getting in their car and you know the problems of the car. We don't need to repeat that.

<VOX>

SARABJIT; Exactly

ADNAN; No no, that's the thing, though. The problem with the cars. We are not saying that the transit system is being improved now here. But if we expand the city, the thing-

SAMAD; People are going, people are gonna have to drive more.

<VOX>

SAMAD; #####

RUDRANI; #####

SARABJIT; So higher taxes. Unfortunately if you live in Calgary you have to like it. If you don't like it., you are still going to have to pay regardless, whether you like it or not.

DEETA; If they don't like it they can't just leave.

SARABJIT; Yeah, they can.

DEETA; They won't buy the houses then @@

SAMAD; Yeah, exactly.

RUDRANI; They are not like gonna, like, *uh*, like .. an old house. People do need something to rely on.

<VOX>

SARABJIT; More and more people are going to come in if these people leave then someone else will come and purchase a home.

±TIMER

INSTRUCTOR; Ok, Thank you. Group B will answer any questions. 4 minutes.

SARABJIT; Ok, so you guys are against cars, you guys are against, *um* transit. How are people supposed to get around?

SAMAD; We're not against the transit, we're -

DEETA; No no no we are not against that we just say if you expand the city you have to expand the transit-

SAMAD; However, if the city is going to have limits, there's gonna be more transit because it improves every year. There's more buses, more C-trains, so there's *uh*, you can like, there's gonna be C-trains for everywhere to like any part of the city.

ADNAN; ... you're moving farther and farther apart

SAMAD; It's easier for you to use the transit, there's less need to use car. So that's...

SARABJIT; But what about all the people coming in? Like -

RUDRANI; Where are they going to fit?

SARABJIT; Yeah, like more and more are coming in you're gonna you are gonna have to expand the city.

SAMAD; No you don't. Because the economy sometime is gonna slow down. The oil and the sand, the oil sands or whatever they're not gonna be forever.

SARABJIT; It's a cycle, though. Eventually it's going to start improving -

ADNAN; This is the population around 2050 will decrease. The population not - immigrants are not going to keep coming. I read that on internet and, like *uh*, honest it says the population of Canada is gonna decrease instead of increase

<VOX>

RUDRANI; We didn't know about that. You need to give references.

SAMAD; #####

DEETA; And and you think about the people who have been living in Calgary for so many years and all the people who are coming they can maybe, like, you if the main thing is the people

living in Calgary they have been living here for so many years they are more important than the people who are -

SARABJIT+RUDRANI; [no, you can't say that. You can't say that].

MARK; For thousand years throughout the history the city is expanding regardless of *uh* the population. The population is increasing decreasing here all the time. However, *um*, there's there isn't any *uh* empirical evidence that there's *uh uh* really harms on the world history on the expanding of the *uh* population even though with the technology with cars, we have electric, electrical cars that runs on electricity. Now they have flying cars which is faster than train and everything

<VOX>

DEETA; We don't have that in Canada-

SAMAD; That's so far future. We are talking that. We are talking about now. What we mean, if we limit, there's going to be more sustainability... Kinda they are going to think about environment more they're gonna don't drive and use transit and with everything there's gonna be electric cars. It's a, it's a progress. It's not going to be like ##### for sure in fifty years, however -

MARK; Larger cities are more sustainable throughout the world-

ADNAN- ###

MARK; Of course you can not expanding. There is limit space, but however

ADNAN; If we expand as much as, because at the beginning she said

SAMAD; [#####]

MARK; Ok, uh, I'm not arguing with, uh, ourselves, I'm saying ... I'm saying that expanding is not a bad thing. We are talking about whether expanding or not, we're not talking about if -

DEETA; You agreed that there should be a limit? You agree that?

MARK; Well...

RUDRANI; There should not be a limit

ADNAN; Why not?

DEETA; What she's saying

SARABJIT; So we can expand up until Edmonton?

SAMAD; No that's, that's-

DEETA; We can't do that. It will be like Edmonton-Calgary, like the whole name?

MARK; There will be more direction-

ADNAN; You can't control it. If you keep on expanding and expanding it's gonna be like uncontrolled

SAMAD; Exactly. There's gonna be more crimes. More crimes, more police, more police, more taxes –

SARABJIT; But more jobs.

RUDRANI; Yeah.

SARABJIT; With all of the people coming in

RUDRANI; [coming in]-

SAMAD; First of all, you can have jobs, whatever. We talk about the housings and the suburbs, you can't have jobs, you can build high tall buildings –

±TIMER

INSTRUCTOR; Ok, thank you. You've got one minute to prepare your closing remarks, and then one minute to present them.

(60.0)

INSTRUCTOR; Okay, now. Team A, you have one minute for your closing remarks. Please begin.

ANDREW; (reading) *Um*, Although , the continue of ###some ## for the sake of our people we have to continue increasing. Jobs are going to be ##lifestyle##### production of housing ## so it can provide more jobs. And if we limit and then it also limit to the jobs ... then the unemployment will be increased. (5.2)

MARK; Ok, *um*. Well with with the argument, *um*, *um*, based on, on the arguments, it's.. even thought it might damage the environment, however it's the cornerstone of making urbanization which eventually becomes what you guys saying –

±TIMER

MARK; is better

INSTRUCTOR; Thank you Team A. Team B, you've got one minute.

DEETA; Ok, so finally the reasons why the Calg- the city of Calgary should not be allowed to increase its current footprints are, as we mentioned, less ###, less ##### across the borders of Edmonton, and .. *uh*.. less farmers, like, there will be more farms, and-

SAMAD; And also there, there's gonna be more like, kind of like a community sense between the housings or neighbourhood. And *uh*, there's gonna be –

ADNAN; (WHISPERS/SAMAD)

DEETA; And if you have less, you will be able to control it better than if you have more and less and best.

SAMAD; and because it's gonna be more control there's going to be less crimes, so.. yeah, and.. therefore that's

DEETA; The community will be better and like healthy and –

ADNAN; ###

DEETA; Help each other

ADNAN; Good environment not expanding more and stuff, so

±TIMER

INSTRUCTOR; Thank you.

Appendix K: Follow-up Interview Questions and Post-Program Evaluation Survey

iEAP – Follow-up Interview Questions

[Confirm pre-program demographics]

What are your goals for the rest of university?

What are your long term goals (what would you like to do when you finish school)?

How many courses have you enrolled in/completed so far at university?

What courses have been the easiest? Why?

What courses have been the most challenging? Why?

What have been the greatest challenges you have faced in university?

What aspects of university life and/or study were most surprising for you?

In what ways do you think you were well prepared for university by your school?

By iEAP?

In what ways do you think you were ill prepared for university by your school?

By iEAP?

Looking back on your time in university, is there anything you wish you had known before you arrived?

Rate the level of difficulty you have had with the following aspects of university (1=extremely easy, 2= easy, 3=not easy, but not too difficult, 4= slightly difficult, 5=difficult, 6=extremely difficult)

Keeping up with reading	1	2	3	4	5	6
Understanding reading	1	2	3	4	5	6
Understanding lectures	1	2	3	4	5	6
Time management	1	2	3	4	5	6
Keeping up with course loads	1	2	3	4	5	6
Completing assignments	1	2	3	4	5	6
Taking exams	1	2	3	4	5	6
Understanding requirements	1	2	3	4	5	6
Giving presentations	1	2	3	4	5	6
Group work	1	2	3	4	5	6
Independent study	1	2	3	4	5	6

What do your parents do? What is their level of education? Siblings?
Please add any comments:

iEAP Post-Program Evaluation
(August, 2011)

Name: _____

iEAP post-Program Evaluation/Survey
(All information will be kept confidential)

• For questions **1 to 20**, please indicate your agreement or disagreement with the given statement:

- 1. Very much disagree**
- 2. Disagree**
- 3. Slightly disagree**
- 4. Slightly agree**
- 5. Agree**
- 6. Very much agree**

My English and the Course		Very much disagree	Disagree	Slightly disagree	Slightly agree	Agree	Very much agree
1	the course was too easy for me	1	2	3	4	5	6
2	I found the videos / lectures / listenings too difficult	1	2	3	4	5	6
3	I found the readings too difficult	1	2	3	4	5	6
4	The course outline provided me with the study goals for the term	1	2	3	4	5	6
5	I recognized the importance of reading the course outline	1	2	3	4	5	6
6	The assignment directions were clear	1	2	3	4	5	6
7	I found the guest speakers too difficult	1	2	3	4	5	6
8	I used the information from the field trip in my writing or presentation	1	2	3	4	5	6
9	I found the course material challenging and engaging	1	2	3	4	5	6

My Instructor		Very much disagree	Disagree	Slightly disagree	Slightly agree	Agree	Very much agree
10	The course was delivered according to the course outline	1	2	3	4	5	6
11	the course materials was presented in a well organized manner	1	2	3	4	5	6
12	My instructor provided me with feedback	1	2	3	4	5	6
13	Instructor was useful in helping me understand the quality of my work	1	2	3	4	5	6
14	My questions were responded to appropriately	1	2	3	4	5	6
15	My work was graded in a reasonable amount of time	1	2	3	4	5	6
16	My instructors method for determining the course grade was fair	1	2	3	4	5	6
17	I was treated respectfully	1	2	3	4	5	6
18	I identified my weaknesses through this course	1	2	3	4	5	6
19	I improved my skills through this course	1	2	3	4	5	6
20	Overall, I benefitted from this course	1	2	3	4	5	6

1. What were your original reasons for considering this course?
2. How did the course allow you to work on your strengths and weaknesses?
3. What was your favourite in-class activity? Why?
4. What was your least favourite in-class activity? Why?
5. What did you like least about the activities? Please be specific and give as many details as you can.
6. Were you interested in the activities? What kept you interested?
7. Do you have preferences as to the type / topics of the texts that you read and summarized for this course?
8. Did you have any technical difficulties? Explain.
9. Would you recommend this course to your friends? Why or why not?
10. What parts of the course would you keep?
11. What would you change in the course (spend more/less time on, change content)?
12. What parts of the course would you eliminate?
13. What new words did you learn the meaning of / learn to use?
14. What grammar did you learn?

