Eastern Washington University EWU Digital Commons

EWU Masters Thesis Collection

Student Research and Creative Works

Winter 2018

Proposed: Technical Communicators Collaborating with Educators to Develop a Better EFL Curriculum for Ecuadorian Universities

Daniel Jack Williamson *Eastern Washington University*

Follow this and additional works at: http://dc.ewu.edu/theses

C Part of the <u>Bilingual, Multilingual, and Multicultural Education Commons</u>, <u>Educational</u> <u>Assessment, Evaluation, and Research Commons</u>, <u>Educational Methods Commons</u>, and the <u>Language and Literacy Education Commons</u>

Recommended Citation

Williamson, Daniel Jack, "Proposed: Technical Communicators Collaborating with Educators to Develop a Better EFL Curriculum for Ecuadorian Universities" (2018). *EWU Masters Thesis Collection*. 472. http://dc.ewu.edu/theses/472

This Thesis is brought to you for free and open access by the Student Research and Creative Works at EWU Digital Commons. It has been accepted for inclusion in EWU Masters Thesis Collection by an authorized administrator of EWU Digital Commons. For more information, please contact jotto@ewu.edu.

Proposed: Technical Communicators Collaborating with Educators to Develop a Better EFL Curriculum for Ecuadorian Universities

A Thesis Presented to Eastern Washington University

Cheney, Washington, USA

In Partial Fulfillment of the Requirements for the Degree

Master of Arts: English with an Emphasis in Teaching English as a Second Language

By Daniel Jack Williamson

Winter 2018

Thesis of

Daniel Jack Williamson

Approved by

LaVona L. Reeves, PhD

Professor of English and Women's & Gender Studies

Chair, Graduate Study Committee

Henry-York Steiner, PhD

Professor of English

Member, Graduate Study Committee

Ann I. Van Wig, PhD

Assistant Professor of Education

Member, Graduate Study Committee

Date

Date

Date

AUTHORIZATION

In presenting this thesis in partial fulfillment of the requirements for a Master of Arts degree at Eastern Washington University, I agree that the John F. Kennedy Library shall make copies freely available for inspection. I further agree that copying of this project in whole or in part is allowable only for scholarly purposes. It is understood, however, that any copying or publication of this thesis for commercial purposes, or for financial gain,

shall not be allowed without my written permission.

Signature:

Daniel Jack Williamson

Date

Abstract

This policy and action research in the form of a case study of language policy in Ecuador posits, with a pragmatic view, that students' backgrounds, prior knowledge, and learning objectives should significantly impact curriculum development. Applying principles of information development, such as conducting usability studies and generating appropriate user profiles, technical communicators produce user-friendly documentation. Pairing technical communicators with educators to collaborate in the parallel processes of information development and curriculum development may yield instructional materials more useful to students than currently available materials are. An etic perspective is appropriate for this study for it does not presuppose what the students' learning objectives are. Two hundred seventy-nine students taking classes in English as a foreign language (EFL) at three Ecuadorian higher education institutions voluntarily responded to a convenience sample survey designed to learn what benefits the students hoped to obtain from their university-level study of the English language. If this knowledge of student needs was used, in part, to form user profiles prior to course design, it may likely result in a different iteration of EFL instruction than the one currently being shaped by publishers and the national government as well as previous iterations shaped by higher education institutions and instructors.

Acknowledgements

How anyone can write a thesis unaided by many helping hands is beyond my capacity to fathom. I owe thanks to so many people that I run a risk of not acknowledging all contributors to this document. I apologize in advance in the event that I overlooked anyone who aided me.

Besides myself, one of the two people who spent the most hours engaged with this thesis was John Bennight Nielsen, a fellow student at Eastern Washington University, who majored in Spanish. We spent many hours on several Saturday mornings side by side in the computer lab at the Pence Union Building laboring over a spreadsheet with roughly two hundred eighty rows and fifty-five columns of raw data. Mr. Nielsen's assistance in coding survey responses was indispensable, as was his verification that the raw data from handwritten survey responses were faithfully and accurately transferred onto the spreadsheet.

One of my younger brothers, James Michael Williamson, was the other person who spent many hours on multiple days assisting me with this thesis. He accompanied me on my nearly weeklong journey to Ecuador. While there, he was my chauffeur, my guide, my interpreter, my logistics expert, my cultural broker, my photographer, and my errand runner. Back in the United States, he translated documents for my IRB (Institutional Review Board for Human Subjects Research) application into Spanish, made the initial contacts with educators at the higher education institutions we visited (per IRB documents), provided useful background information about Ecuador, helped me navigate several Spanish-language websites, and resolved coding questions by phone on those few occasions when Mr. Nielsen and I had any doubts about raw data interpretations.

Dr. LaVona Reeves and Dr. Tracey McHenry, faculty advisors of the MA-TESL students in the English Department at Eastern Washington University also made indispensable contributions, as I could not have proceeded with this thesis without their authorizations. Dr. Reeves made the most important contributions to the crafting of the survey itself. After describing what kind of data I was seeking, we generated a list of items to include in the survey—with most of them represented in the final draft of the survey. She advised me on making initial contacts with university faculty in Ecuador. She also warned me about what research proposal conditions would result in the denial of my IRB application and identified key elements to include in my IRB application that would make its approval more likely. Dr. McHenry also provided navigational aid and authorization through the IRB process, plus she made important recommendations about the outline of my thesis that helped me organize my otherwise scrambled thoughts. Dr. McHenry served as my adviser for the 2014 EWU Student Research and Creative Works Symposium, where I first presented the material found in this thesis—a presentation titled "Information Development as a Model for Systemic EFL Instructional Reforms in Ecuador."

I also wish to acknowledge the contributions of Dr. Reeves and Dr. McHenry in my graduate education at Eastern Washington University. I had spent a year teaching English in South Korea, but I really did not know my craft. I was an amateur making only guesses about what I should and should not be doing as an EFL instructor. These two professors provided me with the knowledge, methods, and tools needed to become a professional. Both of these professors granted students, including myself, ample opportunities to come to the front of the classroom and demonstrate what we knew. These mini-teaching opportunities are precisely what we, the MA-TESL students, need to prepare us to not just know English, but to *teach* English to speakers of other languages.

Ruth Galm of Eastern Washington University's Office of Grant and Research Development was another vital source of information on guiding me through the IRB application process. Even after the process was complete and my application was approved, I had additional questions about research protocols, and Ruth Galm articulated answers that removed all mystery.

Dr. Logan Greene, chair of the English Department at Eastern Washington University, provided much aid in navigating "red tape," as did the department's administrative assistant, Diane Weber. I made numerous treks to Dr. Greene's office to consult with her and to obtain signatures for various forms. Dr. Greene also extended my opportunity for thesis review and defense when completion of my thesis was long overdue. I relied on Dr. Greene and Ms. Weber for help in circumnavigating institutional obstacles encountered along my path toward graduation.

I thank Dr. Teena Carnegie and senior lecturer Tim Roe of Eastern Washington University for acquainting me with the genres of technical communication. A study of technical communication provided me with a framework within which my research fit. My study of technical communication disabused me of the notion that one could write well without adhering closely to the conventions of genres. Genre-specific expectations do matter in how well one's writing is received. Dr. Justin Young, Dr. Henry-York Steiner, and Dr. Reeves directed my learning of rhetoric and composition. Additionally, Dr. Young and Dr. Reeves mentored me as graduate instructor at Eastern. Dr. Young schooled me in what I needed to know about assembling a curriculum vita. I also received significant assistance in student teaching from administrative assistant Kerri Sadowski (on the bureaucratic end); while senior lecturer Polly Buckingham advised me from a neighboring cubicle (and initiated me in the craft of creative writing—an endeavor further encouraged by Professor Jonathan Johnson). Other faculty, staff, my classmates and my students at EWU aided me, too.

Dr. Reeves and Dr. Young, though both extremely busy with immense workloads of their own, set time aside for conferences with me. They supervised my teaching internships, entertained my questions, resolved some of my dilemmas, and, with great sensitivity, provided firm direction. I spent more time in their offices than in the offices of any other faculty members.

Outside of the English Department, classes in higher education, taught by Dr. Vincent Aleccia, and a class in cognitive psychology, taught by Dr. Danielle Sitzman, not only rounded out information needed for my thesis, but also contributed to my ability to be a cultural broker to the students who were still in the early stages of acclimating to American university academic rigors. Dr. Aleccia also instructed me how to compose a teaching philosophy. Dr. Mimi Marinucci, of the department of Women's and Gender Studies, provided guidance with appropriate third person singular pronoun use in, which informed my word choice decisions in composing this thesis.

Other education professors who added to my pedagogical understanding were Dr. Hermes, Dr. Van Wig, Dr. Liu, Dr. Nollmeyer, and Dr. Asbjornsen. Dr. Jenifer Hermes helped shape my understanding of scaffolding. Dr. Ann Van Wig schooled me in disciplinary literacy, content area literacy, and reading theory. A comparative education class with Dr. Jane Liu helped me to perceive of the Ecuadorian educational system in contrast with those of several other nations. Dr. Gus Nollmeyer helped me shed some of my Luddite tendencies and become an information-age educator. Dr. Douglas Asbjornsen provided guidelines and examples of leading organizational change, particularly in education, which, regarding tertiary-level Ecuadorian EFL instruction, I hope can be realized in accordance with my thesis. Beyond the Education Department, two instructors aided my understanding of special populations of potential English language learners and how I might accommodate them: Hugh Kelly, J.D., with regards to those with disabilities, and Dr. Kayleen Islam-Zwart, of the Psychology Department, with regards to those housed in correctional facilities.

Additionally, Dr. Robert Zinke, Professor of Public Administration, provided insight into the analysis of the underlying, often unspoken, rhetorical purposes driving government communications with the constituent citizenry. In terms of Ecuadorian government communication with the public, I have strived, inasmuch as possible within this thesis, and in the spirit of diplomacy, to refrain from speculating about hidden political agendas and, therefore, to accept official pronouncements at face value. Though I criticize some of the choices made (textbook selection, for example), I hope the Ecuadorian government will view the proposals within this thesis as supportive rather than subversive.

I wish to profusely thank the educators we consulted with at the five Ecuadorian universities we visited. I would have liked to have spent more time comparing notes and getting acquainted, but time was short. All were very gracious in receiving my brother and me. We were very much impressed by their courtesy and professionalism. We were able to circulate surveys at three of the universities, and that could not have happened without their assistance, especially considering that administering the survey interrupted classes already in session. Naturally, I feel gratitude toward the anonymous Ecuadorian university students who voluntarily responded to the survey.

My brother's wife, Cristina (Rina) Williamson (née Tabango), a native of Otavalo, Ecuador, was instrumental in providing key information about Ecuadorian education, economics, culture, and politics. She (and her parents and siblings) are indigenous Kichwa-speaking direct descendants of those who lived in the pre-Columbian Inca Empire. We visited with her parents Rafael and Teresa (standing next to me in Figure 1), who have much knowledge of Otavaleño history and culture.

I first learned of Otavalo's textile, clothing, and handcrafted accessories industry through Rina and her brother, Marcelino, who sold these Otavalo exports here, in the United States—often at kiosks and booths at regional fairs, though Marcelino does own his own boutique shop where these goods are also sold. I learned that Otavaleños have fanned out all over the world to sell goods from their hometown in order to keep these traditional industries alive. They view it as an obligation to their people to contribute to their hometown economy and traditional way of life.



Figure 1: A visit to Rafael and Teresa Tabango in Otavalo, Ecuador Photo by James Williamson

Another brother of Rina's, Andrés Tabango, hosted us at his home in Otavalo and allowed us to establish our home base there during our visit to Ecuador. We saw an example of the producer side of the Otavalo textile industry at his house. Andrés, like his brother, Marcelino, is an entrepreneur, but is not the boutique retailer that Marcelino is. Andrés home has a detached factory/workshop building where he produces woolen yarn from sheep fleece. While there, we witnessed the delivery of sheep fleece followed by two cycles of washing and then drying before being spun into yarn and, finally, dyed in a variety of colors. There is so much more I could share about what I experienced in Ecuador, but that narrative does not belong here. My thanks to the people of Ecuador, however, is appropriate for this document.

A Japanese woman, Eri Sugimoto, first proposed that I become an English teacher—in her home country. She said that my manner of speaking was very easy for foreigners to understand and, because of that, prospective students would seek me out to learn English from me. Carol Correthers was the person who actually persuaded me into my first teaching job, that of a substitute teacher in Lorain City Schools in Ohio, USA. It was not until after I had begun working as a substitute teacher that I finally went abroad to teach English, albeit in South Korea, not Japan. I enjoyed my job teaching English more than I have ever enjoyed any other job I have had (and I assure readers that I have worked at *many* other jobs for many other employers), so when I returned to higher education to pursue a graduate degree, I chose to further my English-teaching career. Without the influence of these two women, I doubt I would have ever started along this career path.

Finally, I offer my thanks to my extended family, to mental health professionals, and to God for the emotional support I needed that no other sources could provide. My sleep apnea and mental health conditions (bipolar disorder type II, attention deficit disorder, generalized anxiety disorder, and social anxiety disorder) almost prevented me from completing this thesis. Because of their support, I was able to see this through to the end.

Preface

In many ways, I feel an outsider to academic culture. My parents were high school graduates who believed in lifelong learning, but not only was college unnecessary in their pursuit of lifelong learning, college was not part of their plans for any of their ten children, of which I was the oldest.

One fateful day during my sophomore year of high school, I dashed upstairs to work on writing extra credit reports for my college prep biology class without first doing my chores. My major chore assignment for the week—we had a chore rotation chart was washing dishes. Our dishwasher was broken and the dishes pile up fast in a family as large as ours. I locked myself in my bedroom so no one could enter. My parents repeated entreaties to do dishes was met with my reply that I was working on very important schoolwork. They warned I would get no supper. I conceded that. This was not the teenage son that they knew.

I excelled in school without much effort. I almost never brought work home from school. My household labor was important to the family, so it was a blessing that schoolwork hardly ever got in the way of that. Also, I had a huge appetite and ate like a pig yet still looked scrawny at 135 pounds. Skipping supper was out of the ordinary. I faced a dilemma, though. I was on the verge of getting a C in a class and only extra credit would pull me up to a B. For the first time in my life, I was taking a rigorous class from a demanding teacher.

My parents demanded I go downstairs for the purpose of conducting a tribunal, to answer for my willful defiance and gross negligence in carrying out family responsibilities. In accordance with their demand, I clambered down the stairs and met their stern gazes, angry eyebrows, and tightly pursed frowning lips. What was the meaning of this dereliction? Why did this course matter to me so much? For crying out loud, it was biology. I had never before expressed any passion or devotion for biology. But, to me, it was the only K-12 course I ever took that contained the phrase "college prep" in its title. College prep mattered to me. This came as an unwelcome surprise to my parents. In my parents' experiences, college turned down-to-earth people into snooty people who inevitably would look down their noses at my parents convinced of their own superiority. They did not want their son to come home from college and regard them with such contempt. Besides, they had no money set aside for college, and the financial aid paradigm of those times were that parents were expected to be the first resource tapped for meeting tuition expenses. I could make good money, money enough to support a family, if I worked in the automotive industry as the prior two generations of my family had done.

I tried every which way to reassure my parents that I would always love and cherish them—that I would never be snooty to them. I have kept that promise and still marvel at how they managed to provide for and raise ten children, some of whom had special needs. I said I would come up with the money necessary for college, myself, through academic scholarships if they would just allow me to salvage my biology grades that evening. I pleaded with them not to resign me to a boring career in a factory. I was doing well at persuading my parents until I got to that last part. I was shooting myself in the foot to disparage factory work. However, Dad relented. He had come home from an overtime shift, no doubt exhausted. He did the dishes that night as an example to me that work—physical labor—was honorable and doing dishes was a very necessary work, and that *real* men never shirked their responsibilities.

I salvaged my grade that night. By the end of the year, I had taken the Preliminary Scholastic Aptitude Test (PSAT). After scoring well, the mailings from over 200 colleges in 35 different states of the USA piled up. Even my parents grew excited as the pile grew. They stipulated, however, that I only apply to low tuition schools—no Ivy League. Were it not for the National Merit Scholarship, I might never have attended college, nor any of my siblings. The trail I blazed would be one my siblings could follow.

But I am getting ahead of myself. Rewind back to kindergarten. I knew I was in love with learning by then, especially reading. Forward to first grade, where I asked my classmates, "First grade? How many grades are there?" I knew of three, but what came after third grade? After going up each rung thereafter, I finally asked, "What comes after twelfth grade?" Then, you are all grown up. One classmate had a different answer. As a grown up, a person could choose to continue school by going to college. Teachers had to go to college to become teachers. As soon as I learned that, I resolved to go to college. How were my parents unaware of this resolve until my sophomore year? I do not know.

Fast forward to third grade, when I checked a book out of the library that charted my destiny. It was a biography of John Quincy Adams, who as a president of the USA, just like his father, John Adams was. The biographical account began in John Quincy's childhood, when his family was living in Paris while his father was an ambassador. John Quincy loved greeting the the people he saw in the streets with the French greeting, "*Bonjour*!" His life in France was fascinating to me. When I grew up, I wanted to be the US Ambassador to France, and bring my young family with me for a season. After that, maybe I would go somewhere else as an ambassador, or maybe do important things in Washington, DC, as a member of a president's Cabinet, or member of Congress. I became a language learner that day. I would learn at least six different languages, including English. No, I did not suddenly enroll in a foreign language class. I would not have that opportunity until eighth grade, when I could take French.

Spanish was offered in the ninth grade, so I took both French and Spanish. My French was always ahead of my Spanish, which meant that when I could not think of how to phrase my thoughts in Spanish, I would try to fudge it by trying to make a French word sound Spanish.

The teaching approaches between French and Spanish varied. Both were taught with a combination of grammar-translation method and audiolingualism, and both delved into the cultural underpinnings of the language. The biggest difference was that we read widely in French and cobbled together essays in Spanish. Also, we sang songs in French, which we almost never did in Spanish. The French strategies seemed to work better. My reading and listening comprehension skills were stronger in French. My speaking and writing skills were also stronger in French. I think Spanish class resorted to writing too soon in the curriculum, before we could get a handle on the syntax or build a large enough vocabulary.

I continued both French and Spanish at The Ohio State University. I even pursued Spanish one course further than I did French, but my Spanish abilities still lagged my French abilities. I majored in international studies, consistent with my desires to be an ambassador. I registered for a Japanese class and a Polish class while an undergraduate, but dropped both within a week or so because they would have increased my workloads more than I had anticipated.

I volunteered with an extracurricular program called American Language Partners. We were to socialize and go out on the town with international students who were enrolled in the university's intensive English program. The international students lived clustered together with other speakers of their home languages, which did not give them practice with English away from the classroom. Our involvement with them would help them practice English more and acquaint them somewhat with our culture. I was partnered with three men from Saudi Arabia. They drove about town as I rode with them and conversed. I enjoyed their company. Coming from a rural and small town background, and landing in the big city of Columbus, I was getting acquainted with a new culture, too. I soon discovered that these men from Saudi Arabia were more familiar with the city's culture than I was. They tried to take me to a nightclub with a dance floor. I had never been to one before. The bouncer would not let me in because I was only 18, and the minimum age to gain entrance was 21. My language partners were astonished that I was so young. Failing that, they then drove in the direction of a strip club. I had no idea what that was and did not know that such a thing existed. When they explained it to me, I apologized for not being willing to go. They took me home while I was still in a state of shock over the whole strip club concept. After that, I confess I only mingled with them at small parties hosted by the American Language Partners rather than accompany them about town.

I was ordinarily an extremely shy person, but whenever I encountered people who had lived outside the USA, my curiosity overcame my shyness. I would ask as many

xvii

questions as I could, enraptured by all the details. I roomed with a Japanese student for awhile and with a French Jew for awhile. For the Frenchman, being Jewish was a big part of his self-identity, and he appreciated those who acknowledged him as a French Jew rather than just a Frenchman.

At an international career fair at the university late in my undergraduate career, I found I had sabotaged my career ambitions. The prospective employers were looking for three qualities when considering applicants:

- 1. Was the applicant fluent in a foreign language?
- 2. Did an applicant's transcript or work experience include specialized skills in an applied field such as accounting, computer science, business finance, or management?
- 3. Did the applicant have any experience living overseas?

I had studied foreign language, but was never fluent. I had no idea that I should have double-majored in an applied field. My international studies major was not enough, for I possessed no skills that were in demand. It was too late for me to go back and start a new major. I needed to graduate quickly. I often entertained notions of studying abroad, but was always leery of the cost. I was poor. I could not afford to go abroad. Careerwise, I learned that I could not afford not to go. Yes, that is a double-negative. Not knowing was a consequence of blazing a trail that no one in my family had yet traveled. I had no mentor.

After graduation, I moved from entry job to entry level job, across industries, never ascending higher than lower level management positions, never staying for long at any of them due to disenchantment. I was not well traveled in the United States, let alone outside the country except for short forays into the province of Ontario, Canada. Marriage brought more opportunities to travel, as my Japanese wife wanted to see more of the US. I never did follow up on her suggestion to teach English in Japan.

After awhile, I ended up at Ford Motor Company, where my dad had spent his career. He had finally overcome his aversion to college and both he and my mom had taken a few college classes at a local branch campus of Bowling Green State University. The auto industry had contracted over the years—a shell of what it once was. My dad conceded that I would have struggled to make ends meet as I would have spent more time being laid off than on the factory floor. I lost my Ford job after nearly four years.

A major recession hit northern Ohio. Ford was just one of many employers shuttering workplaces. Tens of thousands of people were out of work seeking new employment. My joblessness came at a bad time in a bad place. Following up on a tip, I worked as a substitute teacher, which was my first teaching gig

I was licensed to teach long-term in social studies classes due to the many social science classes shown on my college transcript. I never subbed long-term. For short-term assignments, I could sub at any grade level in any subject area in both special and general education courses. I did, in fact, teach at every grade level and in virtually every subject area. I liked the mix. I am an interdisciplinary thinker. Second grade was my favorite student population to teach. By second grade, students know what is expected and acceptable school behavior. They have not yet reached a rebellious age. They are still excited about learning. Some of them start burning out and losing interest in third grade.

Substitute teaching provided no job benefits—not even holiday pay. I stood no chance of landing a job in northern Ohio at that time that would allow me to reliably keep bills paid. A resume posted online attracted the attention of recruiters for English language teaching jobs in South Korea. Working in South Korea was a revelation. I loved my job. I showed up everyday looking forward to having fun. Most of my students were pre-schoolers. I taught older students, too, but the older they were, the fewer there were. Learning English was a way for South Korean students to gain advantages in schooling, employment, and prestige. Many wanted to study abroad in the United States, but sometimes barriers are difficult to overcome. Hoops—one must jump through hoops to gain access to an American university education. I was aware of this, myself, though I was a white American male, due to the blue collar culture I grew up in. Non-white members of my family are much more aware of institutional barriers barriers that remain to this very day. For me, issue of the institutional barriers in higher education that minorities struggle to overcome is not abstract. My family is impacted. I have something at stake. For international students, there is much to navigate, even after being admitted to a university. My thesis research in Ecuador and my interest in social justice for the EFL students there are an extension of my concern for my family.

In the interest of advancing my TESOL career, I wanted more training. I was just winging it when I taught in South Korea. After a couple of years living in the state of Washington, I started investigating graduate school. A couple of other schooling options were unappealing. A visit to the campus of Eastern Washington University and an opportunity to meet with the director of the MATESL program confirmed this was the right place for graduate school. In a class with the MATESL program director during my first quarter at EWU, I learned about cultural brokers. The program director instilled in us the need to not only be an English instructor, but to be a bridge between cultures. Yes, I want to be that bridge for the disadvantaged entering the academic culture of the USA. If my students were interested in studying in the USA, yes, I would want to be that bridge even if I were teaching abroad.

I have supplemented my TESL coursework with classes in other areas of English plus classes in pedagogy, diversity, psychology, and administration. Though I feel like an outsider to academic culture, and therefore at a disadvantage, others will perceive me to be a white male, an insider. I am a white male. The expectation of white males is that they are in the most privileged of positions and can offer authoritative advice on how to access privilege. I have endeavored to meet that expectation—act the part—so as not to be a disappointment to my students. My endeavor to obtain and share "insider" cultural capital will continue. I believe my studies at EWU have helped me prepare to be what my ESOL students need me to be. I call them *my* students not because I own them, but because I own my responsibilities to serve them. I thoroughly enjoy working with my students and the insights they share with me. They are the ones who make my job fun. From here, I segue to my teaching philosophy.

Students often learn English to gain a competitive advantage, and that is exactly what I want them to gain in my classroom. I listen to my students to discover what they want the English language to do for them, and then I endeavor to chart a course that will get them there. Students with high aspirations want to learn from teachers who, themselves, have achieved. If they want to score well on tests, they will put more trust in a teacher who has scored well on tests. My SAT, ACT, PSAT, and especially GRE scores stack up well against any criteria. I paid for a significant portion of my undergraduate education with a National Merit Scholarship awarded to those who score in the top half of one percent on the PSAT and SAT.

It takes an interdisciplinary teacher to meet the varied needs of students. I teach more than just English. I teach subject matter relevant to the experiences and interests of my students and I do that with English. Before I was a teacher, I worked in many different jobs in several industries for several employers. I believe my varied work experience better prepares me to connect to students' backgrounds and have more insights about how to activate students' prior knowledge. As an undergraduate, I majored in international studies and participated in an array of extracurricular activities (student government, the performing arts, sports, and a number of student clubs). My transcripts, both graduate and undergraduate, and my thesis attest that I am an interdisciplinary thinker. Students are diverse, especially the speakers of other languages who come to my class to learn English. My varied experience and interdisciplinary thinking evokes within me a deep respect for my students and a resolve to assist them as best I can. My students will learn English not just for the sake of learning English, but they will learn English attuned to their backgrounds and suited to the purposes they desire.

The methods of my teaching incorporate the usual Direct Method, Grammar Translation, Total Physical Response, Task-based Instruction, and Audiolingualism that nearly all native English-speaking teachers use; but the untrained and inexperienced teachers rely only upon those methods. The other methods I employ are the Participatory Approach (collective problem solving), Communicative Language Teaching, and Content-based Instruction. These additional methods and approaches facilitate the use of English in strategic and practical ways. Students receive more opportunities for oral communication and self-expression than they would in traditional teacher-fronted lecture classes.

I am a pragmatist. When I do not know what will work, I seek to find what works. I keep myself apprised of new scholarship in the fields of TESOL, English composition and rhetoric, technical communication, education, and cognitive psychology in the interest of improving my pedagogy. Whatever I do not know, I want to find it out, and I will not be satisfied with whatever point I reach until I know everything about everything. I am a lifelong learner. I wish to instill in my students a capacity and willingness to keep on learning.