Appendix L: Appendix L: Deeta and Mark – Writing Samples

Deeta, Pre-Writing Sample (July, 2010)

Transportation – public or private?

In today's hard and fast life, transportation is very essential. There are various types of vehicles now days. However, those vehicles affect the environment differently. Some people prefer to use automobiles and some would rather just use public transportation. Automobile includes motorbikes, cars, trucks, and more. Public transportation includes buses, and L.R.T.

Automobiles can harm the environment to greater extent than the public transports. The automobiles are run by things that harm the environment, like petrol, and diesel. The use of petrol and diesel cause a lot of air pollution. This pollution can be very dangerous to those who have some serious allergies, like asthma. A car or a motorbike can carry two to less than eight people, whereas the public transportation can carry a number of people. If ten owners stop using their automobiles and start using the public transportation, the pollution will decrease a lot because ten owners mean more than twenty people who stop using the automobiles.

Since the automobiles are generally fancy and attractive, people decrease the use of public transportation. If we look at the two graphs given, figure one shows how the automobiles owners increased during 1955 to 2000. In contrast to the first figure, the second figure shows how the use of public transportation decreased during the time interval of 1955 to 2000. By observing these two graphs, we can say that as people start owning automobile, they stop using the public transportation. As people start buying cars, for example, the use of public transportation is decreased five times.

Not only pollution, but if you use cars, there are good chances of getting into accidents as well. There are many people who drive cars and you can see the roads full of cars these days. That being said, there are bad drivers too. As a result, if you are driving a car, you are very likely

to get into accidents. Therefore, if we equal ten cars to one bus, there will be ten times less air pollution, ten times less waste of money and perhaps nine times less chances of accidents.

Moreover, the Canadian government collects a good amount of tax from the Canadians. The government is using it very well too. It uses the tax for not only health care and to support poor people, but it also uses it for transportation as far as my knowledge. My point is, if the government uses your money to run the buses, why would you let it run empty and waste your money? If you pay your tax and the government invests it into transportations by creating L.R.T and hundreds of buses, you should definitely take advantages of it because you deserve it. It is your country, your (public) transportation, and your government. You have the right as well as responsibility to save your environment by air pollution, use the public transportation, save your money for your bright future, and save your energy. The automobiles are very expensive as well. People may buy it by borrowing money and getting into debts, but then the use of money after the car continues. You have to fulfill your car with costly petrol, buy tools to take a good care of your car, and also repair it whenever it gets into accidents or it doesn't work properly.

In conclusion, automobiles are not extremely dangerous and inappropriate to use, but once you buy any car or something, it does not mean you stop using the public transportation. Once again, the automobiles are very likely to cause air pollution, very expensive, and accidents, whereas the public transportations are usually safe, secure, and cheaper. It helps not only you, but the whole country. It surely saves your money for your own future and saves the environment for the future generation.

Deeta, Post (Aug, 2010):

Effects of the car and damage to the environment

Today, automobiles are used to a great extent. Most of the time, people prefer to use automobiles which emit highly polluted gases. For example, the emission of CO₂ has become a worldwide problem. That CO₂ deteriorates the environment by creating air pollution.

By looking at both graphs, there is a suggestion that Albertans should lessen the use of cars. Alberta is in Canada and Canada is in the map of the world. Therefore, not only Alberta, but also the whole world should really concentrate on this issue. To decrease the emission of CO₂ is essential because it can lead our green world to death. This emission is not only polluting the environment, but also affecting many people. A specific group of people with breathing diseases, like asthma, are affected extraordinary by this gas. This gas is so influential that so many people die each year. In addition, the CO₂ has a great impact on people's skin because sometimes, people can have skin cancer too. The cars are emitting the hazardous CO₂ gas, which kills people eventually. Therefore, to some extent, those who drive cars could be under the list of murderers. It is not always true because sometimes, people do not know how they are affecting the environment and other people. Moreover, using a car is not at all a bad thing because it helps you get somewhere in harsh weather, but the cars should be used sometimes and not on daily basis. Consequently, if you know that it damages the environment and harms people and you are still using your cars every day without any acceptable reason, then you should definitely think about this issue and lessen the use of car.

There are two graphs that demonstrate what the level of CO₂ is in the whole world, including Canada, and Alberta. The first graph illustrates CO₂ emissions in metric tonnes per capita. The line for Canada has increased from 1960 to 2006. Also, from 1975 to 1980, that line

has peaked from 15 to 20. Conversely, the line which represents the world has almost stayed the same. Nevertheless, it was a bit low during the 1960s, and relatively risen from 1970. After that, it was almost stable. This graph describes that Canada needs to take some actions regarding the emissions of CO₂.

Next, the second graph displays the CO₂ emissions in metric tonnes per capita in Canada and Alberta. In this graph, Alberta has a remarkable boost in the emission of the CO₂. In contrast, Canada's average emission is very low in comparison to Alberta. Alberta peaks just above 70; whereas, Canada peaks just below 20. That is quite a huge difference. This graph encourages not using car frequently as the block illustrating Alberta is excessive.

In conclusion, the use of car should be lessened. If you pay your taxes, then you should certainly use transit. Since a part of your money goes to transit, you should take advantage of it. Cars are way too expensive than transit. Buying a car doesn't finish your duty towards your car, because you have to frequently clean, wash, repair, fill fuel or oil and take care of it, which demand money. On the other hand, transit only requires either bus pass or ticket, which is cheaper unlike cars. Thus, you do not only save your money, but also help the environment and being a good citizen, take care of those who have breathing diseases.

Deeta, Follow-up (Sept, 2013)

In today's fast paced world, many things are ignored, wasted, and destroyed just to make things easier and faster for everyone. Environment is affected the most by this. There are a lot more vehicles on the road now than ever before, which leads to a lot of pollution and breathing problems for many people. Not only the air, but also the water is polluted a lot by some oil and gas companies, who aim to earn more money than the billions that they are already earning. The polluted water kills many fish and other mammals who use those rivers and oceans. Have you ever thought about the food that you eat though? They sometimes lead to deathly diseases. Technology has advanced a lot, which has made the human being less productive and more dependable on technology. The fast paced society, ignorance to many important and time consuming issues have made people forget to take care of the environment.

It seems like the harm on environment is recent. For instance, if you look at the first graph, you will see there the first time it ever happened was in the 1930s. It went up and down for a while until 1970s. However, after that the temperature has constantly gone up. It has never decreased. It shows the failure to take care of the environment by us. The second graph shows how the parts per million was steady up to the end of 1900s, but after that it just went up until now. If we would combine both graphs, it displays the relationship between the technology and environment. As more technology got introduced to human being, the less protective they become towards the environment.

Let us all try saving the environment because if we will continue to misuse the environment, the time will not be far when people will die due to starvation or lack of water and oxygen. It is like

we have happiness distributed equally for everyone, but we just try to steal and use all of it at the same time for oneself. For example, let's say that you are going to get a bonus for the next twelve months from your company. If you would use up all of those twelve months' bonuses in the current month, it will not get you anywhere. In fact, it could lead to some very tragic results. Whereas, if you would use the bonus one month at a time, it will give you satisfaction for current month, a hope and prediction of good future for the next eleven months, plus if you fall into an emergency, you can use it to get out of it. Now compare the bonus with environment. You have been given a great environment, greenery, and trees. Everyone should use that wisely, rather than spending all of it at the same time, it should be spent as needed.