Table of Contents

Abstractiv
Acknowledgements
Prefacexii
Table of Contentsxiv
List of Tablesxxvi
List of Figuresxxvii
Chapter 1: Introduction
Prologue: Teaching English in a South Korean hagwon, 2005
An Ecuadorian Presidency That Became a National Era, 2006-2017
Purpose
Setting
Needs and the Research Question
Solutions1
Chapter 2: Literature Review
Selected Technical Communication Processes1
Product Development and Information Development 17
Single Sourcing for the Purposes of Content Reuse
Phases and Cycles of Information Development
The Information Process Maturity Model
Rarity of Information Development outside the USA and Canada
Project Management

	Collaboration	. 30
	Technical Editing	. 34
	SME and Information Developer Interactivity	. 37
	Indexing	. 38
	Proposal Writing and Grant Seeking	. 40
	Technical Communicators Adapting within Larger Organizations	. 41
	Usability	. 44
	Agility	. 51
	Who Controls Curriculum and What Are the Goals?	. 52
	Can and Should U.S. Higher Education Be Emulated Elsewhere?	. 57
	Teaching English to Speakers of Other Languages	. 62
	English Acquisition as Means to an End	. 66
	The Brain of the Learner	. 68
	Scaffolding	. 76
	Textbook Rhetoric	. 84
C	hapter 3: Ecuador	. 87
	A Brief Profile of Ecuador	. 87
	Remarkable Changes in Ecuador between 2006 and 2017	. 88
	Ecuadorian Educational Reforms	. 90
	A Heightened Emphasis on TEFL Professional Development	. 93
	Benchmarking English Proficiency	. 95
	A Critique of the Required Textbooks	. 97
	Site visits	103

Chapter 4: Methodology	108
TESOL Case Study Guidelines	108
Mixed Methods	112
Policy Research	114
Human Subject Research	119
Survey Items	124
Methodology for Coding Responses	127
Chapter 5: Findings	132
Survey Item Responses and Reliability	133
Quantification and Tabulation of Survey Responses	139
Chapter 6: Discussion	156
Information Development Recommendations	161
Responses to Policy Proposal Expectations	174
Final Reflection	188
References	192
Appendix A: List of Acronyms and Abbreviations	203
Appendix B: Survey & Supporting Documents	206
Appendix C: Vita	212

List of Tables

Table 1: Response language grouped by ultimate degree goal
Table 2: Institution of EFL enrollment grouped by ultimate degree goal
Table 3: Personal pronouns used by each participant indicating to whom benefits of
English study would accrue in response to the 7th survey item 142
Table 4: Identification of degree completion as a benefit of English study grouped by
chosen language of response144
Table 5: Identification of degree completion as a benefit of English study grouped by
institution of EFL enrollment 145
Table 6: The number of EFL study benefits listed by each participant in response to the
7th survey item
Table 7: Benefits of EFL study as reported through surveys
Table 8: Self-reported fields of study

List of Figures

Figure 1: A visit to Rafael and Teresa Tabango in Otavalo, Ecuador xi
Figure 2: The five-phase information development life cycle presented by JoAnn T.
Hackos
Figure 3: The seven-phase project management cycle waterfall presented by R. Stanley
Dicks
Figure 4: Honolulu, Hawaii, USA 100
Figure 5: Coex Mall and Coex Tower in the Gangnam District of Seoul, South Korea 101
Figure 6: Ibarra, capital city of Imbabura Province, Ecuador
Figure 7: The campus of Universidad Estatal de Cuenca
Figure 8: The campus of ESPOCH in Riobamba 105
Figure 9: The campus of PUCE-SI 106
Figure 10: The organizational flow chart for the higher education EFL curriculum
development/information development team as proposed for implementation in Ecuador
by the author of this thesis

Chapter 1: Introduction

Prologue: Teaching English in a South Korean hagwon, 2005

A major recession in my native northern Ohio and a need for steadier employment pushed me to leap into the unknown. Almost as soon as I responded to a message from a recruiter, I was whisked across a continent and an ocean to an airport in Incheon, South Korea, where the owner, *wonjangnim*, of a private academy, *hagwon*, stood next to her husband who held a sign with my name on it. The use of the passive voice is apt, as I did feel like an object being acted upon rather than an entity with agency. By the time I met them, it was 10 p.m. on March 1st in 2005, which happened to be the day after February 27th that year, as one day from my calendar was confiscated by the International Date Line. Looking through tinted windows from the back seat of *wonjangnim*'s Hyundai, I could only see points of light in a darkness without form beyond the patch of freeway pavement illuminated by the car's headlights.

It was after midnight, in the wee hours of March 2nd, that we reached Cheongju and the efficiency apartment that would be my new home. The darkness took form, finally, as an urban landscape made of steel, stone, tile, and glass. Alone in bed (*chimdae*, with mattress and frame, not *ondol*, bedding on the floor), I felt as though I were staying in an upper-floor motel room, not only because of the smallness of the space, but also because the beams of a streetlight that penetrated past the edges of the window blinds served as a nightlight that I could not switch off. I slept about three or four hours before I was carted off to the *hagwon*. My urban surroundings appeared stranger in the daylight than they were at night. The first thing we did after entering the *hagwon* was take off our shoes, place them in a cubby hole, and put on some slippers. In some classroom spaces, we sat on floors, rather than chairs, so the floors had to remain clean, hence the quarantine area for street shoes. I could barely stick a couple of toes in the tips of the fabric slippers, and my heels draped way off the ends. With just socks, though, the floors were too slick. I brought my own bedroom slippers from home and kept them at the *hagwon* thereafter, just to have footwear with traction that fit.

English was just one of several subjects taught at the *hagwon*. Only two coworkers spoke English, and I was the only foreigner. Adults about town rarely knew enough English to converse with me. The few English-speaking foreigners I met ordinarily worked a much different schedule than mine, for they were teaching older students, while I taught mostly pre-school students. My work hours, to start with, were similar to office hours in the USA, 9 a.m. until 6 p.m., with a lunch break. My free time in the evenings, which other foreigners coveted, was of not much use to me for most evening entertainment revolved around alcohol, something I never drink. I could only bring two suitcases with me across the ocean, so I could not resort to my usual hobbies. In other words, my time off from work was my solitary bored-out-of-my-skull time and my work time was my interactive fun time.

The *hagwon*, leveraging the competitive advantage of having an American on staff enrolled more students as months passed. My work hours expanded, mostly to accommodate the addition of older students. The daytime enrollment of pre-school students also grew.

The highlight of the expansion, though, was a new daytime class added for twoand three-year-olds freshly potty trained and no longer in diapers. We called their class the Duckling Class. These tiny wellsprings of joy were learning English at the same time they were learning Korean. Each activity could be pursued for only five minutes before giving way to the next activity due to the short attention spans of the students at these ages. We would color letters of the alphabet and images of objects that, when spelled out as words, used those letters of the alphabet to start those words. We would sing songs with motions matching the verbs of the songs. I would read them stories like "The Three Billy Goats Gruff" (their favorite, by far), "Little Red Riding Hood," and "Goldilocks," while showing the artful storybook pages, pantomiming, adding sound effects, and varying my voice according to the characters doing the speaking. We would gaze out the window to talk about the weather, to distinguish cars from trucks and buses on the street below, and to call out whatever colors we saw. We could play games, play with toys, or play "make-believe." We could return to prior activities, too, so long as we kept switching activities every five minutes.

Perhaps the most frustrating aspect of teaching was the use of inferior textbooks. *Hagwons* charge tuition, and textbooks are an additional cost parents have to bear. The best books are too expensive and the affordable books are flawed in many ways. This was not so much the case with the Duckling Class, for, aside from storybooks, where I could take the liberty of narrating a little bit differently if the text were flawed, most books displayed words in isolation paired with images depicting them. Also, cultural mismatches between text and student did not matter as much with these little ones. With older students, cultural mismatches may make it more difficult to tap into prior knowledge. They exist in one paradigm while the portrayals in the books are set in an alien paradigm. With the Duckling class, paradigms were just forming. The Ducklings were also gaining the primary knowledge that in future years would become their prior knowledge. These Ducklings would clearly gain an English language proficiency advantage over their older counterparts.

Nonetheless, from time to time, even the youngest students need cultural brokers, brokers who will supply the cultural capital that is missing in order for a complete understanding of a concept embedded within an unfamiliar culture. Alas, one book read something like this: "One, two, tie your shoe. Three, four, shut the door. Five, six, pick up sticks. Seven, eight, lay them straight. Nine, ten, begin again." Who, in South Korea, ties their shoes? They slip shoes on and slip shoes off whenever they go outside or come indoors. Those shoes have no laces. Though the nice rhyming scheme can help with counting to ten, I still felt like tossing the book aside as irrelevant to the students. But if I did that with every book at the *hagwon*, based on criteria of cultural relevance, few books would be spared. I decided to take them on a miniature field trip out to the street shoe quarantine zone each time we did this activity so that I could show them that I have to tie my quaint shoes to put them on. For their amusement, I would place a frayed end of a shoelace, the aglet worn away long before, in their fist that they can pull upon to untie the knot with one little tug that took me so many maneuvers to tie in the first place. They would giggle at undoing what I did. Their laughter would assuage my tendency to groan at ill-suited instructional materials, temporarily. Still, the matter weighs on my mind.

An Ecuadorian Presidency That Became a National Era, 2006-2017

The production of the final draft of this thesis occurred during and just after the closing months of the presidency of Rafael Correa, who has served as the chief executive of Ecuador since 2006. The date of presidential succession was May 24, 2017. The 11year length of Correa's term in office was unusually long, but a rewrite of the nation's constitution restarted the clock on his time served as president. Aside from constitutional reform, Correa's presidency was marked by the introduction of a social safety net for some of the nation's poorest citizens, a significant tax hike, heightened levels of mineral extraction (Keen, 2013; Zaitchik, 2013), major infrastructure upgrades, (Prada-Trigo, 2016) and very ambitious education reforms (Bernaldez, Harris, & Raffo, 2014, March).

Purpose

The main assertion of this language policy case study is that Ecuadorian students enrolled in university-level classes of English as a foreign language (EFL) are currently the least privileged of the stakeholders involved in EFL curriculum development, and that such should not be the case. The other EFL curriculum development stakeholders profiled in this study are higher education institutions (HEIs); educators, who are not necessarily employed by HEIs and not necessarily filling the role of EFL classroom instructors—though those certainly are included under this term; textbook publishers and other providers of instructional materials—outsourced rather than in-house; sponsors of the private HEIs in Ecuador—with the Roman Catholic Church being the most prominent among them; and the Ecuadorian national government, the chief sponsor of the public universities, regulator of all HEIs, and lead actor representing the collective interests of the people of Ecuador). The main remedies advanced in this study are the employment of technical communicators to manage the collaborative aspects of curriculum development among stakeholders and the repurposing of the information development model (a documentation process most commonly associated with advances in high tech industry) through adaptation for use as a curriculum development process framework. Information development has already been used in textbook publication, but by publishers, not curriculum developers. The chief anticipated outcome of the adoption of these remedies is that the English language will prove to be more useful to Ecuadorian university students, according to their expressed purposes for learning English, than it is under current conditions.

The design of this study is a transformative case study of language policy intended to benefit a less-privileged population (in this case, the EFL students). A convenience sample survey administered in late March 2013 to 279 EFL students enrolled at three Ecuadorian universities generated quantitative and qualitative data primarily in response to a prompt inquiring about the benefits that students hoped to obtain from their study of English. This research was approached from an etic, or outsider, pragmatic, or most workable rather than most ideal, perspective and culminates in policy proposals, thus it is also considered to be policy research.

Setting

The Spanish language word for "equator" is *ecuador*. The official language of Ecuador is Spanish. Ecuador is a less-developed nation located in the northwest quadrant of the South American continent where the line of zero degrees latitude crosses the Pacific Ocean coast of South America. The data-gathering site visits were in the heavily populated Sierra region of Ecuador. This region may also be referred to as the highlands, the Andean Plateau, or the Andes Mountains. The Sierra region extends from Ecuador's northern border with Colombia down to its southern border with Peru. To the east of the Sierra, also hemmed in by Colombia and Peru, lies a portion of the lightly populated lowlands of the Amazon Basin. To the west of the Sierra are the heavily populated lowlands along the Pacific Coast. To the west of Ecuador's mainland, in the Pacific Ocean, lies an archipelago known as the Galapagos Islands. The nation's largest city, Guayaquil, is located on the Pacific Coast. The capital and second largest city, Quito, is located in the Sierra (Embassy of Ecuador, 2017).

Kachru (1996) categorized the world's nations according to their relationship with the English language. Kachru would classify Ecuador as an expanding circle nation, as he would classify the vast majority of the nations of the world to be. Within the expanding circle, knowledge of the English language is not common, but it is growing, for English is the primary language of international commerce and discourse—the de facto lingua franca of the world. English is the language most commonly spoken as a second (L2) or third language (L3) even though other languages surpass English spoken as a first language (L1) (Ostler, 2005). The United Kingdom, the United States, Canada, Australia, and New Zealand are Kachru's (1996) inner circle of English-speaking nations. Kachru's outer circle nations have a long history of extensive use of English, and some examples would be Ireland, Jamaica, Ghana, Bahamas, Belize, Guyana, India, Nigeria, Barbados, Singapore, and Kenya, though there are others. The combination of inner circle and outer circle may alternatively be referred to as "Anglophone" nations.

The latest education reforms of the Rafael Correa presidential administration were the setting of new benchmarks for English language proficiency that secondary students must meet prior to matriculation and the selection of EFL textbooks for use in all of Ecuador's primary and secondary schools. The new English language proficiency mandate for secondary students takes effect in 2025. Prior to this, the Correa administration began regulating the nation's HEIs for the purpose of quality control. HEIs not meeting the quality control benchmarks are granted probationary status for a specified period of time to meet the performance targets, but if progress at the end of the probationary period is not substantial enough, such HEIs face the prospect of permanent closure (Neuman, 2012, March 1). The government greatly reduced the student out-ofpocket costs of HEI enrollment (Ponce & Loayza, 2012). The government set English language proficiency benchmarks for those entering the ranks of primary and secondary school teachers. Likewise, meeting English language proficiency benchmarks became a requirement for graduation from any Ecuadorian university, public or private. The government selected EFL textbooks for use in all of Ecuador's HEIs. The Correa administration phased in a requirement that HEI faculty possess an advanced degree—a mandate in effect as of 2017. The Correa administration articulated the expectation that HEI faculty engage in and publish research (Van Hoof, 2015). The Correa administration increased the pay of classroom teachers at all levels—primary, secondary, and tertiary. The Ecuadorian government built five new universities—each covering a different range of academic disciplines—from the ground up to be the most modern education facilities in the nation. The Correa administration implemented education reforms suddenly and in rapid succession with the goal of raising the prestige of Ecuadorian universities in hopes

of being regarded as the best in South America within a few short years and, with continued improvement over time, of eventually competing with the best HEIs in the world.

Needs and the Research Question

Though one may question whether the educational reforms, particularly the EFL mandates, are compatible with the stated center-left political views of Correa's administration, the political substance of the matter is not central to this study. Instead, the assumption remains that the government, even with the new administration, will not repeal its mandates. Therefore, the recommendations advanced at the end of this thesis preserve the mandates.

Aside from the Roman Catholic Church and the students, the other stakeholders set the objectives for EFL courses at the university level in Ecuador. Evidence presented within this thesis points toward apparent discrepancies between students' EFL learning objectives and the objectives set by the other stakeholders. Furthermore, this thesis contains evidence that many currently available instructional materials often do not connect to students' backgrounds and prior knowledge. A convenience-sample survey connected to this study sought to learn the benefits that the surveyed Ecuadorian university-level EFL students wished to obtain from learning English. Even from such a small sample (two hundred seventy-nine participants at just three HEIs), the survey revealed wide-ranging differences between the students, themselves, as to what they hoped to gain from learning English, let alone differences with the objectives set by the other stakeholders. The discrepancy appears to be widest between publishers' objectives and students' objectives, for many of the publishers' objectives are met when their products are sold, which is prior to students' use of those products. In fact, the evidence indicates that the publishers' products existed and were marketed without prior inquiry into the objectives of the students. Despite the variations in the students' objectives, they must study out of the exact same textbooks as all the other university-level EFL students due to a pre-emptive textbook selection decision made by the national government that was communicated to all of the HEIs. The textbooks selected may be appropriate instructional material for reaching some learning objectives, but evidence abounds that the textbooks are poorly suited for reaching a significant number of other learning objectives.

The government, the HEIs, and the EFL educators can only meet their targets if the EFL students achieve them, so clearly the students are the most important stakeholders. Because second language (L2) acquisition is a process requiring exertion of effort over a relatively long stretch of time, motivation aids learners and lack of motivation hinders learners. The students at the tertiary level are adults, thus they are legally able to act on their own behalves, individually, except that the tertiary-level EFL curricular development decisions in Ecuador are made by the other stakeholders on the students' behalf, collectively. If student motivation aids second-language acquisition, and if students are capable decisionmakers, then heightened student achievement might be realized if students helped shape curricular decisions based upon disclosures of what may motivate them. No mechanism is in place to allow for such.

Little evidence exists that pre-emptive national educational mandates of any sort, anywhere, result in the mutual satisfactions of both students and nations, yet Ecuador is not alone in pursuing educational objectives through mandates. At the tertiary level, the national objectives pursued often include emulation of the best features found in the HEIs of the United States, and this is also true of Ecuador's objectives. However, the HEIs of the United States were not shaped by national mandates. The HEIs of the United States are largely autonomous. Within the United States, HEIs compete to attract students, so HEIs tend to be responsive to students' expectations. Degree requirements in the United States are, for the most part, made at the institutional level.

Within the body of research readily available to those within the profession of teaching English to speakers of other languages (TESOL), one may find copious amounts of literature about instructional strategies that are responsive to the needs of English-language learners (ELLs), but these strategies are often deployed at the classroom level. Much of the TESOL literature on curriculum design originating in the United States presumes that curricular decisions in tertiary education are made at either the instructor level or at the institutional level, not on a systemic level or on a national level.

The research question, then, is this: How can university-level EFL student stakeholders in Ecuador obtain a powerfully influential voice in EFL curriculum development at a systemic or even national level in a manner that yields outcomes that all stakeholders might find to be mutually satisfactory?

Solutions

The thesis genre within the TESOL discipline would ordinarily not presage the findings of the study within the introduction and would typically reserve recommendations for the final chapters discussing the findings. This case study, though,

is part proposal, as befits policy research, plus it is somewhat interdisciplinary. Proposals do summarize solutions within the introduction and solutions are often coupled with the needs statements (Mikelonis, Betsinger, & Kampf, 2004, p. 42). I have endeavored to conform to thesis conventions inasmuch as feasible.

Collaboration between stakeholders would be required to achieve EFL student outcomes that are mutually satisfactory. To ensure collaboration, someone must play the role of collaborator-in-chief. If a stakeholder is collaborator-in-chief, then that stakeholder gains an outsized advantage over the other stakeholders in setting agendas. Collaboration requires communication. The communication needed in collaborative efforts needs to be copiously documented, accurate, precise, and made accessible to all. Technical communicators perform such functions. Furthermore, if a technical communicator were collaborator-in-chief (instead of an actual stakeholder), then the advantages accruing to some stakeholders over other stakeholders may not be so outsized.

The processes, tools, skills, and roles of technical communicators are highlighted within this study so that as the deficiencies of tertiary-level systemic EFL curriculum development are revealed, the ways in which technical communicators are able to address those deficiencies become apparent. English has become the language of technological innovation, and the acquisition of English has become imperative to many national governments for that very reason. But English acquisition, itself, is not the key to innovation. Agile information development is a process of innovation. English-language technical communication is the key to agile information development. If Ecuador employs technical communicators to work with subject matter experts and stakeholders, it can innovate beyond what publishers and educators have been able to do with EFL curriculum development thus far. As the EFL educators, as subject matter experts, gain experience working with technical communicators using an adaptation of the information development model, they will begin to be able to develop an EFL curriculum that would enable English-language technical communication, including agile information development, to be taught as an academic discipline within Ecuadorian HEIs.

Agile information development requires user input throughout its recursive process. Innovation does not gain traction unless users are attracted to it. In the curriculum development process, classroom instructors are the internal end users and students are the external end users. Without technical communicators and their processes, tools, skills, and roles, those who have worked at developing curricula have not succeeded at appealing to external end users to the extent they should have. Agile information development starts with gathering data about the external end users and continues with gathering user data throughout. Technical communicators would make contact with EFL students at the very outset to gather data. The curriculum that gets developed would be a curriculum that contemplated student needs from the outset.

What the Ecuadorian government really wants from EFL instruction is an opportunity to be an international leader and innovator. If all the students reached the mandatory English language proficiency targets set by the government, Ecuador would still fall short of being an international leader and innovator. So, even the national government, as a user of the EFL curriculum for its own purposes, does not fully realize what it needs the English language to do for the nation, but technical communicators who understand their users will be able to help Ecuador sort through all of that. In the long term, widespread English-language technical communication competency across Ecuador holds the key to the nation's transformation. In the short term and beyond, technical communicators, in collaboration with all of the stakeholders, can empower students to claim the benefits they desire to obtain from EFL study.

This thesis was not originally intended to be a policy proposal. Some assumptions were made preliminarily that turned out to not match the actual facts. After learning this, my options were to throw out very interesting data and start over or follow the research wherever it led. I chose to follow the research. The assumption that there might be a disconnect between students' prior knowledge and the EFL curriculum in existence proved to be true. An assumption that academic freedom, institution autonomy, and faculty autonomy resembled the US paradigm proved to be inaccurate because of national reforms. Most crucially, an assumption that EFL study was optional was not the case at all. Informing individuals about research observations would not be fruitful for individuals who possess limited agency, only systemic-level decision makers.

The recommended solutions appear in Chapter 6, the chapter on discussion, which is the concluding chapter. Chapter 2, which immediately follows this introductory chapter, is the literature review chapter. The intervening chapters are the chapter on Ecuador, Chapter 3, the chapter on methodology, Chapter 4, and the chapter on findings, Chapter 5.

Chapter 2: Literature Review

The field of technical communication is very wide, so decisions must be made about inclusion and exclusion for the purposes of this thesis. The chapter begins with the choices for inclusion.

Subject matter experts are able to design products within their realm of expertise, but such products might not have broad appeal to the layperson. When technical communicators engage with the subject matter experts that are developing products, they do so through a tandem process called information development. For this thesis, curriculum is the product, therefore curriculum development is the product development and curriculum designers are the subject matter experts. Much of the early part of the chapter explains the information development processes and technical communicator roles that will support the subject matter experts.

The chapter transitions from what technical communicators can do to support educators into education, itself. The remainder of the chapter is devoted to aspects of education relevant to this study. Those topics include curriculum, higher education, theories and research about learners, second language acquisition, common approaches used in the teaching of English to speakers of other languages, and the rhetoric of textbooks.

Selected Technical Communication Processes

"As technology advances, so does the gap between the people creating the technology—a group called *subject matter experts*, or SMEs, who are frequently but not

always engineers—and the users of that technology, called *end users* or simply customers or just lay audiences. This gap has brought about the field of *technical communication*, which is communicating expertise to less informed audience members so that they can understand" (Amare, Nowlin, & Weber, 2011, p. 3).

Technical communicators are problem solvers, but capturing all the detailed specifics or charting the vast outer reaches of this varied and ever changing profession has proven to be an exhausting but never yet exhaustive task (Johnson-Eilola & Selber, 2013). Selection of the skills, processes, roles, and types of documents to be disseminated (such documents are often referred to as "deliverables," whether for internal or external audiences, whether for expert or lay audiences, and whether for global audiences, local audiences, or audiences anywhere in between) from the realms of technical communication is necessarily an author's (my) prerogative so that focus may be maintained throughout the body of text. Hence, for the purposes of this thesis, the selected skills are expert documenting, researching, editing, proposal writing, indexing (coding for database storage and retrieval), conducting usability studies, managing projects and portfolios, and collaborating. The selected processes are project management, proposal writing, technical editing, and the parallel processes of product development (in this case, curriculum development) and information development. The technical communication roles needed to perform these processes are project manager (including assistant project manager), collaborator-in-chief, proposal writer (including grant writer), technical editor, indexer, usability expert, and, from outside the field of technical communication, subject matter expert (SME). For this thesis, all of these roles, from project manager to SME, are information developer roles. Some of the deliverables

produced and disseminated during these processes are plans, plan revisions, meeting minutes, progress reports, internal memos, correspondence, usability studies reports, research proposals, research reports, grant proposals, budget proposals, requests for proposals, contract bids, expense reports, audit reports, problem resolution reports, design drafts, feedback forms, team evaluations, and, most importantly, curricular materials for the use of teaching EFL (TEFL). However, this is not an exhaustive list, nor will all the deliverables on this list receive further description here.

Product Development and Information Development

It is important to note that product development—handled by a technical team of subject matter experts (commonly, highly specialized engineers)—and information development—handled through collaboration with all stakeholders with technical communicators at the core of the network—are linked to each other and move together in a parallel direction. Technical communicators have refined methods of information development that coincide with organizations' product development. While engineers may invent a new device, the technical communicators produce the documentation that tracks the development at every step of the process. For the purposes of this thesis, because the product under development is an EFL curriculum, the product development, as a parallel process to information development, will actually be curriculum development. Because curriculum development substitutes for product development, as one reads through this thesis, one should envision substituting a curriculum development organization, such as an organization within a governmental education ministry, when organizations involved in product development are referenced. Likewise, one should

count curricular and instructional materials among the deliverables, blend educational research in with usability studies, and place educators in the SME roles as substitutes for engineers.

Single Sourcing for the Purposes of Content Reuse

Single sourcing technology makes information development possible. JoAnn T. Hackos is the expert of information development chiefly relied upon for this thesis. Her book on the topic (2007) spans over six hundred pages. If her book is applied fully and faithfully, technical communicators become information developers, from the project manager on down (though SMEs are customarily not information developers).

Single sourcing means that all of the information produced is placed in just one repository, one database; and all information products disseminated, all deliverables, are extracted from this single repository (Critchlow, Ray, & Ray, 2000). If one were to make an alphabet soup [Note: The soup analogy used in these paragraphs is of my own making, while the principles illustrated are those articulated by Hackos.] and then have a technology to scoop out just the letters needed to spell certain words to meet one demand and then scoop out just the letters needed to spell certain words to meet another demand, and so forth, then that is an analogue to single sourcing. Information developers start by adding the letters to the soup. The soup represents the single repository, the single source, the single database. The letters represent topics.

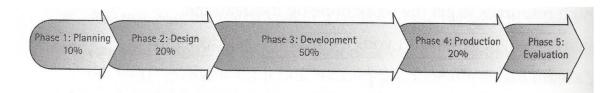
Because the building blocks of information within the single source are topics, the decisions about what topics need creation are given the term of topic architecture. Information developers must also extract multiple information products from this single source that they have constructed. The extracted information to be distributed, the deliverable, may be disseminated in print or online, or via other media (though print and online are the two most common modes of output). Print output may be achieved from a desktop rather than needing to be sent off to a publisher.

Strategically, organizations choose visual displays that convey competence, promise user-friendliness, and promote brand image. The organization's standards for composing the content that gets entered into the single source—such as preferred phrasing, delineation between topics, or determination of the appropriateness of abbreviating instead of spelling out terms—is set forth in a "style guide." The "manual," so to speak, on how the organization has chosen to visually display its output is called a stylesheet (which may be considered either a subset of or a companion to the style guide that regulates the readability, aesthetics, and organizational "branding" of any given deliverable, including such things as preferred typefaces, company logo placements, white space distribution, and image arrangements within a document).

All of the decisions about the hierarchy of information, how it is input, how it is stored, how it is retrieved, how it is output, are referred to collectively as information architecture. Hypertext markup language (HTML) is added to information content so that it can be disseminated online. Without HTML, the content could only be printed. HTML tags the content with instructions for how it is to be displayed online. XML, or extensible markup language, also tags content, but it tags it by sorting mechanisms, like topics and keywords (World Wide Web Consortium, 2013). HTML is prescriptive. XML is flexible. An organization can make its own decisions on the creation of XML tags. DITA is Darwin Information Typing Architecture (Russell, 2007) that works with

the XML tags to retrieve the desired information from the single source. So, in the soup analogy, it does the scooping. The bowl, the container of the soup, is a content management system. Various companies are vendors of content management systems. Organizations should choose content management systems carefully because their proprietary nature means that they are not likely to be used interchangeably or swapped out for another inexpensively.

The most important consideration is the user. The soup must always be tasty to the person who eats it. If the eater no longer has an appetite for the soup, then the soup is wasted. So long as the appetite remains, information often gets reused. Feedback loops are necessary to gauge user experiences for use in improving the recipe and making the soup tastier. Rather than write the information anew each time it is used, an information development team can create information topics and merely retrieve them from the single source each time the information is in demand. The reuse also makes the organization's deliverables consistent, as if the organization, itself, is an author. Updating becomes easy. Outdated information is sifted out and archived. New information requires only an insertion of snippets, as the bulk of information on the topic likely already exists in the single source. The construction of templates for common genres of output becomes easy, and so does filling in the templates. Duplication of effort is eliminated. Time and money are saved.



Phases and Cycles of Information Development

Figure 2: The five-phase information development life cycle presented by JoAnn T. Hackos From her 2007 book, *Information Development*, page 318

JoAnn T. Hackos (2007) presents the information-development life cycle (Figure 2) in five phases: 1) planning; 2) design; 3); development; 4) production; and 5) evaluation but there are other information-development project management models that may work equally as well. R. Stanley Dicks pointed out that a cascading 7-step (Figure 3), or waterfall, heuristic represents the historically traditional documentation project management model consisting of: 1) planning; 2) research and information gathering; 3) composition and invention; 4) reviewing and testing; 5) revision; 6) production; and 7) dissemination. Dicks updates the traditional model by saying that each step does not reach completion before the next step gets underway. Steps overlap and project management is recursive. Recent variations on the model are called "agile." because the recursive process does not halt. Each new information product dissemination is followed shortly thereafter by updates mostly due to the quick turnaround needed with evershortening product life-cycles in an ever-accelerating technological revolution in the information age. Though both Dicks and Hackos describe the same activities within information development, some of these activities are invisible if one glances at the fivestep model advanced by Hackos, while the seven-step model advanced by Dicks is more revealing. Dicks' seven-step model fits better within this thesis, even though most of the admonitions about how to develop information come from Hackos.

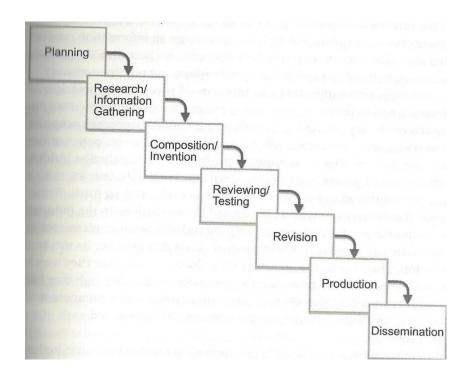


Figure 3: The seven-phase project management cycle waterfall presented by R. Stanley Dicks

From his chapter, "How Can Technical Communicators Manage Projects?" from the 2013 book, *Solving Problems in Technical Communication* edited by Johndan Johnson-Eilola and Stuart A. Selber, page 315

Both Dicks and Hackos implored project managers to not short-cut planning time in an effort to turn out a product faster. It is better to keep the pipeline open and repeat the processes on the way to continuing innovations than it is to reach completion on one innovation, decide that time has long passed for the introduction of a new innovation, and then jump-start another project management cycle by skipping over the planning phase. For Hackos' (2007) five-phase model (pp. 318-325) she recommends that a full 10% of a project's timeline be spent on planning. 20% of the time should be allocated to design, 50% to development, and 20% on production. She leaves 0% of the time for the evaluation because the product is already out the door, but the tools for evaluation were already created during the prior phases, so the feedback from product consumers starts streaming back in. She recommends taking quick action on the feedback as soon as possible and incorporating it into the planning of the next cycle.

The Information Process Maturity Model

Dicks (2013) highly recommended Hackos' detailed work on the topic, saying:

"Information Development [the title of the book Hackos authored in 2007] offers a complete, overall explanation for how technical communicators can manage their projects to achieve consistently high-quality results. Critics might argue that the system that Hackos describes is so complex that hardly any organization would ever agree to follow it. My experience, however, is that there are organizations that do nearly everything Hackos advocates, and that, more importantly, organizations that do very few of her steps usually produce inferior information products" (p.311).

Hackos (2007) provided metrics for assessing an organization's effectiveness with what she calls the information process maturity model (IPMM). Originally scaled from levels one through five, with five representing organizations performing at "optimal" levels, Hackos has added a Level 0, representing organizations operating at the "oblivious" level. Of this level, Hackos said an organization "produces technical information but does not recognize the importance of employing people who are experts in information development [. . .] If a Level 0 organization employs anyone to produce information products, the work is primarily dedicated to formatting final deliverables and correcting basic grammar and spelling" (p.38).

Hackos' Level 1 represents organizations that operate on an "ad hoc" level. Technical communicators are employed by the management of the technical team and report to them even though the technical team is ill-equipped to offer direction in the information development field. Product development and information development may not occur in tandem as there is little coordinating authority that can consolidate the disparate parts of the organization and standardize processes. (pp. 40-43).

Hackos' Level 2 represents organizations that operate at a "rudimentary" level, a level that is often unstable as it represents a critical stage of organizational maturity that can result in relapse more easily than it can push forward into a well-organized and reliable entity. A central production unit has emerged; the training of all staff has developed consistency in products and documents; the retention of data from existing projects has provided an information base for the planning phase of the next production cycle; and teams no longer work independently of each other without coordination. Testing processes are put into place for better quality assurance. True collaboration has not yet emerged, and Hackos' recommended that, to get to the next higher performance level instead of slipping back to Level 1, management identify a new product to be built from the ground up that can serve as a pilot project. A pilot project provides a rationale to scrap bad habits that hampered the organization in the past and adopt a new age of collaboration within the organization that touches every person in the organization and every stakeholder outside the organization. Rollout of a new product is, of course, the objective of all collaborators, but the real prize of the pilot project is realized if the new system of operating collaboratively takes hold and remains in place (pp.43-45).

Level 3 represents organizations that perform at the "organized and repeatable" level. The collaborative process is never abandoned even in the face of adversity. Documentation meets benchmarked industry-wide standards. Low-value activities eat up less time and work hours as clear sets of priorities emerge. The process becomes welldefined. All staff members understand what they are called upon to do. More attention is paid to adding value for the customers. Quality assurance measures are no longer circumvented. Usability studies now take place before and during the development process and not just after product release. Beyond documentation accompanying the development processes, technical communicators also work with customer support, marketing communications, training programs, contracts, and proposals (pp. 45-48).

Level 4 represents organizations that are "managed and sustainable." Information development management is given budgetary control over the organization. Reduction of costs and improved quality of products are easily achieved simultaneously. The workforce of the organization is rock solid. No turn of events destabilize the collaborative process. Research and data gathering processes are robust and full-fledged. The organization displays leadership in developing tools and technology strategies. The organization reaches out and learns as it does so. The organization goes to great efforts to understand the customers and align business priorities with customer satisfaction in mind. The organization adapts to the marketplace, the changes in technology, the trends in customers' tastes, and the competition from other organizations. Opportunities for career growth, for mentoring, for being mentored, and for leadership succession improve. The organization's profile rises and receives recognition. There are traps that a Level 4 organization must be wary of. Organizations at this level may become bureaucratically rigid and complacent. Products might no longer break new ground as the organization may decide that it can just continue to tweak what they have already been doing. The status quo may no longer be open to questioning (pp. 48-50).

Hackos admitted that she does not often see examples of organizations that are "optimizing," i.e. operating at Level 5. The workforce is self-actualized. Each member of the workforce fully knows the capacity within which they operate. They are creatively driven to maximize the performance of the organization within the roles that they play and they fully know what courses of actions will not advance the organization. They superficially appear to be working individually as a Level 1 ad hoc organization would, but closer inspection would reveal that they still very much act collaboratively—it is just that they do not need to hold hands to do so at this point. They use effective content management technological tools and automatically follow all best practices so that their time is not spent on grunt work. Their work time is available for customer research, competitive analysis, idea incubation, and continuous improvement. They know their customers very well. They even know the customers of the customers. They have visited customer work sites and have learned what advantages the customers endeavor to provide to the customers of the customers. In response to this deep customer knowledge, they each develop content that they know the customers will appreciate. These organizations reach such great heights of achievement that everyone else in the industry will point to them in order to inspire their workers and illustrate what is truly possible (pp. 50-53).

Rarity of Information Development outside the USA and Canada

In a passage about offshore (Hackos' book is published simultaneously at facilities in the United States and Canada, so that is the reference point for determining the meaning of "offshore") information development, Hackos noted that, in many parts of the world (she specifically mentioned "Third World" in this regard without attempting to delineate what constituted "Third World"), "the absence of a tradition of technical communication" makes everything "much more challenging," so she suggests referencing these levels of organizational maturity as a departure point (p. 54). First, assess the process maturity of the organization one is responsible for, and then one can determine the next steps the organization needs to take to head in the right direction.

To build on Hackos' observation about a general lack of technical communicators abroad, Matsuda and Matsuda (2011) wrote that a large number of students from abroad come to the United States to study engineering, business, or some other field of applied technology, and these students frequently take introductory technical writing courses to fulfill a requirement within their major field of study. It is true that English is the principal language of technical communication and that the United States is the leader in the field, but, because of the influx of international students taking such classes and because industry is global, technical communication faculty have made strides in internationalizing the curriculum. Yet, Matsuda and Matsuda easily found technical communication textbooks addressing the reading audience of technical communication students as if none of them were from abroad. Such textbooks treated working with foreigners as working with international colleagues, not as though the foreigners, themselves, might be technical communicators, thus heightening the sense of exclusivity, as opposed to diversity, within technical communication circles.

Project Management

Returning to information development, before outlining the role of project manager, the reason for not including the role of portfolio manager-a role Hackos (2007) wrote extensively about—in the recommendations at the conclusion of this thesis is that an organization cannot adequately support the role unless it has reached an IPMM rating of level 4. Multiple project managers would report to a portfolio manager, but a portfolio manager is invested with the authority to set the overall direction of the product development and information development processes. In an organization at level 3 or below, external actors set the overall direction of those processes. Advantages abound if the IPMM rating reached level 4, but Hackos noted that reaching level 4 is not common particularly because those external actors (in the proposed scenario, those external actors would include government officials, SME educators, and HEIs) typically resist relinquishing their decision-making authority. Still, adoption of the information development model may be worthwhile even if an organization only reaches level 3 because at least the process becomes well defined, the actions taken are organized and repeatable, the quality assurance measures are effective, and the end users' needs are foremost considerations.

Though a technical communicator's job title may be that of a project manager, if that technical communicator is the only one hired by an organization to do the work of technical communicators, then the title of project manager does not mean that there is a division of labor wherein others perform technical communication work under the direction of the project manager. Instead, all of the duties of a technical communicator in the workplace will be the work of the project manager. Only as an organization hires more technical communicators can that work be divided. But even the addition of other job titles within the field of technical communication and the emergence of defined roles do not guarantee that only duties within the job description will be asked of any technical communicator. If roles were ever to become rigid, then technical communicators would not be able to adapt to changing user trends, technological advances, alterations of processes and procedures, reconfigurations of the workplace, revisions of best practices and benchmarks, and restructurings of the larger organization. Technical communicators are to adapt to and aid with all of those transformations.

Hackos defined project management by quoting Adebeji B. Badiru, who, in 1993, articulated "Project management is the process of managing, allocating, and timing resources to achieve the desired goals of a project in an efficient and expedient manner. The objectives that constitute the desired goal are normally a combination of time, cost, and performance requirements" (Hackos, 2011, p. 315). Hackos added that information-development project managers "have two, often competing, goals: the efficient management of the project so that you reach your goals, and the successful development of information products that excel at meeting the needs of your customer and adding value to the product or service that your information supports" and that "you may find yourself with the responsibility for leading a team of individuals and helping them collaborate, innovate, and adhere to standards, process, and deadlines" (p.317). Hackos advised project managers to not get in the way of good work performed by good workers.

Though project managers need to have an eye for detail, they ought not to complicate the processes for those working on the project, but ought rather to manage the details, themselves, in support of the team. Hackos also admonished project managers not to use carrot-and-stick approaches to manipulate the behaviors of team members. Instead, project managers should seek to improve job satisfaction and minimize opportunities for worker frustration to take root. In planning how the team carries out a project, the project manager should leverage the strengths of each team member so that they all feel that they can contribute their best work. The love one has for one's job positively reinforces high performance the best.

Collaboration

Tandem processes require collaboration and coordination. The project manager plays the leading role in responding to and reconciling the interests of the stakeholders, coaching the team members, meting out collaboration assignments between team members, routing team communications, and disseminating information to internal and external audiences.

Hackos (2011) raised the prospects of challenges to collaborative efforts. In many organizations, a technical communicator is not hired with the expectation of working on a team. These are organizations likely rated at an IPMM level of one. The person making the hiring decision is often someone who knows little about the field of technical communication and who merely wants to hire a writer. Within such an organization, the writer is expected to work largely independently, partly because so few really know how to direct the work of a writer, as writing may be outside others' realm of expertise. Hackos also noted that writing is a career that attracts many more introverts than extraverts, so a writers' default preference may be to work independently. This quandary is certainly part of the difficulty in pushing a level two organization up to an IPMM level of three and part of the ease of sliding back down to a level one. Single sourcing technology requires the job of writer to be upgraded to information developer.

Hackos warned that there are costs associated to relapsing back to an organization where writers work alone to produce information products. After all, organizations at the highest IPMM levels are not the ones most threatened with extinction by global competition. The ones at the lower levels are the ones most at risk of collapse. If management has to resort to "burning platform" (pp. 226-227) tactics to persuade employees to work collaboratively, so be it. If the employees of an organization realize how perilous their predicament is ("downsizing, outsourcing, offshoring . . . breakup of the department . . . decrease in funding" p. 227), their reluctance to help each other out would make little sense. Collaborative work practices and single sourcing capabilities allow for savings of time, effort, and money. If rejection of collaboration is equated to rejection to saving time, effort, and money, then where does that leave an organization? It leaves them on a burning platform with no means of escape. Time, effort, and money are not endless resources. Collaboration is the only means of escape, and the better the collaboration works, the better the chances of reaching a point of safety.

Collaboration has gained traction, but collaboration is still not easily managed. "Over the past two decades, the time spent by managers and employees in collaborative activities has ballooned by 50% or more. [. . .] How much time do people spend in meetings, on the phone, and responding to e-mails? At many companies the proportion hovers around 80%, leaving employees little time for all the critical work they must complete on their own. Performance suffers as they are buried under an avalanche of requests for input or advice, access to resources, or attendance at a meeting," wrote Rob Cross, Reb Rebele, and Adam Grant for Harvard Business Review (2016, p. 1). But business "research [they have] done across more than 300 organizations shows that the distribution of collaborative work is often extremely lopsided. In most cases, 20% to 30% of value-added collaborations come from only 3% to 5% of employees" (p. 2). Cross, Rebele, and Grant articulated distinctions between "three types of 'collaborative resources' that individual employees invest in each other to create value: [...] *Informational* resources are knowledge and skills—expertise that can be recorded and passed on. Social resources involve one's awareness, access, and position in a network, which can be used to help colleagues better collaborate with one another. *Personal* resources include one's own time and energy. [...] Informational and social resources can be shared—often in a single exchange—without depleting the collaborator's supply. [...] Unfortunately, personal resources are often the default demand when people want to collaborate" (pp.2-3). The three researchers found that much of the work that employees asked for help on were tasks they could have completed on their own because the solutions they sought were ones they could have accessed in records that already exist. It was just the easy route to ask someone else rather than look it up themselves. Employees perceived to be the most helpful were those most likely to be overburdened. Women, "stereotyped as communal and caring" (p.7), are more likely to encounter demands that cross the boundary from informational and social resources to personal resources. Those that yield up personal resources are more likely to experience burnout, and may try to

compensate by engaging less. Even engaging less will not allow job satisfaction to rebound. The employees taking the easy routes are not the ones most likely to leave the organization of their own volition. The helpful ones who feel overworked by too many others making requests of them are the ones the organization is most likely to lose. Not all demands upon personal resources are equally draining. When a recipient of a request for help is asked because the contribution they can make is unique, the recipient may even be energized by the request. "Training, coaching, and mentoring" (p.5) are less stressful activities. Conversely, when the recipient is asked for help that others were able to render and the requests come from whomever, wherever, whenever, the recipient likely feels sapped.

Cross, Rebele, and Grant offered a number of ameliorative suggestions ranging all the way from changing individual behavior to changing organizational structure.

- Do not hold routine meetings just to see if someone has anything to say. Hold meetings when there is a meaningful agenda to pursue and someone is placed in charge of preparations for what is presented there.
- Map the office floor space so that those who need to collaborate with each other most often are in close proximity to each other.
- Track collaborative successes and offer recognition for good teamwork rather than only doing so for individual achievement. Include collaboration effectiveness and efficiency among the evaluation criteria for employee performance reviews.

- Minimize the bureaucratic regulations that require multiple approvals in order to proceed with a course of action so that workers can accomplish much on their own.
- During hectic, high-volume, high-traffic organizational activity, delegate a person, perhaps on a rotating basis, to be available to all other team members needing assistance by temporarily suspending that person's other ordinary work duties.
- Rein in chronic helpseekers by setting protocols about when and why requests for assistance are appropriate and train overworked request recipients how to sift through the requests to know which ones to act on promptly, which ones to place low on the priority list, and which ones to decline outright.
- Designate a leader atop the organization to be collaborator-in-chief, to dedicate most of that leader's time to collaboration. Other time-consuming activities are to be assigned to someone else.

Technical Editing

In the information development model, everyone is expected to collaborate, but for the iteration presented in this thesis, the project manager and the technical editor positions are the ones that carry the heaviest collaborative burdens.

"Technical editors perform some or all of the following duties:

- "Copyedit and proofread.
- "Revise documentation text based on the levels of edit.

- "Revise documentation graphics for technical accuracy, appropriateness, and visual readability.
- "Build relationships with the SMEs in order to better understand the technology, and with the writers in order to produce more effective documentation for the end user.
- "Research the end user's demographics and characteristics to discover how they will be using the technology.
- "Perform or assist in usability testing by end users, to let the SMEs and the technical communicators know what is ineffective about the documentation or about the product itself.
- "Create documents that assist in effective future document production, such as policy handbooks and company style guides.
- "Protect the end user from harm and the company from lawsuits by enforcing ethics.
- "Be aware of global issues such as language and cultural differences.

"As you can see, technical editors do a lot more than just check grammar"

(Amare, Nowlin, & Weber, 2011, pp. 3-4).

To that third to last item, in the realm of information development, Hackos (2007) might add information architecture in with policy handbooks and company style guides. It might also be said that a technical editor, with the possible exception of the project manager's job, knows everyone else's jobs in addition to their own. "Job titles alone tell you little about the editorial roles and responsibilities in an organization, because each organization has its own in-house nomenclature" (Amare, Nowlin, & Weber, p. 7). Despite the existence of editors, much of the responsibility of error-free accuracy remains that of the writer. Editors typically conference with writers and recommend changes, but making changes is a writer's duty. If an organization is large enough to employ several editors to the point of allowing divisions of labor between them, the job titles of editors may become more specific:

- *"Proofreader*—checks for grammatical, mechanical, and spelling errors, but often has no authority to make changes.
- *"Copy editor*—proofreads, checks for conformity to guidelines established by the agency, and generally performs line-by-line editing. Copy editors may work with writers but have little authority to make major changes.
- "*Literary editor*—acts as the reader's advocate by recommending changes to the writer. Literary editors may have considerable authority over a manuscript.
- *"Developmental editor*—actively participates in the production process by consulting with the writers throughout the planning, organizing, and final production stages of a document.
- "*Managing editor*—supervises the production process and manages other editors" (p. 8).

In the information development process, especially as conceived in this thesis, the job description of the developmental editor is most appropriate. The level of collaboration necessitates it. According to Amare, Nowlin, and Weber, a technical editor may be able to support as many as nine writers.

SME and Information Developer Interactivity

SMEs do not frequently have writing responsibilities. Instead, they usually collaborate closely with writers, in this context, with writers who are information developers, so that the writers have access to the SMEs expertise.

Information developers, as writers working with SMEs, create the content, especially text, that will eventually be added to the database. There might or might not be a division of labor where SMEs or graphic designers create the graphics and the editors review them. Even within the information development model, temporary employees or even outside contractors might contribute graphics, but SMEs and information developers create the images when no one else is delegated the task. Content is created within the content management system. The information developer may add to a topic, but more than likely, when a topic was added in the first place, it was a selfcontained unit, so when starting a new project, adding a new topic is more likely than adding to an existing topic. The information architecture informs information developers of what the better choice may be. As conceived for this thesis, the SMEs, who are EFL educators, will be information developers guided by the technical editors. The two chief reasons are that 1) EFL educators know how to write well, perhaps as well as any technical communicator, unlike many SMEs in other settings; and 2) as EFL educators learn to use content management systems and gain experience in information development, they can expand their teaching repertoire when they, one might hope, rotate back out of the information development team to resume their work as HEI faculty members.

37

Indexing

Indexers are "Responsible for either completing the indexes for all deliverables or reviewing the indexes for completeness and accuracy. [They] may also prepare a list of common index terms across deliverables" (Hackos, 2007, p. 559). Indexers are part of the production team that prepares the deliverables for dissemination. Other job titles of production team members may be those of production specialist, production editor, vendor coordinator, and production coordinator, but, as with other information developer positions, there may not be enough employees to divide the labor that many ways. Still, the retrieval and production of deliverables are important responsibilities. With SMEs acting as information developers who generate the input and the technical editors collaborating closely with them, it would seem unfair to burden them with such large additional responsibilities that require a great deal of technical communication expertise, so, for this thesis, indexers are part of the information development team, but they handle all the production roles, perhaps even including the online output (though perhaps a web developer is added to the production team, or is hired on a temporary basis to initially set up the web products, with the indexers maintaining web products from then onward, or perhaps even outsourced, in which case the web developer(s) may be among the vendors that the indexers work with in the vendor coordinator role). Not only that, but indexers will likely be the key custodians of the repository, the database, the single source. However, once the deliverable is in its final form ready for printing and dissemination, if HEIs or individual faculty members have the tools needed for printing, it may be possible to transmit the deliverable in electronic form for those internal end users to print out as many copies as they like. If they do not have that capability, the indexers would do that

for them and arrange for an outside courier service to deliver the final product if the internal users are not capable of picking up the deliverables themselves. The reason for using the indexer job title for production team members is the emphasis it places on the most skilled tasks that matter the most in terms of usability of the final information products. Hackos wrote this about the work of indexing: "You will find that it is impossible to generate a good index on the first round. Even well-developed indexes will contain many inconsistencies: you will find both singular and plural forms of nouns, nouns and verbs used for the same item, spelling differences among words that should be the same, or problems with index levels that require rearrangements among primary, secondary, and tertiary index items. All of these problems and more appear in unedited indexes. If you do not have someone on your team who is knowledgeable about indexing, consider using an outside specialist or getting training in indexing techniques and best practices. Too often, information developers give short shrift to indexing, even though customers tell us that the index is essential to the usability of a document" (p. 560). Those are just the complications that may arise with printed output. Online output may also suffer from unedited or insufficiently edited indexes. When the overall usability of a document is compromised, the whole project may be a wasted effort if competitors take advantages of a team's weakness in this area. This is especially true when producing content for EFL instruction. The products must be of impeccable quality, for those products are to be exemplary standards for learning the English language. That being the case, the indexers need to be every bit as skilled as technical editors and perhaps even more skilled than the majority of EFL instructors at proofreading, though the indexers do not need to possess as high a level of people skills

as the technical editors do, as their roles carry a lighter collaboration burden. If the indexers see opportunities for the input of content to make indexing less problematic, they ought to touch base with the technical editors to raise awareness. Technical editors and project managers perhaps ought to spot check not just the deliverables, but the production processes themselves for quality assurance—but without constantly looking over the shoulders of the indexers, for there ought to be confidence in the competence of the indexers. If deficiencies in the deliverables are spotted by the usability experts, the whole information development project team should be informed promptly. User satisfaction makes the team competitive, while user dissatisfaction wastes the team's efforts, time, and funds—and could ultimately cost all of them their jobs. Because of single sourcing, even if more projects are added, headed by additional project managers, indexers may be added to the indexing pool and perhaps even be given more specific job titles, but there would still be just one production team, one single indexing pool, to serve all of the projects.

Proposal Writing and Grant Seeking

Proposal writers are technical communicators, but their job title is not usually included among those working in information development. A portion of the content that proposal writers create is reusable, so proposal writers should also benefit from single sourcing. The reasons for including proposal writers are elaborated more fully in the chapter on Ecuador and in the policy recommendations in the final chapter. Mikelonis, Betsinger, and Kampf (2004) provided an ample definition of proposal writing. "A proposal is a persuasive document that defines a problem or need, proposes a solution to that problem, and requests funding or other resources to implement the solution. [...] Academics often write proposals to fund their research or for faculty or curriculum development. [...] Sometimes, these proposals are called grant proposals. However, many sponsors award both grants and contracts. [...] Proposals are presented to foundations, government agencies, or philanthropic individuals—the sponsors—who are interested in solving the same problem as the individual or organization who prepared the proposal. [...] Grant seeking is a six-step process:

- 1. Identifying or recognizing a problem
- 2. Generating an idea to solve the problem (the solution)
- 3. Determining if the idea furthers the mission and goals of your organization
- 4. Researching potential sponsors to find a match between your idea and the sponsor's priorities
- 5. Designing, writing, and submitting a proposal that follows the sponsor's guidelines
- 6. Implementing your solution to the problem"

"People in for-profit businesses also write proposals, but the kinds of proposals they write are generally business proposals. Business proposals usually are not funded by foundations, but by internal sources, investors, venture capitalists, loans from financial institutions, or from the profits of the business." (pp. 33-34).

Technical Communicators Adapting within Larger Organizations

One challenge that confronts technical communicators at the outset is that organizations have unique cultures, environments, practices, and expectations that do not remain static. A higher education ministry in Ecuador would qualify as a unique environment, especially for information developers. If one adds SMEs and proposal writers to the ranks of information developers, the necessary adjustments grow even larger. Jim Henry (2013) provided technical communicators with encouragement and a strategy for adapting to work in an organization new to them. Henry recommended ethnology as practiced by anthropologists as a model for successfully navigating a new culture. Documenting is the most basic work of a technical communicator, and that is the most transferrable skill in treating the new workplace as a setting for ethnographic research. Henry defined ethnography as documentation of "the systematic study of a local culture through participant observation" (p.78). The ethnographic researcher, then, is a cultural participant, not strictly an outside observer. In cases where the researchers are participants situated within their home cultures, the prefix auto- is applied to ethnography to become autoethnography.