It is our responsibility to protect the environment and since Canada is one of the best countries to live in, why don't we all take few steps towards protecting our environment? We need clean water, healthy food, and clear air to survive on this planet. We are known as peacekeepers, then why don't we save our trees, and give a gift to the future generations by saving this same title for them as well. Since this is a group effort, you can start by using public transit to get to your destination. You can either ride your bike or walk to get to work if it close to your house, rather than using your vehicle. It will help everyone because you will save some money on gas, and everyone will get a slightly better air to breath. If you see garbage on the group, pick it up and thrown it in the garbage bin. Try not to make more money by taking away anyone's shelter, food, and water. Saving the environment, being productive and active will give you a long life, rather than technology and short cuts. This is a group activity, therefore, you need to be the first one to take action and if you get one

Mark, Pre-Writing Sample (July, 2010):

Save the Earth or Humans

Green, a word we hear every day. The question is: how green is the city right now? The word green is more and more used as a verb to clean up pollutions. To be green requires individual contributions.

Individuals need to act green rather than talk and think about green. The issue of global warming and pollutions is multiplied daily. However people only talks about how to be green. Only few actually take action to be green. Statistics show, with increase of automobile ownership, the emission of carbon dioxide has multiplied each year. This creates the green house effects, in which carbon dioxide acts as a dome that covers around the earth and traps heat inside. The rapid increase of temperature causes dramatic climate changes such as drought and excessive rain. The consequences are catastrophic. People should take action to protect the only home land – Earth. It's the responsibility of every citizen. According to statistic, the automobile ownership increased by almost forty people per hundred people in forty-five years; the annual transit decreased by hundred rides per person in the same amount of period. Statistic also shows automobiles creates the largest emission of carbon dioxide on earth. Therefore, this is the biggest obstacles individuals have to conquer. Actions are necessary to take to save humans.

To act green saves humans rather than Earth itself. Earth is the kindest planet that offers human resources to survive and to live. However, Earth doesn't rely on humans. It will start another cycle after human destroys themselves, just like any other planets that don't host intellectual beings. Moreover, automobile emissions generate health problems such as lung, brain, and heart problems. Also, it magnifies owners' chance to become overweight. Research demonstrates that adults who use transit weigh five to fifteen pound less than adults who drive to work. This is contributed by walking to transit stations. Even though it seems walking few steps has no effect on weight, in long term, it helps to lose weight. Besides, individuals drive to work can have lack of activities that amplifies weight gain. Furthermore, Calgary is nominated third largest carbon dioxide emission in Canada. New York only has about half of the carbon dioxide emission of Calgary. The main difference is New Yorkers use transit more than Calgarians. About 40% of New Yorkers own automobile compare to 80% Calgarians who own automobile. This is a great example of how individuals can contribute to be green. By taking transit, Calgary can decrease green house gas emission by magnificent amount. In addition, the health issues related to green house gas emission will decrease significantly. It is a win-win situation. Therefore, fellow citizens, please save the Earth for the sake of human survival.

In conclusion, humans have exhausted the Earth and create problems that harm humans eventually. It is everyone's responsibility to protect the Earth. Everyone only has to take a simple step – use the transit.

Mark, Post (Aug 2010)

Inhaling Carbon Dioxide

Global warming becomes a major concern in the world. One of the main contributing factors is carbon dioxide, which traps heat and triggers greenhouse effect. The consequences of carbon dioxide emission can be catastrophic. Although Canada is a country known to be cold and need warmer weather. It cannot take the heat. One simple way to eliminate the problem, is taking transit instead of driving.

Canada has large amount of emissions that contributes to global warming. Statistic illustrates that there is a significant increase in carbon dioxide emissions between the periods of the 1960s to the early 1970s, which the carbon dioxide emissions rise from 11 metric tonnes per capita to about 17 metric tonnes per capita, shoot up from two times more than the global emissions to three times more than the global emissions. Then, the level slightly fluctuates in the periods of the 1970s to 2006. Conversely, the global emissions steadily maintained less than 5 metric tonnes per capita (World Bank, 2010).

Alberta generates most of the carbon dioxide emissions in Canada. Research demonstrates that the overall emissions in Canada are close to 17 metric tonnes per capita. On the other hand, Alberta emits an enormous amount of carbon dioxide, about 73 metric tonnes per capita, which is more than four times of the overall Canadian emissions (Statistics Canada, 2010). Even though people blame the petroleum industry, automobile usage is responsible for the emissions because they consume most of the fossil fuels produced in Alberta.

Taking transit is a simple and effective method to reduce carbon dioxide emission. Driving not only emits greenhouse gases, it also generates large amounts of pollutants such as nitrogen oxides, sulfur oxides, and particulate matter. These pollutants are harmful to the respiratory system, which can cause shortness of breath, asthma, cancer, or even death. In

addition, walking to transit stations can increase daily exercise and prevent obesity. Moreover, transit usage promotes social interaction which is helpful to mental health. Furthermore, using public transportation saves a significant amount of money than driving.

Ultimately, public transportation can promote mental and physical health, save money and protect the environment. Healthy environment can increase quality of lives. It is the citizens' responsibility to protect the environment that allows healthy living. We only have one Earth after all.

Mark, Follow-up (Sept 2013)

Intro

- Outside facts
- Segway to climate problems globally -> Canada -> province -> homes -> individuals

P1

- use stats
- why are individual contribution important

P2

- philosophy of individual happiness vs materialistic lifestyle
- how to

Conclusion

With constant bombardment of climate-change problems from the news, people seem to be too overwhelmed to know what actions they could take to revert this crisis, while there are still many other who do not care about or believe in climate-change. News on melting ice cap in the Antarctica, increased carbon emission from both developed and developing nations, and resource over-usage are extremely disturbing. As of August 20th 2013, the human race has exhausted the Earth's resource-balance available for this year; people are currently running on resources from the future and accumulating environmental debts on the future generations (Huffinton Post). The climate-change issues are not only global problems, but they are individual responsibilities, because it's not just the future generations at stake but also each person's happiness and quality of life.

According to Statistics Canada, each Canadian collectively produces nearly 400ppm carbon dioxide in 2010, compared to below 300ppm emission 200 years ago. As a result, the average temperature has risen by approximately 10 folds. Moreover, the astonishing increase in temperature is much more dramatic in the last 50 to 60 years. This trend corresponds to the increase in the standard of living since the industrial revolution. As the modern living evolves

into busier life-style, the requirements for convenience for fast-paced living increase. More and more disposable products are invented to make people's lives more convenient. Furthermore, rapid updates of the same products keep the cycle of market economy running, according to the current model. Companies purposefully generate products that have expiring components to encourage consumers to purchase the latest products. On the other hand, consumer demands promote the companies to invent "better" and newer products. This vicious cycle drives each individual to further pursue temporary happiness at the costs of the precious resources.

The gratification of acquiring the latest gadgets can only last so long, but the quality of life and health of individuals reduce as the environment becomes poisoned with pollutions from the exploitation of resources. People work harder just to make money to pay for their temporary materialistic needs. They work harder and harder for a better car, a bigger house, and fashionable clothes, because that is what they believe to make themselves and their families happy. Next, people unknowingly enter another vicious cycle of busy life that they are more dependent on the disposable and supposedly convenient products, resulting in less time spent with their families. Is this really what people want? As explained previously, the current market system and lifestyle does not support environmental living. Hence, individuals cannot depend on the system to change as the system follows consumer needs. Individual actions are crucial to cure these vicious cycles.

In conclusion, the power of change is in each individual's hand. People can start by finding their true happiness that comes with more time spent with friends and families. Just as without the individual sand, there won't be a beach, without each individual's contributions, there won't be a

resolution to the climate change crisis. By refusing to follow the current vicious cycles, every one of us can help revert the climate-change crisis and save the planet.`

Appendix M: The Curriculum Design and Development and Preliminary Findings

Introduction:

The following sections describe the design and development of the iEAP curriculum. A natural progression of Chapter Two, it describes the process of applying the research literature to the curriculum design process. This chapter presents in detail the rationale behind and the steps that were taken to create iEAP.

Briefly, the process of the curriculum design and development of iEAP consisted of four phases: 1) literature review and environmental scan; 2) curriculum design and development; 3) pilot implementation and 4) evaluation of the pilot implementation. This chapter will discuss each phase in detail, leading to a 5th phase, explored in greater detail in the subsequent chapter: this research study.

Although this chapter is organized into four distinct phases, curricular design is a dynamic and iterative process. On the surface it may appear to be linear, when in fact, there is much overlap and revision between phases. Traditionally, curriculum design handbooks have included sequential charts which assume that only when one phase is complete, can the next can be approached. Nation and Macalister (2010) call this the ‘waterfall effect’, as the *spillage*, or output, from one component overflows into the next section, or the input. This makes for clear visuals and descriptions, but does not reflect the often messy reality of curricular design, and is not realistic (Tessmer & Wedman 1990). Due to the many inter-related and dependent variables, it is rare, if not impossible, that curriculum can be designed in such a sequential and orderly manner. Because curriculum design is a cyclical process requiring revision and refinement, the juggling of many interrelated variables, and many unrevealed components, a principled and organized approach, along with a good framework, is essential. To spare the reader, it is my

intention in this chapter to present the process in an organized manner, while still remaining faithful to the dynamic and complex design process. With this in mind, I will now discuss the general procedure that was undertaken to create iEAP.

Phase One: Preparation

The first phase of the development of iEAP began in December 2009 and was primarily preparatory. A great deal of time was spent learning about the demands of university study. In order to focus on iEAP, Geoff Pinchbeck and I were provided with a secondment from the bulk of our duties as instructors in EAPP at UofC where we had been working with international students and adult immigrants. Although the goal of university success is paramount for both EAPP students and the LM learners targeted by the iEAP program, the characteristics of the students varied substantially. A large amount of time, therefore, was dedicated to informing ourselves about the target learners and understanding their current levels and struggles. A comprehensive description of these learners can be found in Chapter Two and more details about the ultimate participants in Chapter Four.

A significant share of this workload was devoted to learning more about the specific tasks and challenges facing university students across disciplines. Understanding the characteristics and challenges of the newly admitted LM students and the demands of university programs led to the implementation of the first phase of the project. The following section describes this preparatory phase in three parts: Needs Analysis, Environmental Scan, and the Development of Objectives. Although described separately, these three phases often overlapped or occurred concurrently.

Needs analysis.

This process generally consisted of exploring three areas of interest: necessities, ‘lacks’ (as Nation and Macalister call them), and wants (Nation & Macalister, 2010). Firstly and most

importantly, we needed to discover what universities expect of students. This was a rather lengthy process, as it involved exposing ourselves to a spectrum of materials from a wide range of disciplines, which were often unfamiliar to us.

Early in the process we looked at first-year university textbooks. We profiled them using Cobb's (n.d.) VocabProfiler, and performed measures of Flesch-Kincaid readability (Kincaid et al., 2004) to get a sense of the reading difficulty across programs and faculties. We found that the levels varied between fields of study, but were comparable in that across disciplines, the readings would be challenging for our target LM students. Based on Roessingh & Johnson (2004)'s findings about local ELLs, we predicted that iEAP students would likely demonstrate GE 9 reading level and would therefore likely not be familiar with 95% of the vocabulary required for minimal comprehension (Laufer & Ravenhorst-Kalovski, 2010) university level texts. Content aside, we discovered that Business textbooks contained relatively simpler language and Humanities and Social Science materials were the most linguistically challenging of the excerpts surveyed.

For iEAP to appeal to a larger group of students, we chose cross-disciplinary assignments, with a focus on the three main target subject areas, which we called 'units of inquiry': Social Sciences and Humanities, Science and Engineering, and Business. To do this, we collected examples of assignments from a variety of faculties and reviewed course outlines to get a better understanding of the workload required in different degree programs. Although there are similarities in the writing expectations across disciplines, there are even more differences in genre, type, and quantity of writing expected.

Lectures are an important part of every university program, and many skills are required to effectively understand and interpret the materials presented in them. For this reason, we

attended a few classes and listened to online audio and video university lectures to expose ourselves to the format and characteristics of academic lectures in a variety of study areas.

Finally, and perhaps most importantly, we endeavoured to meet with faculty members in a variety of disciplines. These meetings not only helped us to better understand the requisites of university level study according to professors, they also allowed us to get a frontline perspective. Many of these professors were quite willing to discuss perceived and actual difficulties facing students, as well as their own challenges in meeting student needs. They also gave us new perspectives on the materials and course requirements. Admittedly, these meetings were not always successful. Some faculty members seemed more aware of and interested in issues facing these students than others. Across the board, however, all of the faculty we met with had concerns that their students were arriving to their classes unprepared for the rigours of post-secondary study.

We eventually found ourselves with quite a lengthy list of needs (see Table 2.2 in Chapter Two). A number of those needs, such as time management and general academic reading, span all fields of study, whereas others are only encountered in certain faculties: business plans were only found in Business, and lab reports were only required in science-based faculties. Knowing that we could never possibly address all of these requirements, we had to tease out which of them our target students would likely find most challenging and useful. To do this we had to understand what Nation and Macalister call ‘lacks’ – that is, the skills or knowledge that the learners do not exhibit, thereby preventing successful completion of required tasks.

Our discussions with faculty provided valuable information from the ‘trenches’ about the perceived lacks of students and served as a good starting point. Similarly, a number of published

works (Harklau, Losey & Seigal, 1999; Portes and Rumbaut, 2001; Roberge, Losey & Harklau, 2009) helped us better understand the gap between where our target students are and where universities expect them to be.

In particular, we gleaned that learners transitioning to university would likely find academic vocabulary and register, effective note taking skills, presentation skills, reading and writing fluency and accuracy, and general skills such as time management and handling newfound independence to be quite challenging.

Beyond addressing ‘lacks’, we looked at our own ‘wants’. These were things that, based on our previous experience as instructors, we wanted for our program to be more effective and appealing. We knew, for example, that we wanted to create a curriculum using a sustained content-based approach, and very early on in the development process we chose the over-arching topic of urban development. We then sought to create materials and assignments around this broad theme, while keeping them connected to the learners’ lived experiences in the Calgary area. Our main ‘want’ was to create materials and assign work that was interesting, relevant, and a good fit while responding to the needs of our prospective students.

Environmental scan.

Curriculum designers must always keep in mind practicalities and institutional constraints of their program. iEAP was to take place within a university environment with typical access to space, technology, and trained instructors. We considered it to be of utmost importance that iEAP be designed in a way that could be taught by a variety of instructors, and in a range of settings. Although we planned for a six-week intensive course on campus, we wanted iEAP to be relevant to the high school system, private instruction, and specific disciplines. To us it was crucial that iEAP be adaptable under other scenarios.

It was clear that learners would be bound for a wide range of faculties, and we did not want to exclude even one person that could potentially benefit from the program. For this reason, we chose our three broad units of inquiry, while we also attempted to create assignments that required skills that could be transferred into any tertiary level field of study.

By focusing on *Plan It Calgary* (The City of Calgary, 2007), a futuristic long-term plan for the development of our city, we spent a good deal of time reading the *Plan It* documents and brainstorming ideas to advance this topic. It was a great undertaking for us, two EAL instructors, to learn about the historical context of Calgary and other Canadian cities and the bigger social and environmental issues contributing to the goals of *Plan It*. To help us explore these local issues, we made contact with people and organizations to give us insights into the topic, which initially was quite unfamiliar to us. Despite the fact that we did not have solid backgrounds in the field of urban development, we knew that this was an ideal topic because there was no shortage of interesting and diverse materials, such newspaper articles, documentary films, books, and scientific reports to support and inform our understanding of urban development in Calgary. Additionally, the topic was naturally broad enough that it could be approached through a multidisciplinary lens.

As iEAP was inherently designed as an intensive program, and constrained by the relatively short amount of time in which to cover a large amount of material, we incorporated the instruction and practice of a number of strategies that would serve the participants well in university study. Specifically, we chose to include learning tasks that would foster intensive learning and focus on one topic that we could revisit and understand from multiple perspectives. This sustained content-based approach also permitted us to build on one topic rather than continually introduce new topics or concepts (Pally, 1999).

As our environmental scan progressed, we began to understand the likely diversity of students with a wide range of past experiences and backgrounds. Indeed, this was later the case, as described in Chapter Four. We also predicted that the target students would arrive with varying levels of language proficiency and that it could prove challenging to meet their diverse needs. For this reason, we turned to the literature and did our best to choose, adapt, and create materials of a level that was evidence-based.

Principle-based objectives.

Much of this third step of the preparatory phase was heavily influenced by the literature outlined in Chapter Two. While we developed our objectives based on the needs of the students and the constraints of our program, beyond this we also wanted to design and develop materials in a principled manner, ensuring they were relevant to the learning needs of our targeted demographic of student.

The guiding principles underpinning the iEAP curriculum fall under the broad category of constructivism, but are also goal-driven. That is, learning takes place when students are active and engaged participants, activities are relevant and real, and the curriculum facilitates the students' ability to construct knowledge. There are many techniques that can be used in a variety of scenarios, but in response to the specific needs and wants of the target students, we focused on principles and practices that are most conducive to an academic environment. Our main concern was to develop academic language proficiency, and so students were given opportunities to engage with a variety of academic materials through a range of hands-on activities. Materials were relevant and followed the theory of *i+1* (Krashen, 1981), while productive tasks specifically pushed students to generate academically relevant work (Swain, 1985).

Lessons and activities both modeled target outcomes and demanded that students work at a more advanced level by implementing support and scaffolding, and adhering to the notion of

ZPD (Vygotsky, 1986). As students became more familiar and proficient with the materials, content, and relevant concepts, scaffolding was removed, allowing students to eventually produce and understand at a level beyond their previous ability.

A heavy focus on learning strategies (Chamot & O'Malley, 1994; Oxford, 1990) also dominated the curriculum. Due to the intensive nature of iEAP, it was essential to foster strategies that students could later independently apply in mainstream university, such as self and peer editing and evaluation.