First, the would-be ethnographers must "experience the culture exactly as the others do" (p. 84), and take copious notes while doing so. This is what Henry refers to as "fieldwork." As the technical communicators participate in the workplace culture, Henry advises them to

"keep in mind the four W's:

- Who are the people in this culture and what are their job titles and duties? Who reports to whom?
- What is the organization's primary mission, and what are its secondary missions? What is its market niche and what kinds of writing (often called a deliverable) enable it to survive?

- When do processes ebb and flow? How are deadlines established and enforced?
- Where are people located physically in the organization (office locations and configurations can tell you a *lot* about cultural values), and where are their collaborators, intramural and extramural?
- How do technical communicators compose here? In teams? Individually? How do review processes take place? How does writing expertise take form in this culture?" (p. 82)

Dates should accompany observations noted. Henry recommended leaving room along the left margin of the field notes so that the technical communicators can annotate them to "[connect] the dots" (p. 83).

Another component of ethnography is to talk with and listen to culture members, which Henry called "interviews" even though many of the interactions might not be very structured. Henry advised transparency and ethics in the course of documenting interviews. Technical communicators should inform coworkers of their desire to take notes on what is said, and obtain permission to do so. While field notes might be jotted down hurriedly with further details to be filled in later, the notes from interviews must reproduce the dialogue very faithfully, in which case, technical communicators might do well to seek permission to record audio of meetings or allow coworkers to read over the technical communicators' notes to confirm their accuracy. More structured interviews should be scheduled in advance. Henry advised adopting a strategy of triangulation, wherein at least "three sources on a given topic" are compared to "see convergences and divergences" (p. 83). Henry cautioned, however, that triangulation is not to be used to

ascertain whether someone is telling the truth or a lie, but rather is to be used in recognition of the fact that any given topic is complex, thus worthy of study across all of its dimensions.

A third component of ethnography is the collection and analysis of "artifacts." Henry recommended, "Treat every document you encounter as data and make copies [. . .] that you can study later as part of your cultural analysis. In addition to such formal writing, collect informal writing, too: sticky notes, organizational charts, whiteboard diagrams (use your cellphone to copy them), *anything*" (p. 87). Artifacts can be any input that technical communicators examine for cues to meanings and functions.

The final component of ethnography is writing, whether for research publication or for personal reference. Henry expounded upon writing for personal reference, akin to keeping a journal. He advocated for permanent preservation of such journals. He wrote, "Think of these memos as a *working paper* to which you can add as you go and that will serve as an invaluable documentation of your own enculturation at your place of work" (p.88).

Usability

Team members may not be end users, especially not external end users, but they are users, for they are on the receiving end of internal deliverables, such as style guides, memos, meeting minutes, progress reports, and usability reports. User profiling is applicable to team members, and Henry's ideas for ethnography as a way to learn the work environment is an excellent way to profile the internal users. "Usability is *the extent to which a product can be used by specified users to achieve specified goals with effectiveness, efficiency and satisfaction in a specified context of use*" (Amare, Nowlin, & Weber, 2011, p.416). Usability studies are what competent technical communicators do. It is what separates them from the mere writers found in organizations rated at an IPMM level of one. Proposal writers may call it audience analysis (Mikelonis, Betsinger, & Kampf, 2004, pp. 20-22), but that is just user profiling by a different name. Even if SMEs like software developers know how to write and conduct internal beta testing, "they often don't understand the value of testing user guides and online help systems, or they don't understand the difference between usability testing and other forms of testing. They may think it takes too long and costs too much to fit into the project's schedule and budget," wrote Amare, Nowlin, & Weber in their book, *Technical Editing in the 21st Century* (p. 415).

Antonio Ceraso (2013) shared a scenario fitting the description. A technical communicator, given the pseudonym of Dave, at a small company that shifted from what Hackos would call an IPMM level of zero to an IPMM level of one when they shifted Dave from customer support to writer in response to customer complaints about a manual that accompanied the company's product, encountered resistance from the two company owners when he proposed testing for usability beyond internal beta testing. Though the owners denied his request, he still had contacts back in customer support who would collaborate with him. He would inquire with them about what they were hearing from customers. Dave, himself, had built relationships with customers when he was in customer support, and he remembered one that he could place an informal call to that would give him feedback. Dave planned to approach the owners again because a new

version of one of the main products was coming out, and the last version had glitches that required updates to the user manual, causing the company to spend extra money on printing. His request would be modest: Just create space at the company website for a user forum or at least a mechanism for users to voluntarily provide feedback. There might be some cost associated with setting that up, but the owners probably had not forgotten the barrage of customer complaints and the added printer costs from the last version. With advance feedback from the website, the company should be able to notice potential obstacles that they could start working to overcome before the new version went to beta testing and save themselves from making such costly mistakes again. So, without many resources at his disposal, Dave still leveraged resources at his disposal to learn something more about the customers and their experiences with the company's products (pp. 237-239, 253-258). Usability testing may be quick, inexpensive, and not anchored by any rigorous scientific research methodology, yet still yield information.

Amare, Nowlin, & Weber (2011) referenced usability expert Steve Krug, who asserted that "80% or more of usability problems are found with only four or five subjects. If found early, these problems can be fixed at little cost and without delaying release of the product or the documentation" (p. 415). They also credit Krug for spreading the word in technical communication circles that if "your only choice" is to work with "inexperienced people" on a "limited budget," that usability studies under such conditions are better than no "usability testing at all" (Amare, Nowlin, & Weber, pp. 415-416).

JoAnn Hackos (2007) devoted 44 pages at one stretch, spanning two chapters, just on best practices in usability (pp. 137-180), and she sprinkled references to usability throughout much of the rest of her 600-plus page book, too. She singled out best practices across eight dimensions of usability listed here right out of the table of contents on pages xii and xiii:

- "Analyzing customer information requirements
- "Establishing a customer partnership
- "Analyzing internal stakeholders
- "Establishing stakeholder partnerships
- "Cataloging user roles and their information needs
- "Understanding the users' information agendas
- "Using user scenarios to develop your Information Model
- "Communicating user profiles and scenarios to team members"

At a glance, even without delving past the bullet points, Hackos brought important actions into focus.

Delving into the chapters, Hackos offered some cautionary tales about organizations that did not even know their internal users well, let alone their external users. One of those cautionary tales was about health and medical professionals working for the United States' Department of Veterans Affairs. Hackos' job was to develop an information product that would help the personnel who, in the normal course of their duties, most frequently accessed patient records. Physicians, nurses, technicians, and administrators used those records. At the start, Hackos only had access to the top administrators, so she asked questions about how persons in each occupation used those records. Only after much questioning did the top administrators admit that they did not know how their employees used those records during the course of performing their job functions. They had only been making guesses. After that, she was allowed access to speak to the other workers (p.138).

Ceraso (2013) wrote that making guesses about users occurs quite frequently, and the guesses can turn out to be quite wrong. He referenced Karen Schriver, who had separated out three strategies used for audience analysis. One is classification-driven. It relies on demographics and stereotypes about demographics. Another is intuition-driven, where one imagines what it would be like to be the intended user, but they are still drawing upon their own personal experiences. The third is feedback-driven, when information is gathered from actual users. One could reasonably say that two out of the three strategies are based on guesses (239-240). Hackos would probably say that organizations high up on the IPMM scale are ones that do not let their project management decisions rest upon guesswork. An element of information development not appearing in this thesis until now is the task of localization. Gaining an understanding of users is crucial to modifying information products based on location. Ceraso referenced Huatong Sun, who, through usability studies, found that sending text messages in the United States is quite different from sending text messages in China. A Chinese user is not likely to see the act of texting through the same lens as someone from the United States and vice versa, and much, not all, of the difference could be attributed to social and cultural values. Despite the social and cultural factors, factors one may think one knows once one is aware of the demographics, the classification-driven guesswork would not have likely reached the right conclusions about how exactly texting was different between the two nations. Only studying users, directly, could tease out the differences. This more correct knowledge of how a product was used from the denizens of one

environment in contrast to a product's use by the denizens of another environment allowed for information products to be localized, thus pleasing users in both cultures. "Technology developers should not focus on perfecting technologies for local use so much as they should [improve the information and communication flow]" (p.246). Information developers, through usability studies, possess the capability of improving performance along that vein. Saying it another way, customer satisfaction is not 100% about the gadgets. It is very much about learning about an audience and modifying information products to build better relationships with that audience.

From outside the realm of technical communication, an example of a visit to an optometrist for the purpose of vision correction with contact lenses may be illustrative of usability studies [my own analogy]. First, there are the diagnostics, wherein the optometrist directs the customer to perform vision-related tasks. The optometrist examines the customer's eyes closely and takes some measurements, too. In settings other than an optometrist's office, once a diagnosis is made, a prescription may be issued without further ado. In an optometrist's office, however, the customer interaction is more in depth. Between the diagnosis and the issuance of a prescription, the optometrist investigates usability as it pertains to the individual customer. Because of the diagnostics, the optometrist has a good idea where to start from in matching the customer with the optimal lenses. The optometrist will direct a customer to look through the selected lenses and ask the customer to make comparisons between lenses. "Which allows you to see better, this? Or this?" The optometrist flips the lens in front of the customer's eye(s) to another lens each time "this" is uttered. If a customer is uncertain about a comparison between lenses, the optometrist may repeat the presentation of those

two lenses to see if the customer can be more certain about which allows for better vision. Once the optimal lens prescription is settled upon, the usability does not stop there. The optometrist's staff issues a trial set of lenses. The customer can wear the trial lenses for a few days before deciding whether to purchase the selected lenses. If the trial lenses were unsatisfactory for some reason, perhaps the optometrist can substitute another contact lens product of the same prescription strength, perhaps from another contact lens manufacturer, to see if the customer's satisfaction improves. Perhaps the customer decides against contact lenses altogether and reverts back to using eyeglasses. Usually, the contact lens shopping experience ends with the decision to place an order for the lenses or not. True usability studies would not end there, however, for, ideally, more pointed customer feedback would be elicited at some future point in time to better assess the customer's experience with the contact lenses. How many hours, on average, would the customer leave a set of contacts in before removing them? Did the customer experience discomfort while wearing them? Were they easy to put in and take out? Did the contact lenses sometimes get wrapped up behind an eyelid and become difficult to reposition or remove? Did the customer have trouble keeping the eyes hydrated while wearing lenses? Did contact lenses make the customer rub the eyes more frequently than otherwise would be the case? The responses to these kinds of questions, if funneled back to a contact lens manufacturer, could inform the product development process of the next generation of contact lenses, and thus complete a usability studies cycle.

Agility

Note that usability studies occur preceding, during, and following a product's development and use. The same usability study principles apply to the tandem process of information development, i.e., before, during, and after, to guide the process that will yield the next generation of information deliverables.

As already noted, competent technical communicators need to adapt to quickly changing work conditions, quickly changing product development, quickly changing organizations, quickly changing competition, quickly changing user experiences with the introduction of new products or new versions of products, quickly changing roles, and quickly changing technology. Research quickly updates basic science, too, and surprises technical communicators—actually, surprises everyone—that what was thought to be known was a fallacy all along. Technical communicators might have to respond to the world seemingly being turned upside down.

For years, even up until quite recently, conventional wisdom within the field of pedagogy included the notion that students learned best when teachers planned and carried out classroom instruction in ways that would match up with the students' various preferred learning styles, of which there were (four or) five: visual, auditory, social (some do not count this one), kinesthetic, and tactile. Since a single classroom could easily contain a student population divided five ways according to preferred learning styles, instructors were tasked with preparing lesson plans across all five of these dimensions in attempts to be inclusive and not privilege one type of learner over another. The learning styles appear in the third edition of *Teaching English as a Second or Foreign Language* (2001) edited by Marianne Celce-Murcia (Oxford, pp. 359-360); in the third edition of

Techniques & Principles in Language Learning (Larsen-Freeman & Anderson, 2011, pp. 191-192); and in the thirteenth edition of *McKeachie's Teaching Tips* (McKeachie & Svinicki, 2011, pp. 165-166), and likely several more books on pedagogy from that era.

So, when assumptions turn out to be wrong, when supposed solutions did not produce their intended effects, when the expectations of users evolve, when the capacities of technology enlarge, in other words, when change is constant and constants change, it is the agility of the information process that allows for course correction in a timely manner. The next update, version, or iteration is already in the pipeline and the new information is already being incorporated into it, thus allowing for a rebound in the product performance of the next generation, which follows quickly on the heels of the previous generation.

Who Controls Curriculum and What Are the Goals?

James McKernan (2008), a professor of education at East Carolina University, reported a widespread desire in the United States to "scientifically" determine the most so-called "efficient" means of providing an education (and benchmarking it). In fact, McKernan pointed out that the United States has produced the largest body of research into the effectiveness of classroom teacher practices than any other nation, and that education research in other nations, particularly Western Europe, has focused more on education systems than education practices, which scholars in the United States would probably classify as being more closely related to public administration than pedagogy.

McKernan (2008) wrote, "Curriculum development is a deliberately planned activity through which courses of study or other educational patterns of activity and experience are designed and proffered as proposals worthy of implementation and evaluation in practice" (p. 21). McKernan, originally from Northern Ireland, is more familiar with educational systems in Western Europe, particularly the United Kingdom. The primary and secondary education systems in the United Kingdom and across much of Europe appear to be more centralized than in the United States.

The United States Constitution, McKernan reminded, made no mention of education . . . not even in its amendments. Yet, in the United States, the federal government has undertaken educational "reforms" to hold primary and secondary schools "accountable" for the resources appropriated for them by "measuring student outcomes." Student outcomes are measured by their academic test results. Before the federal government usurped more authority over primary and secondary education, the state governments had already been usurping authority from local communities, teachers, parents, and students. These reforms also led to more prescriptive iterations of "best practices" in the form of objective-based curricula. Bullet-pointed lists of objectives beginning with the phrase "Students will be able to . . ." appear in prescribed lesson plans. McKernan attributes this mentality to the ascendancy of behavioral psychologists within the realms of educational philosophy. Behaviorists measure education by how much a learner changes behavior in relation to the education given to him or her. Supposedly, if all the learners exhibit no change of behavior, no learning has taken place. McKernan is not a behaviorist.

Johan Uvin (2011) is an example of a teacher given authority and a great deal of autonomy in designing an ESP course for Chinese workers at a Boston nursing home. After his hiring, Uvin shadowed the staff of the nursing home for many days, taking copious notes on key functions for use in making lesson plans. Upon completion of his curriculum design, the nursing home administrators reviewed it and approved it. Uvin taught the Chinese workers for awhile, believing that the English lessons were preparing the workers well for performing their jobs. The workers learned to communicate well with administrators and other staff at the nursing home. His students, however, felt frustrated. Eventually, Uvin learned of the frustration and the source of it. The Chinese workers did not know how to communicate effectively with patients who behaved badly toward them. Incidents of being yelled at, insulted, and even physically hurt at the hands of elderly patients, some suffering from dementia or other disorders that can negatively affect self-regulation of behavior, baffled the workers. They did not know what the patients were even saying during these episodes, let alone know how to respond. Did the patients, in these cases, really need the workers' help? If not, the Chinese workers needed to know what to say in English to de-escalate these situations for their own protection. Uvin revamped the curriculum going forward.

Paulo Freire, a Brazilian credited with the creation of emancipatory literacy as praxis, in his widely acclaimed treatise titled *Pedagogy of the Oppressed* (1970), contended that the dominant elites determine a body of knowledge that is useful for imparting unto the oppressed in order to maximize their usefulness in maintaining a status quo that allows the dominant class to prosper in relation to the oppressed. This body of knowledge is imparted to the oppressed by means of a "banking" model of education wherein teachers merely deposit knowledge into the minds of students. Freire had worked for a time at improving adult literacy among impoverished classes of society in South America. Freire's method in pursuit of emancipatory literacy was one of

problem-posing followed by dialogue. Problem-posing allowed for critique of the dominant narrative. The oppressed, as individuals, cannot come up with the solutions for two reasons: 1) each individual is incomplete; and 2) each of the oppressed has been imprinted by the oppressor in such a way as to conceive of one's being in terms of the oppressor's paradigm. The oppressed can find solutions and, ultimately, liberation by collective praxis. Oppressors are unable to come up with solutions for the oppressed, for the solutions that oppressors come up with are those which place them in the role of deliverer, thus ascending to the dominant role. The appropriate "teacher" for the oppressed must also come from within the ranks of the oppressed, and the teacher must acknowledge a lack of having all the answers due to being incomplete. The students, individually, are incomplete, but they possess parts of the answers. The teacher, then, is a teacher-student and the students are student-teachers. The collective dialogue that ensues serves to compensate for the incompletion of individuals. The collective dialogue also allows participants to identify the remnants of the oppressor's paradigms that interfere with liberal thinking. The solutions are then to be acted upon collectively, thus theoretical solutions become practical solutions. The confluence of this theory and practice forms praxis.

McKernan (2008) distinguishes between training and education. Training is the transference of existing knowledge that the students can then rehearse. Training would be akin to the "banking" model of education Freire found so oppressive. On the flip side, McKernan said the proper aim of education was exploring what is not yet known, pushing the boundaries of knowledge. Primary, secondary, and in some disciplines, tertiary students matriculate as being trained, not necessarily educated. Trained graduates become the tools within economic systems, not pioneers of societal evolution, thus reinforcing the status quo rather than propelling humanity to greater heights. Primary and secondary teachers, operating within outcome-based paradigms, are therefore trainers rather than educators, which McKernan believes to be limiting the productive creativity of both students and teachers. McKernan faults objective-based models of curricula, noting that while governments decide what outcomes they want from their respective educational systems, the expectations of teachers, parents, and students are increasingly overlooked.

Higher education in the United States is not as bound to the "banking" model of education that Freire deplored, but that does not make HEIs in the United States Freirean and free of oppression. A significant number of professors share McKernan's view that education ought to be pushing the boundaries of knowledge. HEIs and faculty members enjoy more autonomy than most of their counterparts outside the United States. At the tertiary level in the United States, universal governmental mandates are not truly capable of implementation—not that some state legislatures have not tried at least some experimentation with reining in the public universities within their respective footprints—because not only do universities push back against infringements on their autonomy, they also have to compete for scholars with private universities over which state governments have little control (Thelin, 2011). The freedom of religion contained within the Bill of Rights within the U.S. Constitution effectively holds the federal government from interfering too much with the governance of private universities, as most private universities were founded by religious institutions (Thelin). McKernan noted that the Bill of Rights is not inviolable in the current culture of the federal

government, as the 10th Amendment should have left the entire enterprise of education to the state governments, local governments, and the people

. McKernan advanced a concept of "action research" of his own design, and, in doing so, borrowed some research practices found in universities and reapplied them to flesh out a process by which students and teachers at the primary and secondary levels of education can spur creativity and the acquisition of further knowledge. Education is a process, not a destination, McKernan argued, so he championed the formulation of process-based curricula as a replacement for objective-based curricula.

Can and Should U.S. Higher Education Be Emulated Elsewhere?

So, universities in the United States and a few elite universities in Europe (particularly, the United Kingdom) have been deemed worthy of emulation around the world. McKernan noted that the United States is the trend setter in higher education, a position envied by many other nations. Higher education in almost any nation culminates in institutions analogous to American universities, and those institutions incorporate many elements of American university life into their own university constructs. If American universities, as a whole, are charting a new course for academia, one can be fairly certain that other nations may choose to mirror those changes. Ecuador, as more fully articulated in the next chapter, Chapter 3, is one of those nations, which is why at least a cursory look at higher education in the United States is relevant. What, really, are other nations trying to emulate? The history of higher education in the United States is much different than the history of higher education elsewhere. How can other nations shape their HEIs into institutions that mimic and compete with those in the United States through processes totally unlike the processes that shaped HEIs in the United States?

John R. Thelin (2011), a historian of higher education and a professor at the University of Kentucky, wrote that American university founders often had a strong vision of what institution they would establish and how it would function within the rest of society. These diverse sponsors directed the vision at the outset and autonomy allowed them to chart their own course ... to a point. Academic freedom is not just a prerogative of the founders and sponsors. Large portions of academic freedom are also granted to deans of departments, professors, and even students, thus democratizing our universities in ways that founders and sponsors may not have envisioned. Historically, institutions of higher education in the United States have had to charge tuition; obtain subsidies from the local, state, and federal governments; and solicit donations from philanthropically minded individuals, foundations, and corporations in order to cover operating costs. In the early period of U.S. history, though various Christian denominations sponsored colleges, those colleges were neither fully public nor fully private. College presidents lobbied legislatures for funds, sometimes successfully. Many of the college presidents numbered among the most successful fundraisers were clergymen. So-called public universities that were not religiously affiliated were founded no earlier than the late 19th Century. They still raised money from the same sources: tuition, government, and donors. After World War II, however, agencies of the federal government funded technological research that established the United States as a world superpower. Top-tier research institutions emerged due to the ample funding for such research, which was chiefly in the applied disciplines, such as engineering and medicine.

Government later expanded research in the natural sciences to set the stage for further technological research. Just a small number of universities in the United States obtain enough money through government contracts to fund the majority of their technological or natural science research (Thelin, 2011).

State legislatures, philanthropic foundations, big business, and activists that could leverage some press coverage, have often made attempts to regulate, audit, reform, standardize, and streamline higher education institutions. Though U.S. colleges and universities generally rebuffed such attempts in the cause of preserving academic freedom, they still needed donations, good public relations, and a healthy-sized student enrollment in order to function. Once the truly public universities sprang into existence, the privately sponsored higher education institutions no longer had leverage to obtain funding from state legislatures, so they became truly private (Thelin, 2011). From then even until today, funding for research at many private higher education institutions, and even in the social sciences, the arts, and the humanities at the public universities, depend much more heavily on philanthropy than government grants. Grant writers work on behalf of universities to obtain funds from any available sources (Mikelonis, Betsinger, & Kampf, 2004).

According to Thelin (2011), the institutions dotting the America academic landscape were so heterogeneous and operated so autonomously that competition between them created a demand for comparisons; comparisons created a demand for rankings; rankings created a demand for benchmarks; and benchmarks created a demand for a more so-called "scientific" approach to maximize institutional "efficiency." Accreditation through audits, investigations, evaluations, and measurements against

benchmarked values is one result of these perceived needs to gauge rigor, capability and efficiency. Accreditation provides one way of discerning that the so-called "quality" of education that a university provides is sufficient without unduly impinging upon a university's autonomy. Aside from its own military service academies, the national government has not directly involved themselves in the oversight of universities, as it is content to allow regional accreditation bodies to inspect university programs, faculty, and facilities to certify that universities meet high standards. Nonetheless, U.S. colleges and universities exercise a great deal of autonomy in setting forth and fulfilling their missions. The concept of academic freedom, a highly vaunted principle of American higher education, means that universities (and even professors--especially tenured ones) will defend their autonomy notwithstanding that they have been founded and/or sponsored by some private or public entity outside of themselves. Higher education is an open market in the United States, and institutions do compete against each other for students, faculty, research, funds, and prestige. Universities were pressured to be rigorous, to be efficient, to provide added value to their students and their communities. The continuing diversity of the American academic landscape means that university rankings are still with us, as is the competition to be among the most highly regarded universities in the world. (Thelin, 2011).

What is it about the history of HEIs in the United States that autonomy worked so well in producing such a wealth of highly respected HEIs? Apparently, many other nations sense the U.S. government's enormous research grants after World War II are what made the difference, so these other nations are hoping that sharp increases in government investment and involvement will close the gap. Thelin might not agree that

government grants made all of the difference. Diversity of institutions, not uniformity, is a strength that the United States has leveraged that is missing from the blueprints of nations that are trying to emulate the United States. Academic freedom is only a partial explanation for the diversity. Demographic diversity does not account for HEI diversity, either, as university faculty and administrators are not nearly as diverse a population as is found in the general population. Democracy accounts for a portion of the diversity, but democracy also tends to create a faction of power and a faction lacking power, so the diversity afforded by democracy is not as multifaceted as the landscape of HEIs in the United States. Reading Thelin (2011), it would appear that religious diversity and religious Constitutional protections are more explanatory of HEI diversity than those other factors. Religious diversity and religious legal protections are elements missing in many other nations. The independent accreditation system is also a mechanism that promotes rigor without impinging on academic freedom. But the accreditation system exists because capitalism and higher education were maturing alongside each other. A number of other nations are not as entrenched in capitalism, and those that are did not develop higher education and capitalism within the same timeframes. Thelin even noted an often heard contention that universities cannot or ought not to be run like businesses, but Thelin retorted that businesses are run like universities, that the universities were the blueprints for corporations, especially nonprofits. Organizational charts of university hierarchies, from boards of trustees to chief executive officers (chancellors and university presidents), to chief operations, financial, and information officers (university vice presidents and provosts), to layers of middle and lower management (deans and department chairs) are mirrored in corporations. Thelin said the difference is that

universities and nonprofits do not pay dividends to the investors, though they still raise large amounts of capital. Endowments mean that universities' capital attracts yet more capital as it earns interest. Competition between U.S. HEIs is a manifestation of capitalism. If other nations do manage to clone U.S. HEIs through prescriptive government control, then perhaps World War II was the difference after all.

Teaching English to Speakers of Other Languages

Certain dialects of English have been privileged in the classroom, and those dialects undeniably continue to be privileged by academic journals (Franken, 2012; Jenkins, 2006). Beyond dialect, there are also privileged norms of organization, style, and substance. To publish one's research, one may find that code-switching is necessary to conform to editorial standards. To code-switch between dialects within a language could be similar to acquiring a second language even though the dialects are mutually intelligible (Delpit, 1995). There is a growing sense among American English educators that all varieties of English ought to be equally esteemed, and that a requirement to code-switch to a "more standardized" dialect of English is unreasonable. In the interest of egalitarianism, the term "World Englishes" has come into being (Young, Martinez, & National Council of Teachers of English, 2011).

British-based researchers Adrian Holliday and Pamela Aboshiha (2009), took egalitarianism a step further, stating that hiring discrimination against non-native speakers who apply for English teaching jobs abounds in the United Kingdom and the United States. They argued that even using the term "non-native" should be discontinued. In keeping with postmodern thought, Holliday and Aboshiha point out that each communicative act is unique unto itself, with the meaning negotiated in unique environments among unique individuals in unique circumstances, thus a distinction between "native" speech and "non-native" is an attempt at uniformity that does not exist.

Communicative language teaching (CLT) is an instructional approach that builds on this notion of negotiating meaning among unique individuals in unique environments. If interlocutors can effectively communicate their intended messages, then they are considered successful no matter how their word choices, syntax, pronunciation, etc., are characterized. A relatively large portion of instruction time is devoted to work in pairs or small groups to allow as much time and opportunity for practicing language output as possible. During such group activities, the teacher may monitor or even drop in on group conversations as he/she moves about the room. Ideally, the seats would be arranged in pairs or small clusters facing each other, or perhaps around tables so that interlocutors can face each other. This approach, being far more student-centered than a lecture format, is often not practiced unless the teacher actually received training in the approach (Larsen-Freeman & Anderson, 2011).

An untrained native speaker of English is often likely to use a more teachercentered manner of instruction. The Direct Method uses only the target language, not the students' L1. Audiolingualism involves drills in which students repeat utterances in the target language in an attempt to closely match the teacher's utterances (Larsen-Freeman & Anderson, 2011).

Grammar-translation is a method more commonly employed by teachers who are non-native speakers of English and who may also not be as confident in their abilities to speak English. Like audiolingualism for native-speaking teachers, grammar-translation may be the perceived default teaching method when non-native English-speaking teachers are untrained in all the various techniques, methods, and approaches currently available. Even at the present time, this is true of EFL instruction, especially in lessdeveloped nations (Bernaldez, Harris, & Raffo, 2014, March; U.S. Department of State, 2014, March). In classrooms where this method is used, more attention is paid to the tasks of reading and writing. Also, in contrast to the Direct Method, the target language is not the only language of instruction. (Larsen-Freeman & Anderson, 2011).