Activities and instruction were deliberate and targeted, both in terms of predetermined language and cognitive strategies. Materials were all situated under the umbrella of one topic, allowing for the recycling of language and vocabulary, thus providing the repeated exposure and spiraling that is necessary for language acquisition (Stahl & Fairbanks, 1986).

Phase Two: Curriculum Design and Development

After the preparatory phase, we began to look towards the curriculum itself by organizing the large amounts of information and materials that we had read and compiled. At this point, we started using the LBD framework (Roessingh, 2007) to help us balance the material design with our desired outcomes.

This section describes in detail the core elements of the project: the design and development of the curriculum itself. As a result of our lengthy preparatory phase, we were able to generate linguistic, strategic, and academic objectives embedded in the materials. Because curriculum design is rarely linear and is often complex, we chose to use the LBD framework to organize and monitor process, especially in the early stages of Phase Two. This phase mainly consisted of creating, compiling, and organizing potential materials for the course, while considering three important aspects: content and sequencing, format and presentation, and monitoring and assessment. Each of these components will be explained in this section.

Content and sequencing.

When using a sustained content-based approach, choosing a sound topic is vital. We needed something that would be engaging and relevant for the students, be broad enough to approach through the lenses of various disciplines, and be narrow enough that language and concepts could easily be revisited and practiced. As introduced in the previous section, *Plan It Calgary* (City of Calgary, 2007) was a very good starting point for us and was chosen in the very earliest stages. After exploring the materials produced by the City of Calgary, we found ourselves reading background material and looking for more information to support and expand upon the *Plan It* materials. From these materials we started teasing out the language and academic skills necessary but challenging or even unknown to our target learners.

The initial way we did this was to determine major assignments that would produce language and require strategies and skills that we had isolated as being necessary, based on Phase One. These major assignments reflected our curricular goals; that is, if students could independently complete the major assignments, we took that as sufficient evidence that they had reached our targets. For this reason, we chose materials to include in the curriculum based on how well they would prepare students to successfully and independently complete the major assignments, and therefore accomplish our main curricular goals.

Figure M.1 Major assignments in iEAP

Pre-testing					
Content Area	Academic Writing and Grammar		Reading Comprehension and Proficiency	Academic Communication Skills	
Social Sciences and Humanities I	Report	Essay In-Class Writing	Extended Reading Portfolio (Book Club)	In-Class Debate	
Science and Engineering II	Research Proposal	Lab Report In-Class Writing	Extended Reading Portfolio (Book Club)	Lab Report Presentation	
Business III	Concept Statement	Business Plan In-Class Writing	Extended Reading Portfolio (Book Club)	Concept Statement Presentation	Business Pitch
Post-testing					

Figure 1. Each of the three content area modules (I – Social Science and Humanities, II – Science and Engineering, III – Business and Communications) consisted of 40 hours of class time and additionally, approximately 40 hours of assigned work. The major assignments in each module were derived from the needs analysis. The remainder of the program was designed, in part, with the objective of enabling student success on all of these major assignments.

There were three main units of inquiry: Social Sciences and Humanities, Science and Engineering, Business, as well as three daily classes: Academic Writing and Grammar, Reading Comprehension and Proficiency, and Oral Communication Skills. This meant that we had to design the iEAP curriculum both vertically, or within the unit itself, and horizontally, across the three units of inquiry. The major assignments and goals were not designed to exist in isolation, rather they were often interdependent – for example, the lab report was a direct follow-up to the research proposal, and the lab report presentation was an oral version of the written submission. This allowed for students to acquire a depth of knowledge about their topic, while extensively

using the same language in different contexts in order to gain deeper linguistic understanding and control.

Curriculum design is complex work and it demands much more than balancing language goals with content; learning strategies and conceptual information are aspects to be included in the design process. The LBD framework, specifically designed for the learning of language through content, proved very useful as we monitored and included the varied components of the design. Interactive tools on the LBD website force the intentional consideration of key design elements that must be embedded in content information in order for deep learning to occur. Multiple entry points into the design framework make it convenient to negotiate the complexity of the design process. The goal is to produce a curriculum blueprint that is well integrated, demonstrates a sense of integrity across the components, and provides sufficient specificity for anyone working with the blueprint to use it as a guide for instructional planning and decision-making. The framework is learner-centered and flexible, yet tightly integrated, explicit, and contextualized.

We adapted the LBD framework to fit with our own iEAP goals and completed a template for each of the subject areas. As can be seen from the completed templates (Figures 3.2, 3.3, 3.4) goals, instructional sequence, materials, learning tasks, and assessment strategies are all integrated into one organized and intuitive framework. These three figures were all created during this phase of the design process and were frequently revisited during the subsequent phases and reproduced in the final curriculum document.

Figure M.2 Learning by Design template: Social sciences and humanities

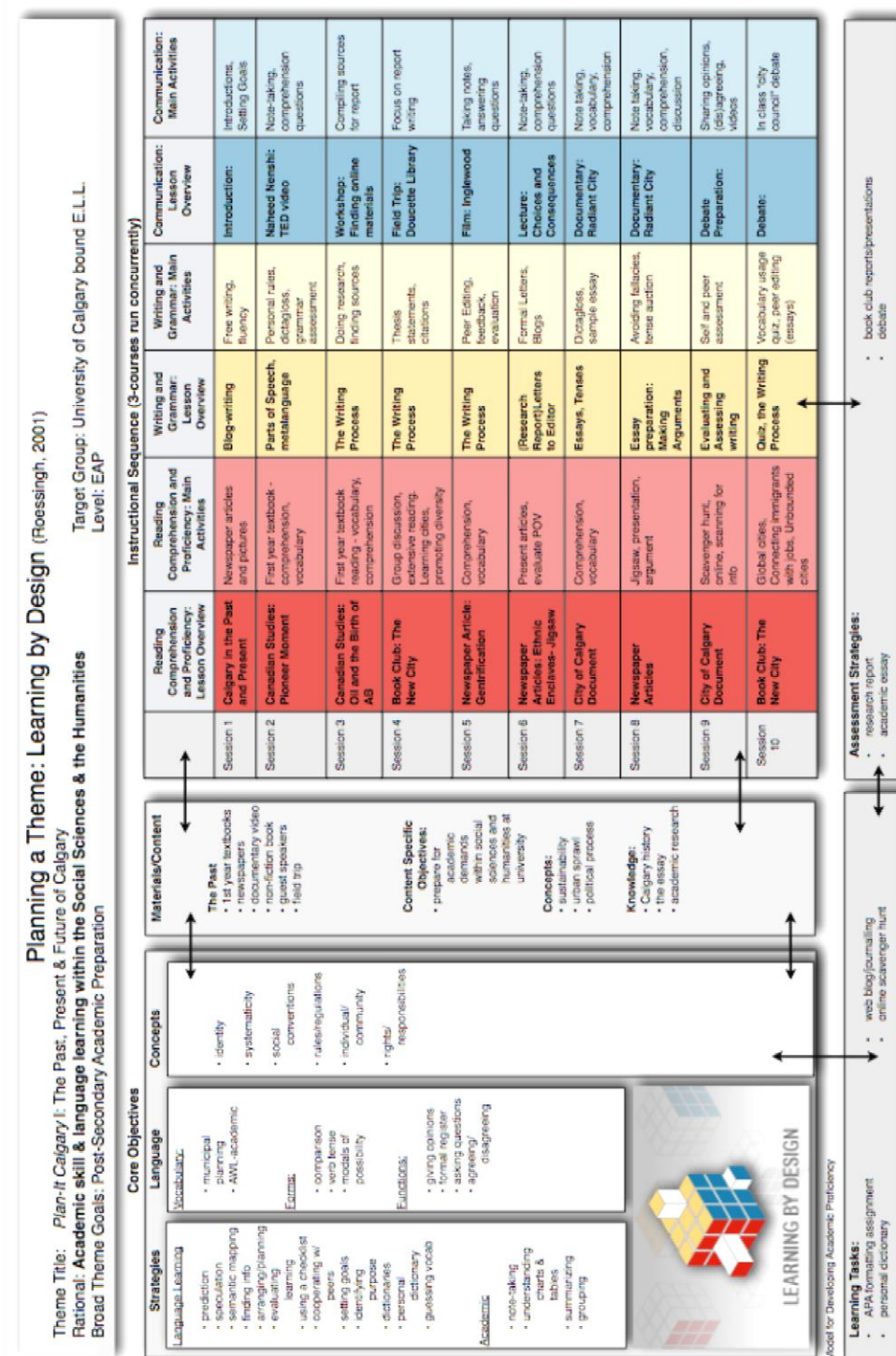


Figure M.3 Learning by Design template: Science and engineering

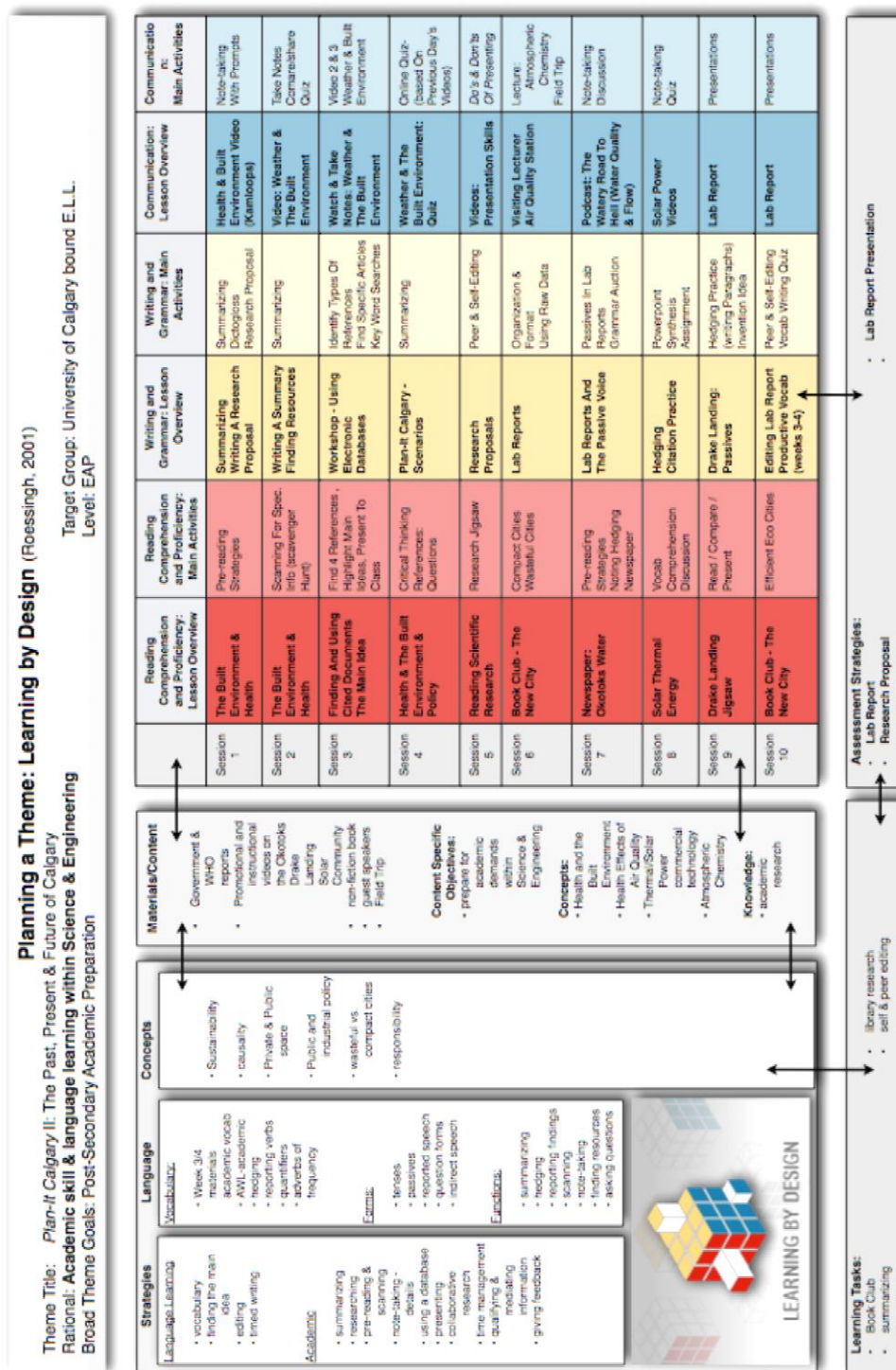
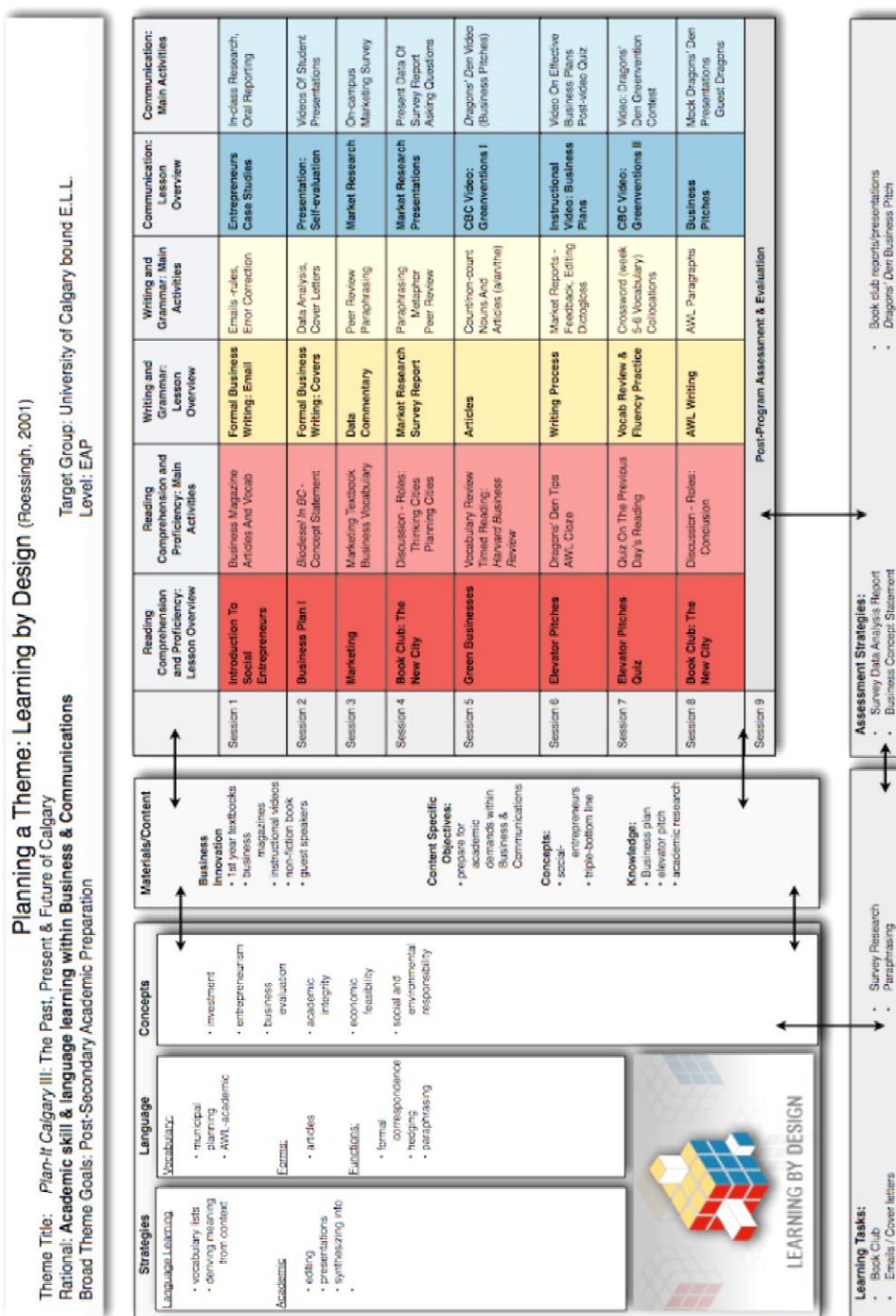


Figure M.4 Learning by Design Template: Business and communications



Although the topic of *Plan It Calgary* and urban development is a key component of the iEAP program, it served mainly as a vehicle to introduce, practice, and construct academic language. It was this language that was the driver behind the content. The readings, documentaries, lectures, and activities presented in class were all used to support language, and the goal of learning about urban development was secondary to the goal of developing academic proficiency and literacy.

In order to do this, we had to carefully choose, adapt, and create materials for iEAP. Core materials needed to meet several criteria, which were at times in conflict with one another. For example, in order for target language to be meaningful, it must be embedded in a context that is accessible to the learner. However, materials that are rich in new vocabulary are incrementally more difficult for learners, as the number of unknown vocabulary items increases. In practice, authentic materials that contain a lot of new vocabulary are inaccessible to the language learner because new words are not encountered within a suitably comprehensible context (Cobb, 2007; Cobb 2008).

Despite these inherent challenges, by working within the single theme of urban development, where concepts, along with academic, or tier two (Beck & McKeown, 1985) and domain-specific, or tier three vocabulary would be repeatedly encountered, it was possible to progress from newspaper-level materials, which are typically written at GE 9, and then spiral the materials up to the level of authentic first year texts. This is similar to Krashen's (2004) work on narrow reading, in which accelerated learning can take place because learners are continually building on what they know. *Web VP English BNC-20 v3.2* (Cobb, n.d.; Heatley & Nation, 1994) allowed us to evaluate potential iEAP course materials and to choose vocabulary items that would be most appropriate to teach explicitly. A similar tool, which uses the Corpus of

Contemporary American English (COCA) in conjunction with the (British National Corpus) BNC-20, has since been developed and was later used to profile student writing. These corpora and other applications of Lextutor tools in this research project are described in greater detail in Chapter Four.