Grammar-translation is not on its way to extinction, for no one is calling for it to be abandoned entirely, but it is losing ground to CLT. In some corners of the world, educators have been reluctant to adopt CLT because they claimed that the personalities and cultures of the students made them more amenable to teacher-centered instruction and less inclined to want to voice themselves in classroom settings (Nishino, 2012). Thus, they saw the advancement of CLT as attempting to overlay an American classroom template of talkative students and flexible-activity lesson plans upon cultures where it did not fit. However, claims of success in using CLT in EFL classrooms in those countries, even with teachers whose L1 is not English, are growing more numerous (Baker, 2009; Sampson, 2012; Wolf, 2013). The education ministries of many nations are now making note of these claims, especially claims that students appear to engage more enthusiastically with course contents, and want to improve upon local EFL teacher training so that more teachers will use CLT and more benefits will accrue to the students (U. S. Department of State, 2014, March).

From what is known of the brain concerning learning, retention, and subject mastery, moving directly from language input to language output is insufficient for

gaining a true understanding of how the English language works. Between the input and output stages, students need to engage the higher order faculties of the brain (De Felice & Santos, 2014, March). The Participatory Approach adds problem posing and critical discourse analysis to the CLT format and students can build knowledge together. This approach also accounts for power differentials between individuals and classes of people. It recognizes that communication is ideological, in fact, political. The critical thinking skills combined with a collective collaborative approach to gaining insight allows for student advocacy and social action (Larsen-Freeman & Anderson, 2011).

Content-based instruction (CBI) can be used in tandem with CLT and the Participatory Approach by adding another layer of context beyond critical discourse analysis as language is not only used to build knowledge, to analyze the ideology within a discourse, to advocate for social justice, and to mobilize for social action to counteract power differentials, but it can be tied to content areas such as the natural sciences, the social sciences, the arts, the humanities, business, engineering, medicine, law, and so on (Larsen-Freeman & Anderson. 2011). Content area literacy and disciplinary literacy are two related but distinct literacy competencies, with content area literacy placing emphasis on transferrable literacy skills that can assist a student in learning nearly any subject, while disciplinary literacy places an emphasis on the tools and terminology specific to a chosen discipline. "The major premise of content area reading proponents has been that the cognitive requirements of learning and interpreting any kind of text are pretty much the same, no matter what the subject matter" (Shanahan & Shanahan, 2012, p. 8). Content based instruction aimed at building content area literacy may be useful in teaching broadly for the purposes of English for Academic Purposes (EAP). Building

disciplinary literacy may also be appropriate for EAP if the students in a class are preparing for advanced study in the same academic discipline.

English Acquisition as Means to an End

If students in a class are majoring in a diversity of academic disciplines, then the students may desire to supplement their EFL education by enrolling in classes of English for Special Purposes (ESP) in order to build disciplinary literacy in their chosen field. However, ESP classes are often sponsored by industry after one is already in the workforce, thus ESP may be tailored to teaching the very specific English skills needed within those unique work environments. Thus ESP may be considered as a refinement of CBI in that it provides content aligned with the learners' very specific purposes for learning English in the first place (Johns & Price-Machado, 2001). ESP instruction, whether provided by industry or by HEIs, is more common in EFL classrooms than ESL classrooms, for students already in Anglophone nations learning ESL will need to use English nearly every day to interact with those around them, but students who are in non-Anglophone nations do not need English for daily living, but they do need to build specialized competencies in English within the scope of the activities that they engage in that require English. Most ESP teachers are non-native speakers of English, and ESP teachers, no matter if English is their L1 or not, need training and an added skill set to be effective ESP teachers. Depending upon context, ESP might be considered as an umbrella term, encompassing English for occupational purposes (EOP), English for business purposes (EBP), and English for academic purposes (EAP), or, much less commonly, it might be considered a more specialized term to signify either a narrower

and deeper focus than broad EOP, EBP, or EAP classes provide, or a narrow niche not belonging to those categories. Ideally, "... *all* language teaching should be tailored to the specific learning and language use needs of identified groups of students—and also sensitive to the sociocultural contexts in which these students will be using English" (Johns & Price-Machado, 2001, p. 43).

South Korea is an example of an expanding-circle nation that has gone so far as to promote the use of the English language as the medium of instruction (EMI) at HEIs not just private universities promoting themselves as an English-immersion alternative to public, but public universities, as well (Byun & Kim, 2012; Park, 2014, March; Green 2015). A decline in birthrate coupled with the number of South Korean students studying at HEIs abroad has left South Korea with an oversupply of HEI capacity. EMI is one of the strategies used to mitigate against the reduced enrollment by attracting international students to enroll in South Korean HEIs and by deterring South Koreans from enrolling abroad (Green, 2015). It is also supposed that professors in every discipline will meet the students' English language disciplinary literacy needs in this fashion, presumably making every professor a de facto EFL instructor. A criticism voiced by some professors and students is that lapses in communication have frequently hampered learning. To many, English is replacing, rather than adding onto, the use of Korean. In some classrooms, professors adopt the strategy of code-meshing to be more communicative (Park, 2014, March).

If code-meshing leads to localisms, the usefulness of English as a lingua franca may be diminished. A study of English-language, customer-service, call-center employees—whose L1 is not English—in outer-circle nations, like India and the

67

Philippines, provides a cautionary tale that local varieties of L2 English around the globe may not be mutually intelligible with other L2 varieties of English—especially between disembodied voices over the telephone (Lockwood, 2012)—and whether code-meshing between English and various L1's contributes to such communications impasses between L2 speakers is undetermined. In the South Korean university settings that Park described, parallel use of English and Korean may be a better alternative to replacing Korean with English or resorting to code-meshing.

The Brain of the Learner

"Cognition, or mental activity, describes the acquisition, storage, transformation, and use of knowledge," according to Margaret W. Matlin (2013, p.2). "The cognitive processes are active, rather than passive. [...] [T]he cognitive approach proposes that people seek out information. In addition, memory is a lively process that requires you to continually synthesize and transform information. [...] [Y]our mind is not a sponge that passively absorbs information leaking out from the environment. Instead, you continually search and synthesize" (p.24).

Continuing with Matlin (2013) on cognitive processes, they "are remarkably efficient and accurate. [. . .] Naturally, humans make mistakes. However, these mistakes often occur when people use a strategy that is appropriate. For instance, people frequently base their decisions on how easily they can recall relevant examples. This strategy often leads to a correct decision, but it can occasionally produce an error. Furthermore, many of the limitations in human information processing may actually be helpful. You may wish that your memory could be more accurate. However, if you retained all information forever, your memory would be hopelessly cluttered with facts that are no longer useful" (pp. 24-25)

"The cognitive processes handle positive information better than negative information" (Matlin, 2013, p.25). This actually is true in more ways than one. Not only does positive input get processed better, a positive mood helps with processing, too. This is also true in processing language, even in print. If one reads through passages of text very quickly, a negating word can easily be missed, thus the opposite meaning is gleaned from the reading when that happens. Also, even if one is attentive to every word, spoken or written, so that negating words are taken into account, the efficiency of processing the information decreases, however so slightly. One person may respond to another's opinion saying, "You are not wrong." A different person may respond to that same opinion saying, "You may be right." The listener will process the second response more efficiently.

"The cognitive processes are interrelated with one another; they do not operate in isolation. [. . .] For example, decision making typically requires perception, memory, general knowledge, and language. In fact, all higher mental processes require careful integration of our more basic cognitive processes. Consequently, such tasks as problem solving, logical reasoning, and decision making are impressively complex" (Matlin, 2013, p. 25).

"Many cognitive processes rely on both bottom-up and top-down processes" (Matlin, 2013, p. 26). When bodily sensations respond to stimuli, that starts a bottom-up process. When conceptions in the mind direct activity, that starts a top-down process. They work at the same time in processing language input. One hears sounds or sees orthography through bodily sensation, but one's mental constructs of phonology, morphology, and semantics are top-down processes that make those sounds and sights intelligible.

"The central executive integrates information from the phonological loop, the visuospatial sketchpad, the episodic buffer, and long-term memory" (Matlin, 2013, p. 115). These are the resources available to the working memory. While the central executive suppresses some information and integrates the information from the other sources, it has no storage for memories, by itself. The phonological loop temporarily holds language, or text, information both written and oral, but can be overloaded if there is too much input and/or at once. The visuospatial sketchpad can process visual and spatial information, images up to three dimensions, also on a temporary basis at the same time as processing information through the phonological loop. Visuospatial information does not burden the phonological loop at all. Phonological information does not burden the visuospatial sketchpad at all. The episodic buffer does have storage for short-term memory, and can call upon the resources of the long-term memory to be combined with the information from the phonological loop and the visuospatial sketchpad to forward it all to the central executive. The capacity of long-term memory dwarfs the limited capacities of the other mental resources. To learn effectively, one needs to move information into the long-term memory and practice retrieving that information from time to time. Repetition of input and retrieval, spaced over time, works better than "cramming," or a lengthy interval of trying to commit to memory a lot if information all at once. The recency effect can benefit crammers in the short term, as recent input does not disappear immediately from the episodic buffer, but that information needs to move

to long-term memory if the cramming is to have lasting benefit. Retrieval is easier when a learner is in the same environment, situation, condition, or context that the learner was in when the input was first processed. Therefore, if one needs to retrieve certain information for many contexts, it helps to receive that information in many contexts.

The human mind organizes points of information, or "schemata," into a structure of compounded knowledge, a "schema." Shuying An (2013) wrote, "The fundamental tenet of schema theory assumes that written text does not carry meaning by itself. Rather, a text only provides directions to readers as to how they should retrieve or construct meaning from their own previously acquired knowledge" (p. 130). Assume a PowerPoint slide contained only text, perhaps organized into an outline, with headings, subheadings, and bullet points. The outline does provide directions on organizing the information of the text into a structure, but what if the text, itself, is inaccessible to the reader? An image has the capacity to render something seemingly abstract or unfamiliar into something concrete and recognizable, thus a well-chosen image on the PowerPoint slide may activate a viewer's prior knowledge so that the text becomes more accessible. The narrative spoken by the presenter adds schemata to be incorporated into the viewer's existing schema.

When researchers in the field of cognitive psychology put conventional wisdom to the test and found out that, no matter what learning style a student identified with, they learned in the same way, Alley and Neely wrote an article for an academic journal, *Technical Communication*, responding to the discovery by recommending a better method for making presentations . . . back in 2005—six years prior to the publications of two of the books listed above that were still referencing teaching styles. The more ways in which an audience receives input, the more likely the audience members will be able to retrieve the information presented, but not all inputs are equal. The top three input methods, ranked by order of learning effectiveness, are visual, auditory, and reading.

Learners are users. These revelations helped them understand users better. Alley and Neely (2005) proposed better information products as a result. PowerPoint slides were no longer to be bullet-pointed with everything a lecturer said. Slides were to contain one complete sentence, no more than that, in the header position on a slide. A complete sentence helped audience members articulate the content later, but a mere phrase on a slide did not produce the same benefit. An illustration should appear under the sentence that clearly displayed the content of the sentence. Clip art and merely ornamental graphics made slides more forgettable, but an instructive illustration of the sentence allowed for double-encoding, as short term memory can absorb linguistic information and visual/spatial information at the same time without interfering with each other. As the slide is presented, the lecturer should provide an oral narrative to add the details that help the audience make the connections. Seeing the slide again would help listeners remember what the speaker had said at the time the slide was presented. This is but one example of how technical communication can assist with education. Composing such slides for in-class presentations may be a good initial project for the information development team.

Mary Helen Immordino-Yang (2016) researched the brain's default mode network (DMN), activated when the mind is awake but at rest from cognitively demanding tasks. One might call it the daydreaming state. Cognitively demanding tasks may range from playing basketball to taking a math test, from riding a bicycle through heavy traffic to scrubbing a toilet, or from writing a paper to paying close attention to a professor's lecture—any activity that requires the resources of the central executive network of the brain. When the mind has some time free from cognitive burdens, the DMN allows for pondering and reflection. This pondering and reflection allows for connections to be made between information, concepts, self, environment, interests, past experiences, and future plans. One might say that the DMN allows for greater opportunity to organize schemata into schema. A course of study filled with academic exercises that demand cognitive resources can be counterproductive to learning outcomes if there is no downtime for the DMN to engage. But cognition and DMN both require development for proper learning. Cognitive activity is necessary because without it there would be little brain fodder to contemplate during the downtime. The DMN is necessary for making the connections during the downtime that can sharpen cognition and make cognitive tasks more meaningful.

In 2017, Immordino-Yang partnered with another researcher, Rebecca Gotlieb, to publish additional findings about learners' brains, particularly about the social-affective filter. The brain is innately prepared to incorporate emotions and the social self into all of its functions, even the involuntary subconscious functions. Cognitive reasoning cannot be severed from cultural, social, and emotional meanings. That the amygdale and cortical tissue of the brain play roles in the registration of emotions was already known. The more recently information revealed through brain imaging is that subcortical tissue and the brainstem are involved, too. Evolutionary speaking, the brainstem is the most ancient brain structure, and it registered emotion at the outset, which strongly suggests that not just humans, but other animal species with a brainstem also process emotions. The brain stem is the most vital organ in the body.

Immordino-Yang and Gotlieb (2017) made a distinction between emotions and feelings. Emotions are biological responses that occur without devoting conscious thought to them. An example given was that of approaching danger that forces a decision between fight or flight. Whether the decision is to fight or flee, the biological response, the emotion, is the same. The heart rate rises; respiration becomes heavier; senses become heightened; perspiration increases. These are perceptible biological responses, but imperceptible responses, too, are triggered. This is emotion. As mentioned, though, the person who stays to fight and the person who flees are experiencing the same emotion, for the imperceptible and perceptible responses are the same. The decision to fight is a feeling. The decision to flee is a feeling. Feelings are constructed from emotions. Feelings are reportable. A person can relate how they felt at that crucial moment.

Further study revealed that feelings, too, not just emotions, register in the brainstem, and not just feelings related to self preservation or self well-being. A study cited by Immordino-Yang and Gotlieb revealed that social feelings, feelings beyond self, also activate these areas of the brain, including the brainstem. "Admiration for virtue (which many participants described as feeling "inspired") especially activated the medulla, a brainstem region just above the spinal cord so fundamental to survival that damage there is eminently fatal [...] As many humanitarians, poets, civil rights leaders, and educational researchers had suspected, social emotions about values, virtues, and moral qualities could feel to us like a matter of life and death because they literally hook

themselves into the basic life-regulatory machinery that keeps us alive, awake, and aware" (p. 354S).

Interestingly, another study cited by Immordino-Yang and Gotlieb (2017) showed that though two persons experience the same emotion and report the same category of feeling at the same strength, those two persons differed "in the process by which they convert their bodily-emotional reactions into conscious psychological feelings" (p. 355S). Each person possesses a "distinct neurobiological style" (p. 355S).

Culture imprints the brain (Immordino-Yang & Gotlieb, 2017). The level of expressiveness conditioned by culture while reporting feelings, in particular, showed that even with reports of the same feelings elicited by the same stimuli, those from a less expressive culture activated a part of the brain that differed from those of a more expressive culture. Likewise, from the more expressive culture, a part of the brain was activated that did not activate in the brains of those from the less expressive culture. A third group was tested, a group that had been raised by parents from the less expressive culture but in the environmental surroundings of the more expressive culture. The results from testing this third group showed results that skewed in the direction of the more expressive culture of their environmental surroundings, but still statistically measured at an intermediate level between the two cultures.

Yet another study reported by Immordino-Yang and Gotlieb (2017) found psychosomatic differences based on ethnic identity independently from culture. The study compared two groups of bicultural adolescents living in Los Angeles, California, USA. The socioeconomic status of both groups were the same—fairly low—and the adolescents of both groups came from "stable homes" and all were "successful students"

(p. 359S). The youngest students tested were 14 years old and the oldest were 18 years old. The groups differed by ethnicity—one group Latino and the other group Chinese. The parents of all the students had grown to adulthood outside the USA before immigrating to Los Angeles. In the study, the adolescents had to track their own pulse rate. Medical devices also monitored heartbeat. Accuracy is not perfect, but the Latinos who more strongly identified with Latino ethnicity were more accurate at tracking their heartbeats than the Latinos who did not strongly identify as Latino. Among the Chinese, the stronger the ethnic identity, the less accurate the adolescents were at tracking their heartbeats. Thus the results skewed in opposite directions between the groups according to how strongly the adolescents identified with their parents' ethnicities. Adherence to cultural observances, however, did not play a role in these differences. For example, all of the adolescents may have, by their own choice, worn the same attire as their American cohorts and eaten hamburgers with French fries everyday without impacting ethnic identity. Conversely, if students ate ethnic foods at every meal, it was not predictive of ethnic identity. The predictive factors for ethnic identity appeared to be the following: The older adolescents identified more strongly with ethnicity than the younger adolescents. The closer the emotional bonding with parents-wherein adolescents felt that parents treated them with great warmth-the more strongly the adolescents identified with their respective ethnicities.

Scaffolding

"Scaffolding—in its more usual sense—is a temporary structure that is often put up in the process of constructing a building. As each bit of the new building is finished,

the scaffolding is taken down. The scaffolding is temporary, but essential for the successful construction of the building," wrote Pauline Gibbons (2002), but then she went on to illustrate why scaffolding is employed as a metaphor in pedagogical practice. "Scaffolding, however, is not simply another word for *help*. It is a special kind of help that assists learners to move toward new skills, concepts or levels of understanding. Scaffolding is thus the temporary assistance by which a teacher helps a learner know how to do something, so that the learner will later be able to complete a similar task alone" (p.10). She looked to Lev Vygotsky, a Russian psychologist, for inspiration. His views on learning were not in currency until the late 20th Century, but they were first written down in the early 20th Century, albeit in Russian. When translations of Vygotsky's works were finally in circulation, Paulo Freire's works were also in circulation. Freire had rejected the banking model of education in favor of a student-centered learning model focused on process over product. Freire's approach, too, has attracted criticism for omitting, glossing over, or deemphasizing useful information that should be made more explicit for those with less cultural and linguistic capital. Gibbons preferred Vygotsky's view that learning is socio-cultural (pp. 6-8). More about Freire appears in earlier in this chapter under the subheading of "Who Controls Curriculum and What Are the Goals?"

From a socio-cultural perspective, a learner, drawing upon the cultural capital that the learner already possesses, collaborates with an "expert" who already knows the next steps beyond what the learner knows. Together, learner and expert perform a task together until the learner can do it without aid. Gibbons used an example of a child learning to get dressed. The parent ("expert") does all the dressing of the child at first. As the task gets performed many times, the child picks up on how to do parts of the task. Eventually, the child dresses without help. Another example Gibbons used was a parent and child putting together a puzzle. The child learns the adult's strategies for puzzlesolving. The child becomes able to independently put puzzles together that are different from the puzzles put together before, demonstrating that the child learned "*how* to think, not simply *what* to think" (p. 8).

Gibbons' book contains other examples of what one could call task-based instruction (TBI)—often using realia, or actual physical artifacts, for the purpose of contextualizing learning so that it is not an exercise taking place in abstract isolation but overall nests that instruction into teaching content across the curriculum in the target language, thus showing the connection between what one could call content-based instruction (CBI) and what one could call content area literacy. A key strategy employed by Gibbons is to always direct learners back to what they know before stepping beyond what they know, a strategy tied to Vygotsky's construct known as the "zone of proximal development," signifying "the cognitive gap between what a child can do unaided and that the child can do jointly and in coordination with a more skilled expert" (p. 8). Along this vein, Gibbons directed educators to structure the curriculum so as to "Move from whole to part. Move from meaning to form. Move from familiar to unfamiliar" (p.133). She also valued connecting knowledge in the target language with knowledge in the L1 (p. 11).

Scaffolding is more than building onto prior knowledge to make it more accessible. In an article about acquiring content literacy, Frey, Fisher, and Hattie (2016) wrote that learners progress through three phases: surface, deep, and transfer. The scaffolding strategies that are ideal during the surface phase are not as effective during the deep or transfer phases. The scaffolding strategies ideal during the deep phase are not as effective during the surface and transfer phases. The scaffolding strategies that are ideal during the transfer phase are not as effective during the surface and deep phases. Therefore, matching appropriate strategies with each phase is also a scaffolding function.

"What are the key facts and principles?" is the "driving question" of the surface learning phase, a phase devoted to the "Acquisition and consolidation of initial knowledge base" through the processes of "Rehearsal, memorization, and repetition" (p. 570). When content area learning has not yet moved past the surface phase, students are still learning basic vocabulary and reading for comprehension in the content area. They are not ready to enter a deeper phase of learning until they are able to easily recall basic information from memory. The authors make clear that surface learning is not superficial learning, for it is the foundation for all that comes after.

"How do these facts and principles fit together?" is the "driving question" of the deep learning phase, a phase devoted to "Interaction with skills and concepts" through the processes of "Planning, organization, elaboration, and reflection" (p. 570). The memorization of the surface phase, an important foundational process, must be built upon, for it is not sufficient for deep learning. At this point, the students can understand the topic well. Perhaps they have a sense that the topic does not exist in isolation, but they have not yet staked out its location relevant to the rest of the body of knowledge and are not quite clear on either when or how to apply this knowledge as events unfold in life.

"How and when do I use this for my own purposes?" is the "driving question" of the transfer learning phase, a phase devoted to "Organizing, synthesizing, and extending conceptual knowledge" through the processes of "Making associations across knowledge bases and application to novel situations" (p. 570). One might infer that this is the learning that Paulo Freire was striving for, but one might also infer that the "banking model" of learning that he disdained sounded very much like the surface phase of learning, which must take place before the deep and transfer phases can be sustained. As an aside, Freire worked with adults, not children, which may explain why his approaches worked so well: They would have been appropriate for the transfer phase. More of Freire's views appear in the section under the subheading, "Who Controls Curriculum and What Are the Goals?" earlier in this chapter.

Frey, Fisher, and Hattie identified which scaffolding strategies to use during each phase through quantitative analysis. Hattie, in particular, had "reviewed thousands of meta-analyses that represent over 250 million students" (p. 567), which allowed the establishment of a baseline for how much the average student learned during the course of an average school year, and the effect size of the various scaffolding strategies were measured against it. They found that strategies did not maintain the same effect size advantages in all phases of learning. In fact, many strategies overall performed poorly against the average. Yet, under certain conditions, certain strategies would have outsized effects. Phases of learning accounted for the conditions that allowed for a strategy to be more effective than usual.

Some strategies that work best during the surface phase are:

• *"Leveraging prior knowledge*: This is an excellent predictor of subsequent reading comprehension of topical texts and requires teaching with the intention of building on existing knowledge.

- "Vocabulary techniques: This constellation of techniques (e.g., concept sorts, mnemonics, work cards) allows students to generalize through definitional understanding, apply though [sic] usage, recall a breadth of words and terms, and gain precision through examples and nonexamples, and they become increasingly available to students through discussion and writing.
- *"Reading comprehension instruction in context*: These techniques include linking concepts and arguments internally within a document, annotation of texts, monitoring meaning, interpreting a text, and moving forward and backward within a text to regain meaning when it is lost.
- *"Wide reading on the topic under study*: To deepen student knowledge of a single topic, the teacher curates readings that are directly related to the subject being studied so they can build background knowledge.
- *Summarizing*: Through oral and written channels, this technique gives students practice at coalescing and solidifying new knowledge" (pp. 569-570).

The largest of these effect sizes were for leveraging prior knowledge and vocabulary techniques. The smallest effect size, though still above average at this phase, was wide reading on the topic under study.

Some strategies that work best during the deep phase are:

"Concept mapping: As an intermediate step toward the production of written and oral presentations of knowledge, concept maps and graphic organizers give learners a tool for planning and organizing information for the purposes of elaboration.

"Discussion and questioning: Students can more fully explore ideas in the company of peers and the teacher. By this, we do not mean teacher interrogation of learner knowledge but rather true discourse that occurs when people wrestle with abstract ideas. *"Reciprocal teaching*: This is a technique for reading and discussing complex texts within a student-directed group of four. The text is segmented into smaller passages, and the students pause after reading each passage to discuss questions they have, seek clarification on ambiguous material, summarize key ideas, and offer predictions about the next passage, given the information provided thus far.

"Metacognitive strategies: They build the habits of self-reflection and self-monitoring. Students who are deepening their learning are investigating and researching topics and issues. As they plan, organize, and elaborate on what they are learning, they need methods for checking in on their own progress to formulate their next steps" (p. 571). The authors believe that these strategies are sometimes deployed too early. These strategies do not work well in the surface phase. Of these, the greatest effect size was for studying and questioning. The smallest effect size, though far above average for the deep phase, was concept mapping.

Some strategies that work best for the transfer phase are:

"Reading across documents provides students with the chance to formulate reasoned conclusions across disparate information as they engage in a series of mental representations that move from understanding texts singly to formulating conclusions drawn from multiple pieces. Students focus on the content of a single text and then move to sourcing and contextualizing. They repeat this process with a second piece of text, including rereading and discussion. Now questions are used to guide student thinking about intertextual processes. Are the documents in agreement with each other? How do they differ? Does the information from one corroborate or expand on the information of the other? Moving forward, students are challenged to form an integrated mental model in which they must decide what information must be discounted or ignored, what information overlaps and is therefore corroborated, and what is unique but credible. "Problem-solving teaching is driven by learners who possess adequate levels of knowledge such that they can engage in inquiry. To teach inquiry in the absence of knowledge is ineffective, which is why conventional problem-based teaching is ineffective during the surface learning phase. However, its effectiveness increases considerably when students use inquiry in authentic ways because they know something about the topic of investigation.

"Debate and Socratic seminars allow students to discuss texts, explore abstract ideas, and engage in critical inquiry in the presence of peers. As with the other content literacy instructional routines in this section, debate and Socratic seminars are driven by students who possess considerable knowledge about the topic and are seeking not only to understand but also to link knowledge within and across bases.

"Extended composition in the disciplines gives students a forum for representing their formal reasoning, engaging in formal argumentation, and critiquing ideas and events" (p. 573). Among these, the greatest effect size was for reading across documents to conceptually organize followed closely by debate and Socratic seminar. The smallest effect size, roughly half that of the first two, though still above average for this phase, was for extended writing.

Textbook Rhetoric

James Berlin (1988), in advancing his views on social-epistemic rhetoric, postulated that all knowledge is "a product of the dialectic" wherein the "interaction of the observer, the discourse community . . . and the material conditions of existence" construct what is real (p. 488). All communication is ideologically driven, therefore "a way of teaching is never innocent. Every pedagogy is imbricated in ideology . . ." (p.492). Not only would this apply to the fields of composition and rhetoric, it would extend through all disciplines, including nursing, engineering, physics, TEFL, and so forth.

Saeed Taki (2008), for instance, compared the English textbooks provided to the Iranian public schools by the national government to the English textbooks from abroad chosen by a number of private schools in Iran and fleshed out the ideologies of each. The nationalized textbooks featured generic, decontextualized dialogues between person A and person B. 85% of the time, there were not even any clues as to the genders of A or B. The other 15% of dialogues were between two males. The relative social status of interlocutors remained concealed, also. The dialogues contained no controversy. In common with the international textbooks, the marketplace (consumerism, if you will) was a topic of consideration. Overall, Iran's national English textbooks placidly embrace the status quo. Textbooks from abroad began "each unit . . . with dialogues" which were "the central part of each unit" (p. 140). Dialogues in three out of four international textbooks in Taki's study were 100% simulated, with no authentic materials. Like the Iranian textbooks, dialogues were free of controversy. The majority of dialogues took place between a male and a female who were social equals (between friends, between colleagues, etc.), which represents more idealized interactions than cold reality offers. As already mentioned, the marketplace was a relatively common setting (specifically--in the international textbooks--within a service economy), but entertainment and the media were also fairly prominent which thus reinforced a consumerism to pacify the masses. English, in its capacity as lingua franca, clearly served commercial purposes in the texts that Taki examined.

In justifying his embrace of social-epistemic rhetoric, Berlin recounted the ways in which other views of rhetoric were less satisfactory. His critique of expressionist rhetoric applies here. Social-epistemic rhetoric fosters critical thinking, and fully recognizes the unequal distribution of power. In contrast, the supposed equality among speakers of the simulated dialogues that give rise to superficial, uncontroversial, and uncritical self-expression observed by Taki that surreptitiously promote the consumerism and accompanying capitalism that sustain social inequality was a subversion accurately predicted by Berlin in his critique of expressionistic rhetoric. Among the foremost advocates of writing as a process is Donald Murray, whom Berlin identified as an expressionist. For Murray (1972), writing form should not constrain communication unless one's choice of mechanics gets in the way of conveying the intended meaning to one's reader audience. "The student is encouraged to attempt any form of writing" for one is not "teaching a product," one is "teaching a process" and the "process which produces 'creative' and 'functional' writing is the same" (p.5). This example of insistence on individual voice is what Berlin (1998) perceived to be exploitable by the capitalist class despite the fact that expressionistic rhetoric "includes a denunciation of economic, political, and social pressures to conform" (p. 486). Though nominally "...

opposed to established practices," expressionism's "subversiveness, however, is more apparent than real" (p. 487). Collective action would be needed to dislodge the established capitalist status quo, Berlin posited, thus rhetoric as individualistic as expressionism cannot yield a united opposition. Furthermore, and more salient, the capitalists, themselves, could tout the entrepreneurship, the exploitation of the "material, social, and political conditions of the world in order to assert a private vision," and the consumerism that underpin capitalism as self-expression (p. 487).

Global English, or English as a lingua franca, is expressionist at its core, and the texts that Taki examined fit the mold of Global English. Taki calls upon teachers to supplement the texts by creating "critical language awareness in their learners" because the texts, alone, do not foster critical thinking (p. 140). The chief goal of Global English is its function: to communicate one's views to one's audience. Therefore, form is not of primary focus. The content of such texts need not be authentic so long as self-expression is solicited. Péter Medgyes (2001) pointed out that English as a lingua franca is spoken by more non-native speakers around the globe than the total number of native-English speakers, Anglophone powers, such as the U.S.A. or the U.K. cannot take ownership of it and thus non-native speakers are at liberty to use English to perform its lingua franca function without the need to adhere to Anglophone form. Native-like speech is not the goal of Global English. Non-native speaker ownership of Global English is limited by the following observation: "People seldom aspire to more than what they find personally and professionally necessary" (p. 431).

Chapter 3: Ecuador

This chapter situates the research of this thesis in Ecuador. After profiling Ecuador, its recent reforms, and its educational landscape with an emphasis on the teaching of English as a second language, the chapter closes with accounts of site visits to college campuses in Ecuador for the purposes of surveying students enrolled in English courses.

A Brief Profile of Ecuador

Just before the arrival of Spanish conquistadores, Ecuador was ruled by the Incas, led by their last emperor, Atahualpa. The Incas dwelt in the Andean highlands, a region also termed the Sierra, with their seat of government located near present-day Quito. Indigenous peoples in the Amazon, the Andes, and in the coastal areas all differed from each other. Those on the coast and those in the Amazon were not conquered by the Incas and did not speak the Inca language, the forerunner of modern Kichwa, as those in the Andes did. There is one small indigenous group in the Sierra, in the very south of Ecuador on the eastern slopes of the Andes and extending into the Amazon basin, the Shuar, unrelated to the Incas that the Incas could never subdue who also retained their own language (Zaitchik, 2013). Nevertheless, peoples of the Sierra were, by far, the most populous, most influential, and most prosperous. After colonization, Spanish became the language of the government and of the schools. Some slaves from Africa were imported to Ecuador, but in much smaller numbers than those resettled in Brazil, Colombia, Venezuela, the Guyanas, Central America, the Caribbean, and the United States. The intermixing of indigenous peoples and Europeans was so great that the *mestizo*

population is now in the majority of nearly every province in the nation. The Spanish word *mestizo* is equivalent, in English, to the word "mixed." The greatest concentration of unmixed indigenous ancestry is found in the Andes, thus the indigenous peoples of the Andes have had a much stronger influence in Ecuadorian society than the indigenous peoples of the coast or of the Amazon basin. Ecuadorians are overwhelmingly Roman Catholic. Today, Ecuador is considered a representative democratic republic with a popularly elected president and legislature (Mijeski & Beck, 2011).

Remarkable Changes in Ecuador between 2006 and 2017

Rafael Correa served as the president of Ecuador from 2006 until 2017. Lenin Moreno, of the same political party as Correa, became Ecuador's president thereafter ("Correismo", 2017, April 8). The duration of Correa's term in office was much lengthier than his predecessors. Ecuador adopted a new constitution in 2008, during Correa's first term in office. The adoption of the new constitution necessitated a new presidential election in 2009, shortening Correa's first term a little bit. However, the new constitution restarted the clock on Correa's term limits, for he was able to serve for two additional four-year terms beginning with those 2009 elections. The Correa era palpably differed from those that preceded it. Correa introduced many reforms. The lengthy duration of Correa's presidency allowed enough time for many of the proposed reforms to succeed and take hold. Under these circumstances, Correa wielded much more influence than presidents that preceded him (Arsel, 2012; Mijeski & Beck, 2011; Sarasin, 2011).

Ecuador, under the leadership of Rafael Correa, aimed toward transformation on many fronts. Correa spent more time among the marginalized indigenous minority populations compared to his presidential predecessors (Sarasin, 2011). In winning his first term, he was not the winning candidate among indigenous voters, but the voting bloc of the indigenous electorate was highly fractured in 2006, thus beginning a decline in the strength of a political indigenous movement in Ecuador. Many of the formerly dominant rival political parties also lost a great deal of support by the time Correa ran for the presidency again in 2009 (Mijeski & Beck, 2011). In 2006, Correa campaigned as an outsider, and that gained traction due to very public ethical lapses and widely perceived corruption of his presidential predecessors. He had academic credentials, though, for he had earned a doctoral degree in economics from the University of Illinois (Conaghan & de la Torre, 2008, p. 271). His ideology was Marxist framed within postmodernism, which, at the outset of his presidency, had a strong appeal among the impoverished classes (Becker, 2013). In his speeches, he often spoke out against the United States and its hegemony. Correa upgraded Ecuador's infrastructure in conspicuous places, such as paving heavily traveled former dirt roads, improving existing arterial paved roads, opening a new Quito airport and a new terminal at the Guayaquil airport. Ecuador has never experienced such a rapid burst of development before (Prada-Trigo, 2016). Ecuador borrowed money, especially from China, and Ecuador's mineral wealth was the collateral for the loans. Some critics contended that the government's environmental policy was merely rhetorical, as mineral extraction expanded in sparsely populated but ecologically fragile locations where toxic runoff could very conceivably have a ripple effect across the Amazon basin (Zaitchik, 2013). The situation is very fluid, however,

because the government has vacillated on regulations and particularly on tax rates applied to mining operations, which the largest enterprises consider onerous compared to tax rates in other nations (Keen, 2013).

Ecuadorian Educational Reforms

Correa's administration rushed to shore up an educational system deemed to be dysfunctional. At the university level, the prestige of Ecuadorian universities is not anywhere near equal to the prestige of most universities in the U. S. A. President Rafael Correa even called some of them mere "garage universities," insinuating that persons without academic credentials were making use of inadequate physical facilities, such as garages, to found new, unregulated, private enterprises that these founders would call "universities" to make money from tuition paid by students who were desperate to earn degrees (Neuman, 2012, March 18).

Correa did succeed in shutting down some universities. Correa's administration devised a grading system for higher education institutions: A, B, C, D, E, with A considered the best and D considered the lowest acceptable by the national government, meaning that institutions graded as E were slated for closure. Later, after the existing universities had some time to institute reforms, C became the lowest acceptable grade as of December 2013, and D would be slated for closure. After a while, B would become the lowest acceptable grade, with the ultimate goal of having all Ecuadoran universities graded as A quality and on par with North American and other foreign universities. Correa urged Ecuador's institutions of higher learning to add rigor to their academic programs. The autonomy of Ecuador's HEIs, both private and public, decreased as Ecuador's government became the de facto accreditation body throughout the nation. Strength of EFL instruction at the university level does have some impact upon the grades that the government has given to each university.

In addition to closing some universities, Ecuador's government also built five new public universities unlike any of the existing HEIs in that the government ambitiously designed them to eventually be numbered among the world's finest academic facilities, the first of which, la Universidad Yachay, opened its doors to 187 students on March 31, 2014 (Secretaría de Educación Superior, Ciencia, Tecnología e Innovación, 2014, April 1) in the province of Imbabura. Ecuador's top-down approach in founding Yachay was not unlike the top-down approaches Thelin (2011) described in recounting the founding of American universities by religious institutions, government institutions, and philanthropists. International perceptions of university prestige mattered to Correa, and, just as McKernan (2008) might guess, American universities are the ones to emulate. The number of university faculty members that have had their research published in international academic journals is small. He called upon the faculty members in higher education to upgrade their credentials, modernize the courses of study, conduct more research, and publish more scholarly works.

Institutions were not the only educational entities Correa would hold accountable. His reforms also required higher education faculty to upgrade their credentials, possess advanced degrees, conduct research, and publish scholarly works. Hubert B. Van Hoof (2015), a Pennsylvania State University professor in the field of hospitality and tourism, wrote about his one-year experience as a visiting professor at the Universidad de Cuenca. Many faculty members he worked with in Cuenca lacked advanced degrees, so they were fearful about their job security. All of them were unfamiliar with scholarly research protocols. Two colleagues succeeded in getting articles published, but only in nonrefereed journals. Van Hoof became their primary source for information about researching and publishing. The government did increase its financial support for professional development and higher educator salaries, but without help from foreign professors, Ecuadorian faculty members are, to a very great extent, ill-equipped to meet the government's mandates.

Prospective university students also encountered more rigorous requirements. In hopes of educating more of the poor, the government stopped charging tuition at public universities, but applicants to any HEI, public or private, had to achieve certain test scores to be eligible for admission. Prior to this meritocratic standard, not only did the financially advantaged have greater access to higher education, but applicants who had made the right connections, even academically underperforming ones, could gain access, too. Nevertheless, the percentage of enrolled poor students, though larger after tuition reform, remained very small. Also, the financially advantaged still possessed an advantage in scoring well on the required tests (Ponce & Loayza, 2012). The benefits that the Ecuadoran government desired to obtain from education reform efforts are quite clear, such as improving scholarship, publishing more research, expanding trade, better preparing the workforce, growing the economy, interacting more with nations around the globe, heightening the nation's profile, gaining more clout in the global community, modernizing technology, entering the information loop in the information age, providing opportunities for upward mobility for the more impoverished classes, and especially

counteracting the rankling hegemony of powers such as the United States (Van Hoof, 2015).

A Heightened Emphasis on TEFL Professional Development

English is a required subject at most levels of primary school and all levels of secondary school. To obtain an undergraduate degree at any Ecuadorian higher education institution, public or private, students must reach a B1 level of English proficiency. What "B1" means is explained in the next section under the subheading of "Benchmarking English Proficiency." Students in Ecuador cannot opt out of studying English.

Though English study is mandatory, English fluency levels are actually low, and the Ecuadorian government is keenly aware of this. Throughout Latin America, not just in Ecuador, EFL instruction tended to lag in these areas:

- Continuity of national education policy swayed according to who was in government office (Ecuador has had some turnover in leadership in SENESCYT, the nation's education ministry).
- Technology used in classrooms and incorporated into lesson plans needed to be more robust for the information age we are currently in, especially since English is the lingua franca of the information age.
- English instruction often lacked real world context, especially relating to the environments of the everyday lives of the students.
- English instruction failed to make the connections to other core subject areas, such as algebra, health sciences, and geography.

- English instruction was often imbued with Anglophone-nation cultural nuances that students may not have been aware of.
- Students who "learn by doing" often did not encounter such activities built into the teachers' lesson plans.
- Teaching materials of Anglophone-nation origin might not have been wellreceived by teachers, yet the teachers might have lacked adequate training in teaching EFL, let alone in constructing their own teaching materials (Bernaldez, Harris, & Raffo, 2014, March).

Within the field of teaching English as a foreign language, the Ecuadorian government appropriated a considerable amount of money for professional development, for it believed that EFL teachers were inadequately prepared. GO TEACHER, a study abroad program coordinated through a small network of U.S. universities, was, perhaps, the most ambitious professional development program. The government encouraged EFL teachers to apply for sponsorship in the program, and set merit-based standards for selecting from that pool of candidates. This intensive program might take as long as seven months for participants to complete. Testimonials published in the various GO TEACHER newsletters attest that these EFL educators develop an elevated level of enthusiasm toward teaching English. Since its inception, the GO TEACHER program, has provided training in three components of teaching English to speakers of other languages (TESOL): second language acquisition (SLA); American and international cultures; and techniques, methods, and approaches for classroom teaching. The flagship university for the GO TEACHER program is Kansas State University. The other three earliest participating universities participants in this intensive training program were the

University of Kentucky, Valparaiso University, and New Mexico State University. Northern Illinois University joined the GO TEACHER program a little later (Division of Continuing Education, n.d.). These universities began to see some of the intensive program participants return to their campuses from Ecuador once more to work toward masters degrees. These universities, chiefly Kansas State University, also admitted some Ecuadorians into their masters programs and awarded them with degrees. Only a few hundred are accepted into the GO TEACHER program at a time, so it may take a long time for best practices to permeate EFL instruction throughout Ecuador.

Yet, of all the nations of Latin America, Ecuador currently stands out as the one that is most aggressively attempting to make knowledge of the English language more widespread amongst its citizens. New government mandates for English instruction and English proficiency are only one measure of this rapid acceleration. More telling measures are how many government work hours and how much government money is being spent in this attempt to improve the outcomes of EFL study (Bernaldez, Harris, & Raffo, 2014).

Benchmarking English Proficiency

The certification levels referenced here, ranging from A1 at the lowest level to C2 at the highest level, are those set by the "Common European Framework of References for Languages: Learning, teaching, assessment," and are used to gauge proficiency across 39 languages across Europe (Common European Framework of References for Languages [CEFR], 2012). While the CEFR set forth the descriptors of the levels, six in all, the assessment standards are regulated through the Associated Language Testers of Europe ("About ALTE," n.d). The University of Cambridge, instrumental in establishing both the CEFR criteria and ALTE, created the exams for the English language ("Exams," 2008).

In higher education, a national curriculum decided by the Secretaría de Educación Superior, Ciencia, Tecnología e Innovación (SENESCYT) has curtailed HEI autonomy. This does not necessarily mean that the national government micromanages EFL classrooms, particularly not at private universities, but penalties, including an institution being ranked below A and therefore vulnerable to future closure, constitutes a de facto ultimatum for institutions to comply. SENESCYT set the benchmarks. B1 certification is required for all university students and B2 certification for teachers of English in the public primary and secondary schools. SENESCYT chose *Touchstone* (McCarthy, McCarten, & Sandiford, 2008), published by Cambridge University Press, as the textbook series used in all higher education EFL classrooms. University-level instructors, even if their fluency approached that of native speakers, will be required to obtain masters or doctoral degrees were warned that they must obtain advanced degrees in order to keep their jobs. Ecuadorian public school English teachers also had to take the *TOEFL* to help "... design professional development opportunities ..." (Educational Testing Service [ETS], 2012). The pressure to publish research in international academic journals added to the urgency for learning English even among faculty outside university modern language departments.

A Critique of the Required Textbooks

The government selected the *Touchstone* (McCarthy, McCarten, & Sandiford, 2008) series of textbooks from Cambridge University Press. The series consists of four volumes. Each volume included a textbook, a workbook, and computer disks. The publisher sold these three components of each volume either separately or as a whole. *Touchstone: Full Contact* was the title of each volume when all three components were bundled under one book cover. It appeared that Ecuadorian students would only need to obtain the textbook component for their classes. Among its selling points were:

- The full integration of reading, writing, speaking, and listening exercises within this textbook series;
- The alignment with CEFR standards
- The use of genuine English-language utterances—which are more effective in improving listening comprehension than the use of contrived sentences—which Cambridge English has gathered into the largest corpus of the English language in the world (see the Methodology chapter for more information on corpus linguistics).

Though other publishers followed the lead of Cambridge English in creating their own series of fully integrated textbooks, and though they printed indicators on the covers showing the CEFR level of the texts, none of the other publishers had a corpus that matched the size of the one that Cambridge English touted. One should note that Cambridge English's use of a corpus in generating texts is a clear example of single sourcing for the purpose of content reuse, which, in itself, is evidence of information development and technical communicators at work for Cambridge English.

Publishers competing with Cambridge English have also followed the information development model. I perused a series of EAP textbooks published by Pearson in 2017. The titles of each series were *University Success Reading*, edited by Lawrence Zwier; University Success Writing, edited by Maggie Sokolik; and University Success Oral Communication edited by Robyn Brinks Lockwood. While disciplinary literacy texts can be geared for any proficiency level, the most appropriate level for beginning graduate school is what Pearson called "transition level." The transition level book for reading was authored by Lawrence Zwier and Maggie Vosters (2017); the transition level book for writing was written by Charl Norloff and Amy Renehan (2017); and the transition level book for oral communication was written by Christina Cavage (2017). The back cover of each book showed that the transition level was equivalent to a CEFR range of mid-B2 through C1. The B2 requirement for education majors in Ecuador was aligned with the level of preparation needed for study abroad, thus the GO TEACHER program that brought Ecuadorian teachers to the United States can be effective, but the remainder of students who plan to study abroad need to know that they need to reach B2 proficiency, too.

All three of these transition level textbooks contain content from five disciplines: Sociology, as an example of the social sciences; Economics, as an example of fields related to business administration; Biology, as an example of the natural sciences; Humanities; and Environmental Engineering, as an example of technology and applied sciences. The content was developed in collaboration with professors who possessed expertise in these fields, the "subject matter experts," shown on page vii in all three transition level books, namely Marcelo Clerici-Arias, Jonathan D. Greenberg, Robert Pogue Harrison, Lynn Hildemann, and Robert Siegel. This clearly showed that Pearson already used aspects of the information development model. More is written about SME collaboration in the section under the subheading "SME and Information Developer Interactivity" in the literature review chapter, Chapter 2.

The shortcomings of the English textbooks in Iran, as identified by Taki (2008), also applied to the integrated series of textbooks published by Cambridge English and its competitors. The dialogues were intended to be uncontroversial and between peers. Berlin might also object to these series as being the products of expressionists, promoting consumerism and, by extension capitalism. Just as Taki wrote that the textbooks available in Iran were not designed to foster critical thinking, the same may be said of these series. Freire (1970) would additionally take issue with the absence of power differentials between interlocutors in the dialogues, for that does not represent the world as it is, nor does it yield opportunities for pushing back against oppressors. Judging by their placements at vendor kiosks outside of TESOL conference venues and the pitches of the salespersons, the publishers of these series intended these series to be top sellers, not niche fillers, so they were much alike from vendor to vendor in seeking broad appeal and thus are the antithesis of ESP.

I snapped the photos of three cities that you see in the following figures. Publishers desire to sell these same series of textbooks to ESL students in Honolulu, Hawaii (Figure 4); Seoul, South Korea (Figure 5); and Ibarra, Ecuador (Figure 6). How would a textbook series reach all of these audiences?



Figure 4: Honolulu, Hawaii, USA

Honolulu and Seoul are both cities in developed nations, but the English-language learners in Honolulu would be studying English as a second language rather than as a foreign language.

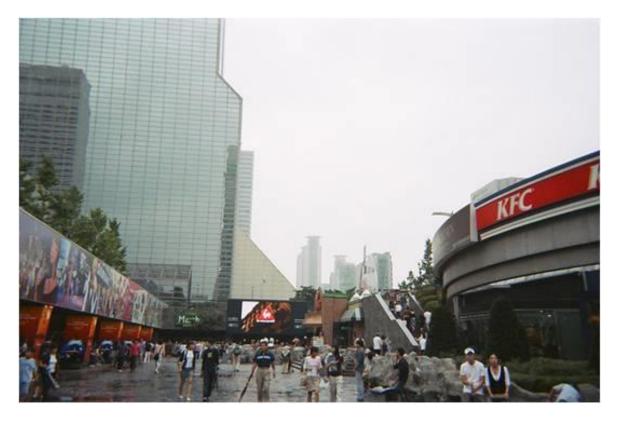


Figure 5: Coex Mall and Coex Tower in the Gangnam District of Seoul, South Korea

ELLs in Seoul and Ibarra would both be studying English as a foreign language, but one should note the opulence of Seoul compared to the cityscape of Ibarra.



Figure 6: Ibarra, capital city of Imbabura Province, Ecuador

How would these series of textbooks tap into an ELL's prior knowledge? What would these textbooks offer in the way of reflecting the backgrounds of the ELLs who study from them? Are all of the ELLs studying English for similar purposes?

The Cambridge English integrated series of textbooks were geared toward an audience more affluent than most Ecuadorians. The Ecuadorian economy remains very different than that in the United States or South Korea. An Ecuadorian ELL's background was probably not reflected in the textbooks' dialogues. It would be interesting to learn whether these texts successfully activated prior knowledge.

Site visits

In late March of 2013, my brother, fluent in Spanish, and I, not fluent in Spanish, traveled to Ecuador to circulate surveys among ELLs enrolled in the universities there. We visited five universities and we were able to circulate surveys at three of them.



Figure 7: The campus of Universidad Estatal de Cuenca

Cuenca is the third largest city in Ecuador and is home to expatriates from a number of foreign countries. As a result, Cuenca residents have relatively more access to English-speakers that they can practice conversation with. The Universidad Estatal de Cuenca (2011), located in the province of Azuay (see Figure 7), hosted more international exchange students than the other campuses in this study. Still, the student body is overwhelmingly comprised of Ecuadorians. At the private Universidad del Azuay (n.d.), in the same city, posters in a stairwell leading to the *Idiomas*—Spanish for

"languages"—department office advertised Cambridge University Press, the publisher of the *Touchstone* (McCarthy, McCarten, & Sandiford, 2008) series of textbooks, but the *Open Mind* series (Rogers, Taylore-Knowles, & Taylore-Knowles, 2010) from Macmillan, which was also aligned to the B1 proficiency level, was on the university bookstore shelves at the time. The Universidad del Azuay offered no higher-level elective courses in EFL, only the required courses. The Universidad Estatal de Cuenca did offer higher-level EFL courses as electives. Both universities were rated A at the time of our visit. Both were downgraded to B in December 2013, and the Universidad Estatal de Cuenca, in particular, was very vocal and very prompt in disputing the government's newly released ratings. U. de Cuenca successfully reclaimed A status.



Figure 8: The campus of ESPOCH in Riobamba Photo by James Williamson

The university in Riobamba (see Figure 8), Escuela Superior Polytécnica de Chimborazo (2012), hereafter referred to by its acronym, ESPOCH, is in the heart of the province (Chimborazo) with the highest concentration of the indigenous descendants of the Inca. The university's student body included more indigenous students than found in the student bodies of the four other universities visited, but mestizo students still outnumbered indigenous students. Nonetheless, the university made a commitment to serve indigenous students, for the enrollment in Kichwa language courses was robust. The university was also mindful of those whose family finances are meager, as evidenced by the "homemade" EFL course materials posted on the internet so that EFL students were not required to buy textbooks that they can ill afford. At the time of our visit, ESPOCH received an A rating from the government. In December 2013, that was downgraded to a B.



Figure 9: The campus of PUCE-SI Photo by James Williamson

Of the two universities in Ibarra (in the province of Imbabura) included in this study, one, the Universidad Técnica del Norte (n.d.) is public, and the other (see Figure 9), Pontificia Universidad Católica del Ecuador Sede Ibarra (2009), is private. The Universidad Técnica del Norte, hereafter referred to as UTN, pilot-tested the new EFL curriculum that was then slated for implementation nationwide. UTN and Ecuador's national education ministry communicated with each other quite a bit and had a good working relationship. The Pontificia Universidad Católica del Ecuador has its flagship campus—which was not part of this study—in Quito, Ecuador's capital, and is affiliated with the Roman Catholic Church. Pontificia Universidad Católica del Ecuador Sede Ibarra, hereafter referred to as PUCE-SI, offered more of the higher level EFL courses, including some at the graduate school level, than the other universities in this study offered. It even offered a masters-level TESOL program. PUCE-SI was not certain to what extent it would be impacted by the nationalized EFL curriculum, since it is private, but the government had already graded the university and scheduled future visits to update evaluations of the university. More indigenous students were in evidence at the universities in Ibarra than at those in the city of Cuenca, but not as many as those who were enrolled at ESPOCH. While PUCE-SI waited to learn what woud be required of them. PUCE-SI was rated A and UTN rated B at the time of our visit. PUCE-SI and UTN were both rated B in December 2013.

Chapter 4: Methodology

This chapter begins with a consideration of TESOL case study guidelines followed by the characteristics and uses of the mixed methods and action research employed in this study. The interdisciplinary nature of the study complicates the methodology so that it deviates from traditional action research and transitions into policy research, but still conforms to case study research. A section is devoted to policy research. The chapter also details the protocols to faithfully follow in conducting human subject research and the actual procedures carried out in compliance with those protocols. Also detailed are the decisions made in crafting a convenience sample survey, item by item, for the collection of data during the site visits of March 2013. For more information about those specific sites, see the end of the preceding chapter, the chapter on Ecuador, Chapter 3. This chapter concludes with an explanation of the methodology used in coding participants' responses to the survey as needed for the reporting of aggregated data. This aggregated data, however, is reported in the following chapter, the chapter on findings, Chapter 5.

TESOL Case Study Guidelines

TESOL International Association, a global organization of teachers of English to speakers of other languages publishes its own refereed collection of scholarly articles in TESOL Quarterly. At TESOL's website, tesol.org (2018), a webpage titled "Qualitative Research: Case Study Guidelines" sets forth what constitutes appropriate methodology for a case study. For the bare minimum eligibility for consideration of case study research submissions, TESOL Quarterly stipulated its criteria as follows.