Obviously, it was not always straightforward to find materials that met all these criteria. We frequently found ourselves adapting and rewriting authentic materials in order to increase their comprehensibility and incorporate target vocabulary and structures. Because we wanted students to eventually learn to independently engage with university level materials, we tried to include as many authentic university materials as possible, which were supported and scaffolded by activities to build awareness of comprehension and language strategies. Additionally, there were occasions when we wanted to revisit target vocabulary or language constructs, and so we intentionally planted the words and structures into authentic readings and assignments.

When we could not find relevant materials such as sample assignments, we created them ourselves. This was the most time consuming, but it allowed us to precisely tailor the materials to our predetermined objectives, while also giving us the opportunity to put ourselves in the students' shoes by actually completing the major assignments from start to finish. This provided us with valuable insights about the process of realizing the assignments and clarified how our academic proficiency objectives could be met.

In summary, there are a number of elements that go into curriculum and material design, and a principled approach is necessary to ensure that materials reflect the measurable objectives that are central to the overall design. By carefully designing and controlling both the input and output of the materials, target language can be explicitly taught and supported within an interesting and motivating context.

Format and presentation.

Although iEAP was designed as 120-hour intensive course for students in the summer between high school and university, some flexibility and a detailed description of implementation strategies were built in so that it can be administered in other settings and circumstances. A credit course in high school, summer school between grade 11 and 12, or a first year university course were all options we considered when organizing the materials. With slight modifications, we hope that the curriculum can be realized in other scenarios.

We felt that it was most convenient to offer the course in the summer before university commencement due to logistical and time constraints prior to high school graduation. Because we wanted students to make progress within a restricted period of time, an intensive course was the most obvious option. In its original form at 120 hours, the course is too cumbersome to add to a full course load during high school or university, yet at the same time, 120 hours is not a lot of time to make progress. For this reason, iEAP was developed and offered as a six-week intensive course where students were also expected to commit to an additional 120 hours outside of class to complete homework and study. This workload was inspired by the bulk of other university level courses, which require the same extracurricular commitment; while onerous during summer school and a bit of a rude awakening for high school students, we felt this was the best way to cover the materials and meet iEAP's goals, while providing good preparation for future schooling.

Following the UofC EAPP model, we opted to create three courses, which ran daily: Academic Writing and Grammar (two hours/day), Academic Reading Comprehension and Proficiency (one hour/day), and Academic Oral Communication Skills (one hour/day). These three courses were tightly integrated and skills and strategies often overlapped between them. For example, the skill of summarizing was first introduced and practiced in the Writing and

Grammar class. Then in the Communications class, students would verbally summarize and present what they had read in Reading. This horizontal integration of the three classes permitted effective recycling, scaffolding, and spiraling of key language skills.

Complementing the three courses were the three units of inquiry: Social Sciences and Humanities, Science and Engineering, and Business, representing common target faculties for newly admitted students. iEAP began with two weeks devoted to the Social Sciences and Humanities' perspectives of urban development, and readings and assignments largely mirrored those that would be found in these faculties. A focus on social aspects, such as history, provided a good entry point and background to the subsequent materials, because the social issues of urban development were those most apparent to the learners and encountered in more accessible readings. From there, the next two weeks were dedicated to Science and Engineering, where some of the more technical aspects of urban development were discussed. These topics were bridged within the first two weeks of the course by shifting the social focus to one of health. We then looked at the more scientific aspects of the built urban environment which may affect health, such as air quality and water management. Finally, the last two weeks of the course were devoted to Business Communications. In this section, students improved upon the information and knowledge they had already gained in the previous weeks to create a product or service to meet a need of city residents. The major assignment in this section of the course was to create and pitch a business plan. Because of their familiarity with the topic in three subject areas, students were exposed to a variety of different types of assignments and reading materials on one broad topic. Approaching one topic from multiple perspectives allowed for a more in-depth understanding of the concepts while learning language and skills that could be applied across and within disciplines.

Monitoring and assessment.

During the entire second phase there was a deliberate focus on assessment. As we had set out objectives early on when we devised the major assignments, we also determined how to evaluate the accomplishment of the objectives. The assignments were carefully crafted to ensure that they would indeed illustrate whether or not goals had been met, with target skills and language effectively acquired and applied. We also strategically designed measurement tools to evaluate the major assignments in the most quantifiable way we felt possible. The rubrics we created largely measured language: errors were all coded and quantified, contributing to the bulk of the students' grade. In this way students were able to easily understand feedback and recognize where marks were lost or gained, while the importance of appropriate and accurate language usage was elevated. The relatively large amount of assignments required that the instructor provide constant and timely feedback with consistent monitoring. This also permitted continuous assessment of the course and students, so that needs could be attended to quickly; for example, the instructor could recognize early on if a concept had not been adequately understood and could then review and spend more time on it until students were better able to demonstrate their understanding.

Besides the major assignments throughout the course, we also chose and designed pre- and post-testing tools to assess student levels at the beginning of the course to inform instruction, and to also compare with post-testing to investigate any changes over the course of iEAP. These tests provided valuable information about the range of academic proficiency and skills in the class and helped to inform future instruction. They are described in Chapter Four.

Besides these quantitative methods of monitoring and assessment, more qualitative approaches were also incorporated to better gain deeper insights into the impact of iEAP on learner outcomes. Besides the assessment of errors, holistic grades and feedback were also

provided to students. This type of feedback is less specific in terms of our language goals, but better assesses high-level skills such as critical thinking and synthesis. It is also more typical of the feedback received both in secondary and tertiary settings.

Other qualitative assessment and monitoring methods were designed into the course: 1. planned student interviews. 2. field notes and instructor observations, and 3. questionnaires about learning styles feedback on the course. These documents also provide assessment for the program, permitting a multi-layered understanding of the students and their progression. All consenting participants also had their work collected and compiled into portfolios, so class assignments and homework could also shed light on successes, failures, and other qualities of the program.

By designing a wide range of assessment into the curriculum, monitoring and evaluation was always in the forefront. These are vital components of any curriculum, not only if its effects are to be measured or better understood, but also if an instructor is to be responsive to specific or unpredicted student needs as the course unfolds. Like all aspects of curricular design, assessment and monitoring must be crafted into the overall plan, or they can all too easily become overlooked or overshadowed by the other competing dynamics of the design.

Phase Three: Implementation

The third phase of the curriculum design involved running two iterations of iEAP. Although it can be very difficult to come up with a final product in curriculum design because there are always further modifications and updates that can be made, test-driving a curriculum is probably the most important method of tweaking and discovering components to add, remove, or alter. By building monitoring and assessment into the design, prototype and subsequent implementations can be extremely valuable. By running the program, constructive student and instructor feedback

can be collected and integrated to improve the course for future iterations. This also characterizes DBR, which is the overarching research strategy and iterative in nature.

The curriculum was implemented in the summers of 2010 and 2011 at UofC through the English for Academic Purposes Program (EAPP). Despite high numbers of target students, we experienced difficulties finding and recruiting them. Enlisting students for these two implementations was done primarily through their high school English or former EAL instructors. We made contact with teachers, guidance counsellors, and administrators, to provide them with details about iEAP. We then asked them to recommend potential students. In some cases, students contacted us of their own volition, and in other cases we contacted them based on teacher recommendations. Although we know from the demographic information in Calgary and previous local research that a large number of potential students are finishing high school and entering university, we struggled both to reach out to them about our program and to convince them to participate. Due to privacy concerns and protocols, it was difficult to contact the students or their parents directly. Those that we were able to get in touch with were often unaware of or unwilling to accept the potential challenges of university. Of the students we were able to make contact with, many had not yet received their ELA 30-1 diploma exam results, and did not fully understand their actual aptitudes. Others still had plans to upgrade, work, go abroad, or were simply not willing to dedicate the summer before university to schooling.

Ultimately, two small iterations of iEAP were run; seven students took part in the first program and only four in the second. Each of the students was entering first year university studies and had already gained admittance to university. Of these 11 students, ten agreed to participate in the research component of the iEAP project, and they are described in greater detail in Chapter Four.