"Reports of case studies submitted to TESOL Quarterly should include the following elements:

- a statement of the study's purpose and the theoretical context
- the problem or issue being addressed
- central research questions
- a detailed description of the case(s) and explanation of decisions related to sampling and selection
- context of the study and case history, where relevant
- issues of access to the site/participants and the relationship between you and the research participant (case)
- the duration of the study
- evidence that you obtained informed consent, that the participants' identities and privacy are protected, and, ideally, that participants benefited in some way from taking part in the study
- methods of data collection and analysis, either manual or computer-based data management and analysis, or other equipment and procedures used
- findings, which may take the form of major emergent themes, developmental stages, or an in-depth discussion of each case in relation to the research questions; and illustrative quotations or excerpts and sufficient amounts of other data to establish the validity and credibility of the analysis and interpretations

- a discussion of factors that might have influenced the interpretation of data in undesired, unanticipated, or conflicting ways
- a consideration of the connection between the case study and larger theoretical and practical issues in the field" (tesol.org, 2018)

In direct response to these stipulations, this case study meets each of these requirements with the exception of two that are met only in part. The purpose, context, problem being addressed, and central research question all appear in Chapter1: Introduction. A detailed description of the case and explanation of decisions related to sampling and selection appear within this chapter. The duration and context of the study and "issues to the site/participants and the relationship between you and the research participant" is addressed both in Chapter 3: Ecuador, and later within this chapter. The evidence that I "obtained informed consent, that participants' identities and privacy" were protected also appears later in this chapter and in Appendix B. The methods of data collection and analysis, which consisted of transcription of responses onto a spreadsheet within a computer application and coded manually by myself and a consultant to find "major emergent themes" with data collected from three sites and 279 participants appears later in this chapter. Though verbatim quotations from individual participants for illustrative purposes were not included, due to my understanding of the parameters I was given authority to operate within, examples of repeated responses do appear in the discussion of coding and decisions regarding the establishment of categories to report the aggregated data. This limitation appears to be one of two criteria not fully met. "A discussion of factors that might have influenced the interpretation of data in undesired, unanticipated, or conflicting ways," appears in Chapter 5: Findings, though brief

110

mentions of these do appear in other portions of the thesis. The connection between this case study and larger practical issues in the field forms part of the reflections recorded in Chapter 6: Reflection. Explicit, fully elaborated connections with theory, though, are missing, so this last stipulation is the other criterion only met in part. In the interest of transparent disclosure, a deadline for thesis submission led to my decision to submit the manuscript I had, though acknowledged to be deficient in several respects, rather than outright forfeit all opportunity to present this body of research for review. The information needed to meet all of TESOL's minimum eligibility requirements for publication consideration still exist, so additional work may render it minimally eligible for consideration.

On the very same TESOL webpage, in passages appearing before this list of publication requirements, TESOL offers more elaboration for what characterizes methods appropriate for case studies. I shall quote from those particularly relevant to this study. From information contained in the first paragraph on the webpage, the scope of TESOL case studies has widened over time and now includes studies with more "subjective and interpretive" discussions, including such things as "language policies in programs and countries."

Within later passages about assumptions, TESOL grants that, "In language policy research, the case may be a country." Further, case study research may be "interpretive, inductive," wherein "the researcher attempts to identify important patterns and themes in the data."

In terms of context, sampling, and data from the webpage's passages on methods, a researcher ought to: "Provide sufficient contextual information about the case, including [...] data collection site(s)." Also, "explain sampling procedures and case selection [...] Note whether the case in question is [...] a convenience case"

From the webpage's passages on analysis, "Case study analysis generally involves an iterative, spiraling, or cyclical that proceeds from more general to more specific observations. Data analysis may begin informally during [. . .] transcription, when recurring themes, patterns, and categories become evident. Once written records are available, analysis involves the coding of data and the identification of salient points or structures. Having additional coders is highly desirable (but is less common in qualitative research than in quantitative research), especially in structural analyses of discourse, texts, syntactic structures, or interaction patterns involving high-reference categories leading ultimately to the quantification of types of items within categories. Data reduction may include quantification or other means of data aggregation and reduction, including the use of data matrices, tables, and figures."

Mixed Methods

The key instrument in gathering data was an anonymous convenience sample, open-ended question survey administered in person to university students in their classrooms at three separate campuses in Ecuador's highlands. Mixed methods research is suitable for discovery, when a researcher assumes nothing and is ready to observe whatever unfolds. As such it is useful for work in the social sciences, study among diverse human populations, and lends itself to transformative action research and social justice through pragmatism (Mertens, 2007; Feilzer, 2010). In this study, I advocate on behalf of EFL students, and I hope to make a case for transformative action. The mixed

methods instrument used in this case study was a convenience sample survey conducted during the site visits as reported in Chapter 3, the chapter on Ecuador.

Within the TESOL field, though, qualitative ethnographies and case studies abound, usually around a microtopic. This case study was originally intended to be just that, but, as presently constituted, is about language policy in Ecuador, a broader topic addressed in an interdisciplinary way. Using mixed methods would be one strategy to pull together different disciplines, as mixed methods designs are still newly emerging and innovating, but the validity of such designs beyond a few already recognized permutations, is under debate. In some cases, what a researcher may be trying to do is not recognized, so one reaction may be to cast aside typology (Guest, 2012) or to forge ahead and invent a new design to get the information one seeks and just let the debate play itself out after the research has already been published (Immordino-Yang & Gotlieb, 2017). Immordino-Yang and Gotlieb, in particular, wrote that research topics are often on the micro level because it is so easy to use a quantitative or a qualitative design that is readily accepted as reliable and valid. Mixed methods are messy things, and if one crosses disciplinary boundaries, the mess just gets bigger, yet Immordino-Yang and Gotlieb pursued interdisciplinary research because the big questions need to be asked about big picture topics in the search for answers. Sometimes that means stringing studies together to find larger meaning from them even though the smaller studies would seem to be quite disparate from another. More about the research Immordino-Yang and Gotlieb undertook is shared in the section under the subheading, "The Brain of the Learner," in the literature review chapter, Chapter 2.

Though the survey instrument, itself, generates data both quantitative and qualitative, the whole of this study may still be considered a case study. The data generated from the survey are not statistically analyzed, for convenience samples are not scientific. The use of the survey, though, is an example of what usability experts on an information development team might do in the earliest planning stages to help construct user profiles from data collected from actual users, with the understanding that usability studies will continue throughout the information development cycle and subsequent cycles. As elaborated upon further later in this chapter, under the subheading of "Human Subject Research," an instrument such as this one minimizes risk of harm to the subjects under study, so ethical decisions on approval or disapproval from a regulatory body may be made swiftly. Convenience sample instruments may generate a lot of usable data with little cost of money or time. So, within this case study, the administration of this survey does not fundamentally alter case study research design, as the survey is used more as a model of usability testing.

Policy Research

Though my earlier research intent envisioned aspects of action research and social justice, this iteration presented now does not quite fit action research. Action research usually involves the implementation of an intervention aimed at furthering the cause of social justice and then reporting the observations and outcomes generated in the wake of the intervention. In the case of this research, no intervention has taken place. This is mostly due to the discovery that any such intervention based upon this research would have to take place at a systemic level, not an institutional level, let alone a classroom

level. New knowledge, unavailable to me at the outset, revealed that a traditional action research approach would not be viable. What I resorted to, then, was to propose an intervention—a systemic level intervention.

With its focus on language policy, this case study appeared, to me, a better fit for policy research methodology from the field of public administration. This study fits within policy research parameters. Case studies are very common within the field of public administration, and are influential in making policy decisions. Ann Majchrzak (1984) wrote that policy research is pragmatic and that "Policy research is unique in focusing on *action-oriented* recommendations to *fundamental* social problems" (p. 12). Policy research, as it is by nature, multidimensional (p. 18), may be approached from any number of disciplinary perspectives and, as such, must acknowledge the incompleteness inherent in approaching a social problem from just one disciplinary perspective by inviting research from other perspectives to help fill in the knowledge gaps (p. 17). One might say that this acknowledgment of incompleteness is an echo of Freirean views, some of which are summarized in the literature review chapter, Chapter 2, under the subheading "Who Controls Curriculum and What Are the Goals?"

The focus of this policy research is more upon the solution than on problem definition (p. 16), since the Ecuadorian government has already largely defined the previously existing problems in Ecuadorian EFL education. In weighing the pros and cons of being an external researcher, like myself, Majchrzak noted that the external researcher may feel free to think more critically than a researcher from inside a government agency, but may not have as much access to crucial facts, especially the ones related to institutional barriers that might block implementation (p. 17). For outsiders, Majchrzak also pointed out, ". . . researchers following this model must seek out their own audiences for their recommendations" (p. 16).

Majchrzak (1984) noted that policy research is highly likely to go unused if it falls short of exemplifying five characteristics. She wrote that "policy research

- is multidimensional in focus;
- uses an empirico-inductive research orientation;
- incorporates the future as well as the past;
- responds to study users; and
- explicitly incorporates values" (p. 18).

She also noted, "Policy research focuses on malleable variables" (p. 19).

The "empirico-inductive research orientation" (Majchrzak, 1984, pp. 18-19) is not only a mixed methods orientation, but is one that defies straightforward causal hypothesis-testing. It is a pragmatic approach that dispenses with identifying a single underlying theory, for too many variables are in play and the range of measured outcomes is too wide. It is an orientation that gathers some information on the way things are, then builds a model based on that information, then gathers some more information, then changes the model according to the additional information, then gathers some more information, then adjusts the model again, and so on, recursively, much like the writing process with its feedback and revision loop.

"A first aspect of the policy arena relevant to policy research is that research findings are only one of many inputs to a policy decision. [...] [I]f the wishes of constituents directly conflict with research recommendations, the research recommendations will not generally be followed. [...] [P]olicy researchers need to be able to indicate to the decisionmakers why a recommended action will have greater benefits than all other possible actions. A second aspect of the policy arena relevant to policy research is that policy is not made, it accumulates. A final aspect of the policy arena is that the process of making policies is as complex as the social problem itself. The process is complex, because it is composed of numerous different actors, operating at different policymaking levels and juggling a myriad of different policy mechanisms with different intended and unintended consequences" (Majchrzak, 1984, pp. 14-15).

Majchrzak (1984) listed data gathering tools that are most useful in persuading policymakers of the feasibility and desirability of the recommendations advanced by policy researchers.

- "Focused synthesis is somewhat akin to traditional literature reviews [...] However, focused synthesis differs from traditional literature reviews by discussing information obtained from a variety of sources beyond published articles" (p. 59).
- "Secondary analysis refers to the analysis and reanalysis of existing databases" (p. 60).
- Field experiments may be randomized and scientific to determine the effects of the implementation of a policy (p. 61). Analysis tools used by public administrators to know whether a new policy or program implementation has reached its intended goals encounter experimental design problems if either the conditions influencing a control group or are not held constant or if additional variables keep getting introduced to the experimental group over the course of a study, yet ongoing programs "are normally modified continuously. If

administrators identify aspects of a program that are not working, they will change them if possible. [...] This is rational behavior from the point of view of agency administrators, but it makes it difficult to determine the impact of a program, since the 'program' may be three or four different programs over the space of a few months or a year. These problems limit the utility of an experimental design, which assumes a certain constancy" (Welch and Comer, 2001, p. 22). "Quasi-experiments offer an alternative to randomized [and scientific] experiments [... but] the researcher loses the ability to distinguish clearly cause from effect [of new policy implementation. . . Yet] quasiexperiments are particularly useful when there are limits on the data availability, when time is an issue, or when matched (or no) comparison groups provide a more justifiable and less costly alternative to randomized controls. [...] A final issue to consider in doing field experiments is that policy research must not only explain existing societal conditions but project future conditions as well. This projection into the future may be difficult if an experiment is conducted under conditions that are so dynamic that the results are constrained to the particular period of experimentation. In such situations, alternative methods for conducting the policy research effort are probably more appropriate" Majchrzak, 1984, pp. 61-62).

• Among the alternative methods for conducting policy research when field experiments are qualitative methods that include focus groups, one-on-one indepth interviews, and participant observation (Majchrzak, 1984, p. 62) such as ethnography, as Henry (2013) recommended. Henry's take on ethnography appears in the section under the subheading "Technical Communicators Adapting within Larger Organizations," in the literature review section, Chapter 2. Other alternative methods include surveys and case studies (Majchrzak, 1984, pp. 62-63). This study included a convenience sample survey of Ecuadorian university-level EFL students to probe the potential benefits they hoped to realize through EFL study.

• Finally, cost-benefit and cost-effectiveness analyses may clinch the decisions policymakers contemplate. Cost-benefit analyses are difficult to generate because "the difficulty lies with valuation of benefits in monetary terms. Most benefits resulting from policy options cannot be valued monetarily In cost-effectiveness analyses, the monetary costs of a policy option are still computed. However, the benefits of the policy are expressed in terms of its actual or expected outcome" (Majchrzak, 1984, p. 64).

Human Subject Research

The Institutional Review Board for Human Subjects Research, abbreviated as IRB within the text of this thesis, must approve, in advance, any primary research that requires the gathering of data from the study of live human subjects in order to prevent harm to the subjects studied. Without such approval of a research proposal, no matter how precisely that proposal is articulated, no matter how benevolent the researcher's intentions are, no researcher is permitted to attempt to commence the research proposed. The greater the risk of harm, such as those posed by human trials of pharmaceuticals, the greater the extent to which the research proposal is scrutinized and, by extension, the

greater the degree of difficulty in obtaining approval. To obtain approval under such circumstances, researchers must specify how the proposed procedures minimize the risk of harm and must articulate every measure put into place to ameliorate potential harmful effects to the subjects studied. Furthermore, the human subjects, themselves, must consent (and be competent to do so) to being studied. However, if proposed research meets certain conditions that indicate little to no risk of harm, the proposal may be exempted from a full and complete review, thus expediting approval. I proposed a research project that posed no discernible risk of harm to any human subjects, so I applied for expedited IRB approval by way of requesting an exemption from the full IRB review process.

Numbered HS-4194 and titled *Factors Driving Enrollment in EFL Classes at Ecuadorian Universities*, a reproduction of my IRB exemption application appears in the appendixes of this thesis. I received a signed and approved application dated March, 4, 2013 that allowed for data collection within one calendar year from the approval date so long as the procedures I detailed as part of my proposal were adhered to. If, after approval but before research commencement, I sought to alter the procedures, I would have to seek approval for such research amendments via a Change of Protocol application. If I required more than a year's time to gather the data, I would need to seek an extension of time prior to the expiration date of March 4, 2014. On my application, I stated that I sought an exemption from full IRB review because "The study poses no risk to human health and anonymity is assured." As to the purpose of my study, I wrote, "The study will inquire about educational goals and about anticipated benefits of studying English as a foreign language. The subjects to be surveyed are those enrolled in English courses at colleges and universities in Ecuador." As to the procedures of data collection and my pledge of subject anonymity, I wrote, "English students will be invited to respond to a survey printed on paper. Those who choose to participate will handwrite their answers in the spaces provided on the survey sheet. The survey will be printed in English and in Spanish. Those who choose to participate may respond in either English or Spanish. No identifying data are being requested within the survey. Those participating will be instructed to not write their names on the survey sheets. Survey sheets will be gathered after they have been completed." The survey and its supporting documents shown in the appendixes include scripts for initial contact with university educators—by phone and subsequent email message—and for advance instruction to potential survey participants at the time the survey was administered in person. Though survey instructions were printed on the survey sheet, the participants were not to mark the survey sheets until the instructions had been read aloud to them in English and Spanish.

James Michael Williamson, one of my younger brothers, and his wife, Cristina (Rina) Williamson (née Tabango)—who is a native of Ecuador and fluent in Kichwa (her first language), Spanish (her second language), and English (her third language)—translated the IRB application's supporting documents into Spanish. James has lived, off and on, in Ecuador for a total of about three years and is fluent in Spanish. James is also the one who made the scripted initial contacts with Ecuadorian university educators before we departed the United States for our journey to Ecuador.

What I wanted to learn the most from the survey was what benefits Ecuadorian university students hoped to obtain by their study of English. I designed this survey item as open-ended, meaning that there was no predetermined range of responses by way of Likert scale or multiple-choice listings. Participants were free to express themselves with any words they chose at any length they chose. I placed this survey item by itself at the top of the reverse side of the survey sheet to allow ample space for replies. I wanted participants to express how each of them would personally benefit from their study of English. I hoped that they would not feel constrained to list benefits that others expected them to receive, only the ones they anticipated gaining for themselves. Despite these precautions, "because these questionnaires are given to [them] in classroom settings, by researchers or teachers, [they] frame [their] answers in relation to what [the teachers or researchers] want to hear, or what should be true, or even, what had been true up until [the time the questionnaire is circulated]" (Gardner & Leverett, 2012 p. 3). With all the instructions presented to them, I hoped that the students realized that their instructors would never see the raw data and that they would likely never see me again because I would like to believe that if students realized this, they might be more inclined to be candid.

In this light, I wanted to make certain that nothing on the survey sheet would bias responses, albeit with two unavoidable exceptions. Because I would administer this survey in an academic setting and it was about an academic course of study, I had no way to eliminate the bias toward eliciting responses that entailed academic benefits. Because the academic bias was unavoidable, I proceeded to include survey items that sought additional information relative to participants' academic endeavors. I had no way to eliminate the bias toward eliciting responses that entailed benefits related to anything having to do with the United States of America because I was required to disclose who I was, what my purpose was, and where I was from. Nowhere else on the survey sheet but

that one disclosure did I mention the United States. One of the suggested survey items I rejected was one that inquired about a participant's major area of study at the university. My concern was that such an inquiry would bias responses toward career aspirations, since one is prone to choose a major that aligns with a future career choice. If I were to learn of a participant's major or career aspirations, I wanted it to be information that the participant had had chosen to share rather than because it was information that I had solicited.

Survey items needed to be brief and simple. Not only would James and I be interrupting classes to administer the survey and thus wanted the survey to be conducted in as little time as possible to minimize the duration of our intrusion. Also, I was more likely to experience a delay in receiving approval of the IRB application if survey items were more complex. A delay would have been unfortunate, since we planned to arrive in Ecuador at the end of March 2013 to gather our data. In designing survey items to be brief and simple, we ran the risk of not being precise enough to gather exactly the data that we wanted. As it turned out, some of the survey items were more reliable than others in yielding the data we were looking for.

Perhaps the biggest liability of the research proposal was the title, itself. The title did not appear on the survey or in other supporting documents, just on the IRB application itself. The title stated that we were seeking to learn the factors that drove enrollment in university-level English courses in Ecuador. Only after we arrived in Ecuador did we learn of the mandate that all candidates for university degrees must attain B1 level proficiency in English, thus the primary factor driving EFL class enrollment was that the government required it. At that point, I had to concede that the default personal benefit of studying English at an Ecuadorian university was to graduate from said university. Some students, to be sure, would be taking EFL classes beyond the required ones, and some EFL students would not be seeking a degree, just English instruction, but these would be the exceptions. The vast majority of survey participants were enrolled in required EFL courses, not elective ones.

Survey Items

The seven survey items were as follows, with the first six items appearing at the bottom of the front side of the survey sheet with a limited amount of blank space available for replies:

- 1. What is your gender?
- 2. How many years have you studied English?
- 3. What educational certificates, diplomas, or degrees have you already earned?
- 4. Are you currently working toward a university degree?
- 5. What is the highest level of education you plan to obtain?
- 6. What is the name of the university where you are enrolled?
- 7. How will you benefit from studying English? Please write a paragraph why you, personally, are studying English. Please include as many reasons as you can think of that influenced you to study English.

These items appeared unnumbered on the survey because the sequence did not matter. The items could have been listed in any order. I did not bullet-point the list either, because a response to any item was strictly voluntary. I felt that a bulleted or numbered list might seem somewhat coercive, for it might make respondents feel that omitted responses left the list incomplete. I number the items here for convenience in elaborating on the rationale for the inclusion of each survey item and in reporting survey results.

The types of answers I sought from the first six items were those that could have been elicited from closed-ended wordings. Instead, I worded the items in open-ended fashion, which was probably not the best choice in every instance, as I shall elaborate upon in the chapter on findings, Chapter 5, in the section under the subheading "Survey Item Responses and Reliability."

The first survey item about gender was not primarily intended to be a filter for comparing and contrasting survey responses. This item was included so that if our participants were all of one gender, that one would have to note, in characterizing the survey data, that only one gender was surveyed. The Spanish translation for this survey item is not quite the equivalent of the English rendering of it. I asked my brother, James, if the Spanish translation could be rendered more open-ended to accommodate any gender identity, not just a closed-ended binary choice. His response was that, at that time, the construct of gender identity, with all its possible permutations, was not yet fully formed in Ecuadorian society, thus he believed that expressing the exact same meaning in Spanish to an audience of Ecuadorians would require a more cumbersome, convoluted wording.

The second item, asked for the number of years that a participant had studied English. To clarify the intent, I wanted to learn how many years they had studied English over the course of their lives, not just how many at the high school level or how many at the college level. One built-in assumption in formulating this item was that English study was optional. Another built-in assumption was that years of study were the most accurate units of measure to quantify how much English the students already knew. As stated in the chapter on Ecuador, Chapter 3, English study is mandatory, not optional, and English fluency, on the whole, remains low.

The third survey item asked what level of education a student had already attained. Were all the students high school graduates working toward undergraduate degrees? If so, had they earned any certificates in addition to their diplomas? Were some of the students currently enrolled in advanced degree programs?

The fourth survey item, asked whether participants were currently seeking a degree. If some students were voluntarily enrolled in English classes but not seeking a degree, it might be intriguing to find out why. As stated earlier, at the time this survey was drafted, I did not know that English was required for degree-seekers, so I thought that it would be intriguing to find out why degree-seeking students were taking elective English courses. While I thought that English was optional, I still thought that those not seeking degrees would be interesting to learn about because that meant they were going out of their way to take English in contrast to those at the universities seeking degrees.

The fifth survey item asked what the ultimate college degree was that each student sought to obtain over the course of a lifetime. Would they go on to earn masters or doctorates? Was English study part of those plans?

The sixth item asked which institution the English student was enrolled in. It turned out that we gathered only surveys from U. de Cuenca on March 25, 2013, and only surveys from ESPOCH on March 26, 2013, and only surveys from PUCE-SI on March 27, 2013. There were no overlaps. In other words, we would have been able to discover the answer to this question according to the dates we collected the surveys

The seventh item was the most important data that I sought. The responses would reveal what benefits students hoped to obtain by their studies of the English language. Perhaps the benefits would provide clues about motivations

Student motivation aids second language acquisition because it is a long, recursive process. Benefits and motivations are clearly not the same thing. "Motivation [...] is not the reason one wants to learn the language,[sic] motivation is the demonstration of its result: expending effort to learn it, wanting to achieve the goal, and actually enjoying the task as a result" (Gardner & Leverett, 2012, p. 2). For example, a student may be motivated to do well in English classes because the student is infatuated with a classmate and wants to impress said classmate with competent classroom performance. Though this motivation may improve English language acquisition, this social aspect is not a benefit of English language study. I took this factor into account as I decided to ask about the benefits of English study as opposed to asking about the motivations for English study.

Methodology for Coding Responses

Perhaps it may seem that my meaning of the word "coding" ought to be rendered as "decoding," so as to decipher the meanings of words contained in the responses for the purpose of ferreting out the benefits identified within the text. However, "decoding" and "deciphering" are terms that suggest that the text in question is cryptic. The text of the responses was not cryptic. Instead, I applied a code to the responses, a code which appeared as column headers on the spreadsheet where I transcribed handwritten data to a typewritten format, hence the use of the word "coded." In doing so, I employed a technique known as "text analysis."

According to Irene Pollach (2012), "text analysis" is an umbrella term linguists use to denote the examination of text contents. The three approaches covered by this umbrella term are "classic content analysis," "interpretive textual analysis," and "corpus linguistics." However, corpus linguistics requires a computer database. The other two approaches developed at a time when computer use was optional, but before specialized software was available. In time, specialized computer applications aided in employing the first two approaches. Corpus linguistics matured after the development of software tailored for the first two approaches. Pollach compared the computerized iterations of these three approaches, so she used the terms "computer-aided content analysis," "computer-aided interpretive textual analysis," and "corpus linguistics." The approach a researcher chooses depends partly on whether the researcher desires quantitative output, qualitative output, or a combination of both.

Computer-aided content analysis is the quantitative approach. Its development began with simple techniques such as counting how many times a word appeared in a text. A researcher might be looking for the "presence of concepts," or the "positive/negative sentiments in texts," or the "co-occurrence of concepts in texts" (p. 265). Two examples of computer-aided content analysis software available at the time of Pollach's writing in 2012 were "Diction 5.0" and "General Inquirer."

Computer-aided interpretive textual analysis is the qualitative approach. Its development began with simple techniques such as the collocations of words (different

words located in nearly the same place, especially adjacent to each another) within a body of text, plus looking at the key words connected to their surrounding words for the purpose of contextualizing them (KWIC = key words in context). A researcher might be looking for the use of "language in the construction of reality," or the mechanisms for "meaning creation in texts," or for exploring the "relations between texts" (p. 265). Two examples of computer-aided interpretive textual analysis available at the time of Pollach's writing in 2012 were "NVivo" and "QDA Miner."

Corpus linguistics combines quantitative and qualitative approaches. Unlike the other two approaches, corpus linguistics methods are malleable, yielding both advantages and drawbacks. The advantage for the researcher employing corpus linguistics is its flexibility. Much like mixed methods research, the approach can be configured to accomplish a complex purpose and resolve complicated research questions. Because there is no regimented way to employ the approach, the drawback is that novel configurations are open to question by academic peers relative to the validity and reliability of the research. The term "corpus" literally means "body," so corpus linguistics is the "body" of a language. However, corpus linguistics is not to be confused with the term "lexicon," which is the set of all the words of a language (as one might find in an unabridged dictionary). Instead, corpus linguistics employs a database containing representative samples of the actual utterances of a language's users. It is a compilation of authentic language use. As such, a text can be matched up against the corpus to examine language patterns and detect nuances of meanings. Pollach included an example of findings revealed through the corpus linguistics approach (pp. 273-281). The textual input for this example came from actual business correspondence between corporations

and their shareholders in 2006 and in 2008. Corporations' correspondence could be compared to each other and correspondence from any specific corporation in 2006 could be compared to that same corporation's correspondence in 2008 (a year marked by unusually dire financial distress). Collocations of "we believe" and "many of" were more frequent in the 2008 correspondence compared to the 2006 correspondence. The words seem unremarkable in themselves, but when the KWIC technique was applied, these phrases were used to placate shareholders and provide reassurance. "65% of all instances of we believe in the 2008 letters denote a form of reassurance and trust restoration" (p. 276). "Many of" was used for purposes of comparison to show to shareholders that a corporation's poor performance in 2008 was not unique to that corporation ("many of our competitors"), and to suggest that the corporation was in a better position than was expected given the circumstances, or in a better position to rebound, or in a better position than competing firms, etc. (p. 277-278). These phrases took on added meanings and revealed more fully the rhetorical strategies of the corporations. So a researcher using corpus linguistics might be looking for a "comparison of textual patterns with other textual patterns in the same corpus or in other corpora," or a "comparison of textual patterns with contextual patterns" (p. 265). Two examples of corpus linguistics software available at the time of Pollach's writing in 2012 were "WordStat" and "WordSmith Tools."

The convenience sample survey adds the quantitative element to this mixed methods study. That being the case, I decided upon the classic content analysis approach for examining participant responses. Survey responses were recorded in two languages that were sometimes mixed together in the same response. Further, spelling errors and other imperfections in the raw text would have required editing prior to importing the data into a computer program. For these reasons, our text analysis was not aided by computers.