Phase Four: Preliminary Evaluations of the Project

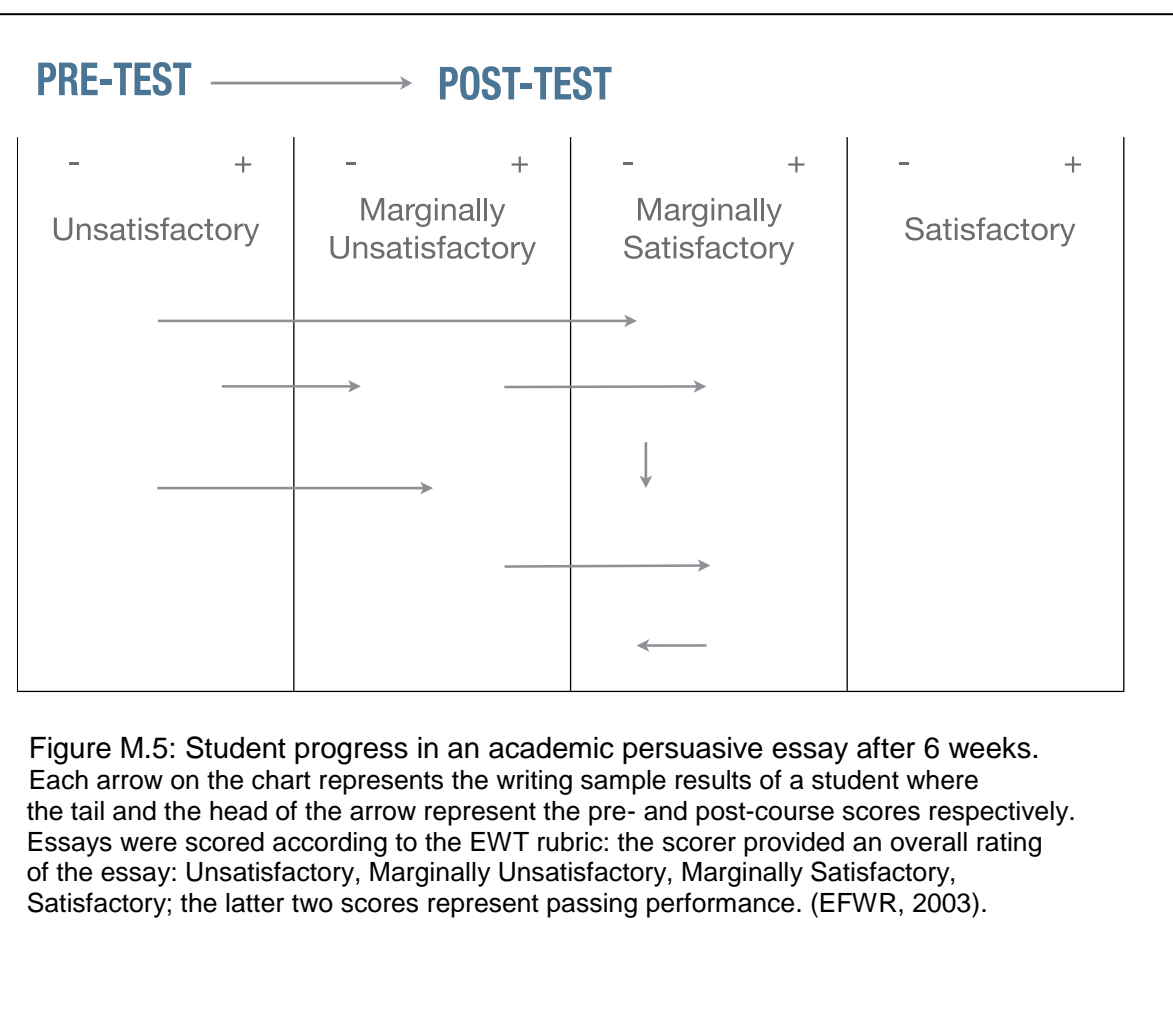
The fourth phase of iEAP's development was one of program evaluation. Wiggins and McTighe (1998) and Nation and Macalister (2010) have shown that evaluating and assessing a curriculum design is crucial and should permeate all aspects of the development and its implementation, although this phase is most often overlooked. This section discusses the preliminary results from summer 2010 that were compiled as broad program evaluation for ourselves and the funding body, Alberta Employment and Immigration, as the curriculum development was supported through a grant from them. It was these findings that motivated a more in-depth investigation and this thesis.

Throughout this first iteration, student progress was palpable. My perspective as their instructor was that each day the students seemed to be undergoing positive changes-not only were they producing better quality work, but they also appeared more confident and capable. Certainly instructor impressions are important, but they are also limited and may be biased. In an attempt to quantify our results and provide data to our funders, pre- and post-tests were administered to assess student writing, reading comprehension, and receptive and productive vocabulary of the 2010 participants. These findings were also published in a special edition on G1.5 learners in *TESL Canada Journal* (Pinchbeck & Crossman, 2012). The research which defines this thesis differs from what is presented in the following section in that the methodologies have since been refined and students from both iterations are included in the exhaustive findings presented in Chapter Four.

Academic writing.

On the first day of class, the students were asked to compose an academic style persuasive essay.

Their essays were then blind marked by an independent assessor using a trait-based error-coding sheet originally designed for the UofC Effective Writing Test (EWT). Figure 3.5 shows the final mark for the iEAP student essays before and after the program. The method used for determining these overall results varies slightly in subsequent more in-depth research, and refined procedures are described in Chapter Four. As Figure 3.5 indicates, five of seven students improved.



Essay writing errors.

While the overall essay score findings shown in Figure 3.5 illustrate that iEAP students, for the most part, made overall improvements in academic writing, more details about these improvements were needed. The numbers of errors in different error categories were divided by the total number of words (tokens) in each essay to give the error rates, as shown in Table 3.1. Students showed significant improvements in all categories where error numbers were relatively frequent (grammar, organization, vocabulary) and class averages on all remaining categories were also better on the post-program essays. Thus, the improvement in overall essay marks can be attributed to general improvements across the entire range of traits represented on the scoring rubric.

Table M.1

Error rates in student essays before and after the iEAP program (2010).

Error Rate - Type	pre	post	t	df	Sig. (2-tailed)
Punctuation & Spelling	0.89%	0.18%	2.23	6	.067
Vocabulary & Grammar	8.9%	5.9%	2.57*	6	.042
Organization	0.71%	0.27%	2.89*	6	.028
Overall	10.5%	6.37%	3.42*	6	.014

Note. Writing errors were tabulated and divided by the total number of words. Trained, experienced markers using the EWT scoring sheets blind-marked pre- and post-iEAP program academic essays. The score sheet provides error frequency information in major categories that comprise 57 different error types and 156 sub-types. Repeated instances of the same error type are only counted as one error (EFWR, 1993). Error rates in each major category were calculated by dividing the number of error types by the total number of words (tokens) in the essay. In some cases, error categories were combined; for example, "Organization" error rates represent the combined errors from "Paragraph Error" and "Essay Structure." Differences between pre- and post-iEAP program results were compared using the paired samples t-Test.

*p<0.05 (2-tailed)

Vocabulary.

The relationship between vocabulary knowledge, reading comprehension, and academic achievement has been documented (Engber, 1995). Using standardized and in-house tests immediately before and after iEAP, students showed significant gains on receptive and productive vocabulary. One of the tests that we used was the Gates MacGinitie Reading Test (GMRT), a standardized, widely used test of reading skills and vocabulary knowledge in K-12 educational contexts in North America (MacGinitie & MacGinitie, 1992). As shown in Table 3.2, the average vocabulary grade level of the iEAP class increased from a GE 6.9 pre-program to a GE 8.5 post-program. Grade levels on this test correspond to the vocabulary of the average Canadian student in that grade.

Table M.2

GMRT Vocabulary (Grade Levels) Before and After iEAP Program (2010).

Student	Vocabulary Grade Level		
	Pre	Post	Difference
1	5.0	7.3	2.3
2	10.6	9.1	-1.5
3	4.6	7.9	2.3
4	5.7	8.1	2.4
5	7.6	9.3	1.7
6	8.1	8.8	0.7
7	7.3	9.3	2.0
Class Avg.	6.9	8.5	*1.6

Note. This test provides a normalized grade level that corresponds to public school grade levels. Therefore, a 'Grade five' result on this test means that the examinee has roughly the same vocabulary as the average grade five student. Level E - forms 3 and 4 (2nd Canadian Edition - Grade 9 level) of the GMRT were used for the pre- and post- tests, respectively (MacGinitie & MacGinitie, 1992). Differences were compared using a paired-sample t-test. The iEAP designers had no knowledge of this test or its contents before the test administration.
(*t(6)=-2.64; p=.029, two-tailed)

We also wanted to evaluate the degree to which students were able to successfully apply their apparent increase in vocabulary by incorporating more sophisticated words into their own writing. Table 3.3 shows the percentage of vocabulary types from the BNC-20 3K word bands and above in student essays before and after iEAP. The results show that the 2010 cohort of iEAP students used more sophisticated vocabulary in their post-program essays, and they did so with significantly fewer writing errors. As described in Chapter Four, the method for determining error rate was later refined in order to better represent the relative severity of different error types.

Table M.3

Essay Vocabulary Use and Writing Errors, 2010

	Pre	Post	t	df	Sig. (2-tailed)
% Vocabulary usage beyond BNC 2K word band	8.84%	12.76%	-3.5*	6	.013
Writing Error rate	10.5%	6.4%	3.4*	6	.014

Note. Percentage of student essay vocabulary beyond the 2000 most common words in the BNC as compared to total writing error rates. The *pre-* and *post-* numbers represent class averages (n=7) before and after the iEAP program that were compared statistically using the paired sample T-Test.

*p<.05 (2-tailed)