Though I can read and comprehend the Spanish language, I knew that two people coding all of the data would be an improvement in validity and reliability than if I were the only one coding it. John Bennight Nielsen and I did not split the workload into portions for each to do in isolation, for that would defeat the purpose of having two persons coding. Both of us examined each response. If a localized meaning presented us with a coding problem, we consulted James and Rina Williamson, who know the localisms. Any benefit identified by participants had to be represented in the aggregated data to be reported. Word frequency helped guide the decisions about the naming of categories. We examined the text for concepts and grouped together congruent responses. Each time we felt we needed to create a new category to account for a benefit that could not be accounted for in other categories, we revisited prior entries of data to see if anything we had already coded should be recoded due to a potentially better fit within the new category. After we had coded all the data and all the categories had been created, we reviewed the data again to see if we had changed our views about how any of the responses were coded. If we revised any coding, we repeated a review of all the data to be sure we both agreed on the coding. When we reviewed all of the coding from start to finish and found that we had nothing else to revise, we knew we were finished.

Chapter 5: Findings

The rationale for the crafting of this survey and the items, or prompts, constituting the survey appears in the prior chapter on methodology, Chapter 4, under the subheading "Survey Items." The previous chapter also addresses the coding of responses, under the subheading "Methodology for Coding Responses." Coding the responses was necessary for reporting aggregated data, as authorized by the Institutional Review Board for Human Subjects Research. The reporting of raw data was not authorized. See the section of Chapter 4 under the subheading of "Human Subject Research" for details of the protocols followed for administering this survey. To learn more about the sites visited while administering the survey in March 2013, see the section under the subheading "Site Visits" in the chapter on Ecuador, Chapter 3.

This chapter is reserved for a report of the aggregated data after the collection of voluntary responses to a convenience-sample survey circulated among students enrolled in English classes on the campuses of three higher education institutions in Ecuador in March 2013. The three institutions were the Universidad Estatal de Cuenca, in the city of Cuenca, in the province of Azuay; the Escuela Superior Polytécnica de Chimborazo, in the city of Riobamba, in the province of Chimborazo; and the Pontificia Universidad Católica del Ecuador Sede Ibarra in the city of Ibarra, in the province of Imbabura. For the sake of brevity, I shortened these university names to Cuenca, ESPOCH, and PUSE-SI, respectively, throughout this thesis. In some of the tables that follow, these university names were shortened further to single letters of the alphabet, C, E, and P, respectively.

The first section of this chapter reports responses to each of the survey items including the number of participants who declined to respond to each of the items. I also assessed each item's effectiveness in eliciting the types of responses intended when the survey items were crafted, rating the items as reliable or unreliable in light of the responses given. Participants were permitted to respond in either Spanish or English. Some participants mixed Spanish with English in their responses. The remainder of the chapter sorts the aggregated data and displays much of it in tables. The data examined most closely were generated from responses to the final survey item, which read, "How will you benefit from studying English? Please write a paragraph why you, personally, are studying English. Please include as many reasons as you can think of that influenced you to study English."

Survey Item Responses and Reliability

1. What is your gender?

The first survey item turned out to be one of the two most reliable items on the survey, as it yielded the type of data I was looking for and only one participant (less than half of one percent of all respondents) had not recorded a response to the item.

2. How many years have you studied English?

The second survey item yielded a range of responses that, together, made little sense. Out of 279 surveys, 42 different responses were given to this survey item and three participants skipped it. The responses revealed that this survey item was not precise, for some answered with zero years, others with two semesters, yet others with thirteen years, and others with sixteen years. I had anticipated that respondents would report how many years, up to the point in time that this survey was administered, they had studied English. Lack of clarity must have led some to think that I wished to know how many years one had studied English at the university level. Is it possible for someone who has studied English for sixteen years to be sitting in the same class next to a student who has studied English for zero years? According to survey responses, such might be the case. A response of zero years is highly unlikely given that English is a required subject in students' schooling prior to their admission to the university, as stated in Chapter 3, in the section under the subheading, "A Heightened Emphasis on TEFL Professional Development ".

The reason this item was flawed was not difficult to discover. Lack of clarity aside, I had asked the wrong question. In Ecuador, as previously detailed in Chapter 3, in the section under the subheading, "Benchmarking English Proficiency," English language proficiency is benchmarked by CEFR standards, so asking for one's level of proficiency would have been a much better indicator. Educators we spoke to said that though English is taught in all the primary and secondary schools in Ecuador, the educational results between locales and populations are very uneven. Even if the respondents had understood the item clearly, their responses would not have revealed how much progress they had actually made in learning English. The assumption made behind using years of study as units of measurement instead of proficiency levels was based on conditions that exist in the United States. Institutions of higher education in the United States are autonomous. What might be called English 102 at one institution might be English 201 at another institution. This may also be the case for Spanish, French, Japanese, Russian, Arabic, or any other language courses. Therefore, in the USA, asking what one's

language level is yields differing results. The units of credit one may have earned at one university may not be the same as the number of transfer credits awarded at another institution. Therefore, in the USA, asking how many years one has studied a language might really be a better indicator of one's progress, but this is not so in Ecuador.

3. What educational certificates, diplomas, or degrees have you already earned?

Responses to the third survey item revealed that nearly all of the participants in our study were undergraduates. Thirty-one participants did not respond to this survey item. Nearly all of those who answered this item said that they had either obtained no certificates, degrees, or diplomas, or else had achieved a high school diploma. Nine participants replied that they had received certificates of achievement in English bestowed at various private academies. Eight participants had earned some other vocational certificate. Three indicated that they already possessed undergraduate degrees. This item might be improved by changing it to a multiple-choice survey item. The multiple-choice option might be worded so that students would check any boxes that applied to them and would include the choices of English certificates, vocational certificates, high school diplomas, level one degrees, level two degrees, level three degrees, and level four degrees. In Ecuador, degrees of levels one and two are undergraduate degrees, while levels three and four are advanced degrees. Perhaps the multiple-choice options might also include: "Other. Please Specify." I would have gathered the data I was seeking in a multiple-choice format more efficiently, for there were 106 ways that participants had filled in the blank, but all of those responses would have been accommodated within a multiple-choice item and been much easier to tabulate afterward.

4. Are you currently working toward a university degree?

Responses to the fourth survey item revealed that nearly all of the students were, at that time, working toward a degree. No participant skipped this item. There was some very slight misunderstanding of the item, as three of those who said that they were not currently seeking a degree indicated that they actually were currently seeking a degree when they responded to the seventh survey item. For example, one student who said "no" was dually enrolled and was currently seeking a degree at the other institution of enrollment, as the student revealed in response to the seventh survey item, but was fulfilling the English requirement at the institution where we administered the survey instead of at the home institution that would grant the degree. So although seven participants said "no" to this item, the real number of those not seeking a degree at the time they were surveyed was four.

5. What is the highest level of education you plan to obtain?

The fifth survey item needed further clarification. Many participants answered with a degree they were seeking, but a significant number answered, instead, with the highest level of English study they were pursuing. Some answered with the number of semesters they hoped to complete, which would seem to correspond to English study, not to university degrees. Compounding matters was that there were four levels of degrees and six levels of English. The six levels of English are A1, A2, B1, B2, C1, and C2, as previously reported in Chapter 3 in the section under the subheading of "Benchmarking English Proficiency." Many responded with a level number without further elaboration. If they were pursuing the sixth level, they were obviously not talking about a degree because there are no levels of degrees beyond the fourth. If they were talking about the

second level, then they were clearly talking about a degree because that would correspond to an undergraduate degree but not to the level of English because, at the very minimum, one must reach the third level of English (B1) in order to graduate. When the response given was merely third level or fourth level without elaboration, then one is uncertain as to whether a participant understood the item to mean the level of university degree—advanced degrees—or the level of English proficiency—B1 and B2. It appears that many understood the item correctly, for a number of them even specified the name of the degree they sought, and because many undergraduates responded by naming advanced degrees, it appeared that they did understand the item to mean what I intended it to mean. This item, like the third item, would have been better handled as a multiplechoice item, especially because so many of the responses defied interpretation. Fourteen participants left this item blank.

6. What is the name of the university where you are enrolled?

The sixth survey item was the other of the two most reliable survey items. No one skipped this item. We surveyed forty-eight students at U. de Cuenca, thirty-four students at ESPOCH, and 197 students at PUCE-SI. Four students reported dual enrollment, but I have declined to name the other universities of enrollment because doing so might have revealed the identity of a survey participant. This item was universally understood and responded to.

My brother, James, hypothesized that the locations of the universities where the students were enrolled would influence survey responses. He suspected regional patterns would emerge. His suspicion was influential in deciding which campuses to visit during the brief amount of time we could spend in Ecuador. See the section under the subheading of "Site Visits" in Chapter 3 for more information on those campuses. Though this was not a scientific survey, I still wished to sort data according to location.

7. How will you benefit from studying English? Please write a paragraph why you, personally, are studying English. Please include as many reasons as you can think of that influenced you to study English.

This seventh survey item, the crucial one inquiring about the benefits one hoped to obtain through English study, was very reliable. Only 11 participants skipped this item. Only two participants provided responses that did not fit the prompt. One of those two that did not give a response that fit the prompt recorded only a description of what transpired in the classroom on a typical day. The other participant whose response did not fit the prompt desired substantial improvement in the quality of EFL instruction delivered and listed methods thought to be more useful for accomplishing that. 25 participants listed one benefit. The remainder listed more than one benefit. Thirteen of those listing benefits expressed negative feelings about the requirement to learn 3wEnglish. Though many did not list fulfilling a graduation requirement as a benefit, few were enrolled in EFL courses that they were not required to take. Additionally, at the time of our visit, PUCE-SI required English proficiency beyond the Ecuadorian government's mandates, so even if the national B1 requirement for graduation had been fulfilled, that did not mean that a PUCE-SI student had taken all the EFL courses required for graduation from that institution.

Quantification and Tabulation of Survey Responses

Four participants were not enrolled in degree-granting programs; 178 were at least seeking undergraduate degrees; and 97 participants unambiguously expressed desires to pursue advanced degrees. In terms of language of response, 25 survey participants responded in English, 207 responded in Spanish, and 47 responded in a mixture of English and Spanish. Table 1 shows the number of participants responding in each language as grouped by the ultimate degree goals of the participants.

Highest degree desired (total out of 279)	Responded to survey in English (out of 25)	Responded to survey in Spanish (out of 207)	Responded to survey using English and Spanish (out of 47)
None (4 total)	1	1	2
Undergrad (178 total)	10	138	30
Advanced (97 total)	14	68	15

Table 1: Response language grouped by ultimate degree goal

Table 2 shows survey participants' degree goals grouped according to the

institution at which they were enrolled in English classes.

Highest degree desired (total out of 279)	Cuenca (out of 48)	ESPOCH (out of 34)	PUCE-SI (out of 197)
None (4 total)	2	1	1
Undergrad (178 total)	23	22	133
Advanced (97 total)	23	11	63

Table 2: Institution of EFL enrollment grouped by ultimate degree goal

As we coded responses, John Bennight Nielsen and I, were interested in pronouns that indicated the agent to whom the benefits of English study would accrue. The prompt for the seventh item purposely specified ". . . you, personally . . ." to elicit responses using first person singular pronouns. Of the 268 participants who responded to this item, only 136, slightly more than half, responded entirely with first person singular pronouns. Pronouns that were used to refer to such things as inanimate objects or concepts were excluded from these tabulations.

I placed a phone call to James and Rina Williamson, former residents of Ecuador, and read them samples of these seemingly nonconforming responses. In cases where responses strayed from use of the first person singular pronouns, might these be due to a collective, rather than an individual lens? Might it indicate a reluctance to own their own responses, as if these responses were perfunctory or mere echoes of what authoritative figures might have provided as rationales for English study? James and Rina advised us not to assign much meaning to these variations, as there are many ways of saying the same thing. None of the samples seemed out of the ordinary to James and Rina. Nevertheless, Mr. Nielsen and I retained these tabulations. I display this information in Table 3 so that it may be briefly revisited in the following chapter on discussion, Chapter 6.

Table 3 shows which personal pronouns were used in response to item 7. Whereas Table 1 showed ultimate degree goals of survey participants broken down by the chosen language of response and Table 2 showed ultimate degree goals of survey participants broken down by institution of EFL enrollment, Table 3, by virtue of the four characters in the first cell of each row and the corresponding number totals in the last column of each row, shows a more complete breakdown of participant profiles.

The way to read Table 3 is as follows: The ordinal numbers 1st, 2nd, and 3rd in the column headings refer to first person, second person, and third person pronouns with a parenthetical (s) or (p) indicating singular or plural. The column marked "None" is comprised entirely of the eleven participants who did not respond to the 7th survey item. The key to interpreting the meaning of the four characters in the first cell of each row is as follows: The first of the four characters indicates the university at which the participant studied English, with C for U. de Cuenca, E for ESPOCH, and P for PUCE-SI; the second of the four characters indicates gender, with () (empty parentheses) for no response to this item, F or female, and M for male; the third of the four characters indicates the language the participant responded in, with E for English, M for mixed, and S for Spanish; the last of the four characters indicates the highest degree the participant wished to obtain, with n for not seeking a degree, u for seeking an undergraduate degree, and a for seeking an advanced degree.

	1 st (s)	1 st (p)	Mix 1 st (s) (p)	Mix 1 st (s) (p) & 3 rd (s)	2 nd	Mix 1 st (s) & 2nd	3 rd (s)	Mix 1 st (s) & 3 rd (s)	Mix 1 st (s) 3 rd (s) & 2nd	Mix 1 st (p) & 3 rd (s)	None	Total
CFEu	1											1
CFEa						1						1
CFMn	1											1
CFMu	2		1									3
CFMa			1		1			1				3
CFSu	6		1	1				1				9
CFSa	3		2	1			4	1		1	1	13
CMEu	1								1			2
CMMn								1				1
CMMu	3											3
CMMa							1	1				2
CMSu	3	1						1				5
CMSa	3		1									4
EFMu			1									1
EFSn		1										1
EFSu	3	1						1		1		6
EFSa	2		1				2			1		6
EMEu											1	1
EMMu	2		1	1								4
EMSu	3						5			1	1	10
EMSa	4		1									5
P()Sa			1									1
PFEu	1							1			2	4
PFEa	1					1					1	3
PFMu	6		2				1	1				10
PFMa	2						1	2				5
PFSu	37	3	15	1			4	9		6	2	77
PFSa	10	1	2				2	3		1		19
PMEn	1											1
PMEu	2											2
PMEa	3						1	4			2	10
PMMu	5		1	1			1			1		9
PMMa	2							2		1		5
PMSu	19	3	3				4	2				31
PMSa	10		2	2				4		1	1	20
Total	136	10	36	7	1	2	26	35	1	14	11	279

Table 3: Personal pronouns used by each participant indicating to whom benefits of English study would accrue in response to the 7th survey item

Because English study is required for obtaining undergraduate degrees, one might want to gauge how many respondents identified fulfillment of a degree requirement as the only personal benefit anticipated from English study. One might also want to discover whether nearly every participant identified fulfillment of a degree requirement as a personal benefit of English study. One might infer that the more this benefit is cited, especially as the only benefit, the more the study of English is merely perfunctory.

Table 4 displays the frequency of citing the fulfillment of degree requirements as personal benefits, whether solely or in combination with other benefits, as sorted by participants' language of response. Note that some respondents did unambiguously cast English study in a negative light, and this is also shown in the table.

Benefits desired from learning English (out of 279)	Responded to survey in English (out of 25)	Responded to survey in Spanish (out of 207)	Responded to survey using English and Spanish (out of 47)
Did not answer (11 total)	6	5	
Answered, but listed no benefits (2 total)		1	1
Responded negatively and listed graduation as the only benefit (7 total)		7	
Responded negatively but listed benefits beyond just graduation (3 total)		3	
Responded negatively but listed benefits without including graduation among them (3 total)		3	
Listed graduation as the only benefit (4 total)		3	1
Listed graduation plus other benefits (68 total)	4	53	11
Listed benefits without including graduation among them (181 total)	15	132	34

 Table 4: Identification of degree completion as a benefit of English study grouped by chosen language of response

Table 5 shows the same data as table 4, but the data are sorted according to the university

of enrollment.

Null hypothesis: Students enroll in English to fulfill a requirement for graduation	U. de Cuenca (48)	ESPOCH (34)	PUCE-SI (197)	Total (279)
No response to this survey item	1	2	8	11
Responded to this survey item but listed no benefits			2	2
Listed graduation as the only benefit	1	1	9	11
Listed graduation along with at least one other benefit	21	5	45	71
Listed one benefit, but it was a benefit other than graduation	1	4	9	14
Listed more than one benefit, graduation was not listed among the benefits	24	22	124	170

 Table 5: Identification of degree completion as a benefit of English study grouped by institution of EFL enrollment

As already noted, some participants expressed negative views about learning English even though they identified benefits of English study. Table 5 showed that one participant from ESPOCH and six participants from PUCE-SI expressed negative views and identified just one benefit apiece. Five participants from PUCE-SI expressed negative views and identified three benefits each. One participant from PUCE-SI expressed negative views and identified six benefits. The fulfillment of a degree requirement is one benefit category. Sorting benefits into categories is a coding process undertaken by Mr. Nielsen and myself. The last section of the chapter on methodology, Chapter 4, under the subheading "Methodology for Coding Responses," set forth the foundation of our coding process. We arrived at a total of 31 benefit categories. While 11 participants skipped the 7th survey item and two responded to the item without listing any benefits, 266 listed at least one benefit, and 241 of those listed more than one. No participants cited more than eight.

Table 6 shows the numbers of categorized benefits that participants listed in response to the 7th survey item. One should note that the negative numbers in three of the column headers do not signify that less than zero benefits were listed. Instead, those column headers indicate that the responses to item 7 cast English study in a negative light, hence the minus (-) sign, but seven participants who did so listed a benefit, nonetheless, and thus were assigned to the column headed "-1"; five of them listed three benefits each, and thus were assigned to the column headed "-3"; and one of them listed six benefits, and thus was assigned to the column "-6." If these columns devoted to negative responses were eliminated, then the seven who listed a single response but in a negative light would need to be added in with the other 18 who listed just a single response, as shown in the total of the column under "1," thereby bringing the total of all those listing a single benefit up to 25 participants. Likewise, by eliminating any designations for negative responses, those who listed three benefits would total 79, and those who listed six benefits would total 24.

The beginning of each row shows the same four-character participant profile as was used in Table 3, which is repeated here for the reader's convenience: The first of the four characters indicates the university at which the participant studied English, with **C** for U. de Cuenca, **E** for ESPOCH, and **P** for PUCE-SI; the second of the four characters indicates gender, with () (empty parentheses) for no response to this item, **F** or female, and **M** for male; the third of the four characters indicates the language the participant responded in, with **E** for English, **M** for mixed, and **S** for Spanish; the last of the four characters indicates the highest degree the participant wished to obtain, with **n** for not seeking a degree, **u** for seeking an undergraduate degree, and **a** for seeking an advanced degree.

	-6	-3	-1	skip	0	1	2	3	4	5	6	7	8	Total
CFEu									1					1
CFEa											1			1
CFMn										1				1
CFMu									3					3
CFMa						1			1	1				3
CFSu							1	3	3		1		1	9
CFSa				1			2		3	3	4			13
CMEu							1		1					2
CMMn								1						1
CMMu						1	1	1						3
СММа							1				1			2
CMSu								1	2	1	1			5
CMSa								3		1				4
EFMu									1					1
EFSn						1								1
EFSu						1	3	1	1					6
EFSa						1	2	3						6
EMEu				1										1
EMMu							2	1	1					4
EMSu			1	1		1	4	3						10
EMSa							2	2			1			5
P()Sa										1				1
PFEu				2			1			1				4
PFEa				1						1	1			3
PFMu						1	1	3	3	1	1			10
PFMa						1		2	1		1			5
PFSu		2	2	2	1	4	4	26	16	10	6	3	1	77
PFSa	1		1				1	3	5	6	2			19
PMEn							1							1
PMEu						1	1							2
PMEa				2		1	2	2	2		1			10
PMMu					1	1		3	3	1				9
PMMa							1	4					1	5
PMSu		3	3			2	8	8	3	2	1		1	31
PMSa				1		1	4	4	7	2	1			20
Total	1	5	7	11	2	18	43	74	57	32	23	3	3	279

Table 6: The number of EFL study benefits listed by each participant in response to the 7th survey item

As previously noted, when Mr. Nielsen and I had finished with the coding, we had sorted responses into 31 categories of benefits. Often enough, responses lacked specificity, so we had to create categories that were more general, but we looked for opportunities to identify categories that were more specific. An example would be that a participant said that a benefit of learning English was that it was important, or, perhaps, useful, without further elaboration. What is it about English study that makes it important or useful in terms of how the participant hoped to benefit? Because we did not know what made it important, we simply had to tally such a response in the category of "useful general." If a participant did elaborate upon what was useful or important, then we did not tally it in the "useful general" category, for we would have a more specific category we could tally that response in.

Another general category was "*carrera* ambiguous." The Spanish word, *carrera*, might refer to one's professional career or one's academic career. As we coded, we looked for any evidence we could find that would let us know whether *carrera* referred to one or the other or to both. Usually, a participant made clear through context, if not in so many words, which meaning was intended. The only tallies made in the "*carrera* ambiguous" category were those in which we could not determine any meaning more specific than *carrera*. If the participant indicated that *carrera* was meant in the academic sense, then it was tallied in the "graduate" column, for, whether or not English would have been required for a particular major or not, English study was required, just the same, to fulfill a degree requirement—a requirement to graduate. If *carrera* was referring to a professional career, then it was sorted into one of the job-related

categories—categories that also ranged from general to specific—according to the specificity of meaning the respondent assigned to *carrera*.

Yet another general category was "opportunities." If the opportunities were identified by the participant, then we did not need to resort to tallying those replies under "opportunities." Also, "interact with foreigners unspecified" was a more general category; but if the respondent did qualify the interaction, then a more specific category would apply.

Sometimes, our choice to create a separate category was based on participants who made clear distinctions between terms that we might otherwise have deemed synonymous and combined them into just one category. An example would be "opportunities" versus "better future." Could "opportunities" be a subset of "better future" or vice versa? Apparently not, for some indicated both, but indicated them separately. Others mentioned one without mentioning the other. These terms were not synonymous in the eyes of participants, so we had to examine responses more carefully to see if any of them needed to be reclassified from "opportunities" to "better future." Also, some participants called English "universal language." Would that be inclusive of those who referred to the hegemonic behavior of English-speaking nations? Which would be a subset of which? Yet, because participants clearly distinguished between these meanings, we kept the categories separate.

"Hegemony" had one other test to pass in order to survive as a category: Was "hegemony" even a benefit? We added it at the time. Later, a journal article was published by Melina Porto (2014) about EFL in Argentina. Argentina had fought a war against the United Kingdom over the *Islas Malvinas*, or Falkland Islands, so Argentines

150

felt animosity toward the English. Argentina has perhaps experienced English imperialist hegemony more acutely than Ecuador. Porto wanted to discern whether learning English was viewed by Argentines as a bitter burden. In her conclusion, she reported, "Overall, what surfaces is the high regard for English in this country, perceived as additive rather than hegemonic, despite specific political, ideological, and military instances that offer testimony of concurrent imperialistic views" (p. 11). Furthermore, for those who did perceive English study as hegemonic, they considered the upside of learning English: It was an opportunity to push back against imperialism more effectively than expression in Spanish would allow because the intended audience for the airing of their grievances communicated in English, not Spanish. "Hegemony," therefore, can be a benefit.

The remaining categories are not so cryptic, so the rows in Table 7 should be fairly easy to comprehend. The columns require some explanation, though. The header for the first column of tallies reads "All." This is the total number of participants who mentioned the benefit listed at the start of the row. After that, column headers are numbered one through eight. The last three column headers have letters, and they are set off from the numbered columns by a thicker boundary between the cells of column "**8**" and the cells of column "**C**."

The total of each row in the numbered columns equals the total shown in the "**All**" column. Likewise, the total of each row in the last three columns also equals the total shown in the "**All**" column. This signifies two different ways to sort the data, (though there are many more). If a tally appears in a column headed by the number "**1**," that means that the benefit tallied there was the one and only benefit listed by the participant. If a person listed two benefits, then the tallies of the two benefits would be

marked in the column headed by the number "2." In this manner, one may discern patterns of what categories get added to the mix as participants keep adding to the list of benefits. If one divides the total number of tallies in a column by the header number of the column, it would yield the number of participants who listed the number of benefits shown in the column header. The lettered columns sort the numbers differently—by the school of enrollment. **C** is for U. de Cuenca, **E** is for ESPOCH, and **P** is for PUCE-SI. The totals for the each row in the lettered columns also equal the number shown in the same row in the "**All**" column.

Benefits Identified by	All	1	2	3	4	5	6	7	8	С	Ε	P
Participants												
Graduate	82	11	13	21	15	9	10	2	1	22	6	54
Travel	80	1	6	22	20	14	13	1	3	18	5	57
Universal Language	73	2	5	23	21	10	10	1	1	19	7	47
Interact with Foreigners	64		7	15	13	15	9	2	3	11	5	48
Unspecified												
Career Advancement	63	3	8	14	17	11	8	1	1	4	7	52
Find Job	52	1	3	18	9	8	12		1	11	2	39
Interesting, Like	51		7	15	9	11	8		1	15	6	30
Useful General	46	2	2	13	12	9	7	1		8	5	33
Opportunities	46		4	13	12	9	4	2	2	10	6	30
Hegemony	41		4	12	11	8	5		1	4	4	33
International Trade/Business	35		6	9	10	7	2		1	8	6	21
Access to Information	34			8	8	4	9	3	2	5	5	24
Job Requirement	33	1	4	9	8	3	5	2	1	2	3	28
Access to Culture	32			6	8	7	8	1	2	8	1	23
Study Abroad	29	1	4	3	11	7	3			7	3	19
Self-Expression	27	1	1	5	9	4	5	1	1	11	2	14
Multilingualism	26		4	7	6	4	4	1		5	4	17
Advanced Study	20		1	5	5	4	4		1	4	1	15
Better Future	18			7	3	3	4	1		1	1	16
Migrate	16	1	2	6	2	3	2			1		15
Tourism Occupations	15		2	1	4	1	5	1	1			15
Friendships	13			3	4	4	2			7		6
Sales/Customer Service	8		2	1	3	2				2		6
Carrera Ambiguous	4	1	1			1	1					4
Family Abroad	4			1	1	1	1			3		1
Act Globally	4				2	1		1				4
Get Smarter	3				2		1					3
National Development	3				1		1		1	1		2
Easy to learn	1				1							1
Religion	1				1					1		
Pay debt	1						1					1

 Table 7: Benefits of EFL study as reported through surveys

Perhaps the most striking finding from the surveys is that none of the listed benefits were listed by the majority of participants. Eighty-two indicated graduation from college was a benefit, yet 279 were surveyed, 268 of whom responded to this final item on the survey. Even if the ambiguous "useful general" benefit were added to the "graduate" benefit, the total would come to 128, which is still less than half. One might say that each of these benefit categories is a niche. One might also say the results reflect student diversity.

Many participants, yet still the minority, did reveal their field of study unsolicited. Table 8 displays this information. Survey participants from ESPOCH self-reported majors only in the fields of engineering, culinary arts, and agriculture. PUCE-SI also offers majors in those fields, except that the specific disciplines within engineering fields only overlapped in two instances: computer information systems/software development and systems engineering. ESPOCH participants reported majors in mechanical engineering and chemical engineering, but no PUCE-SI participants did. All of the participants reporting majors in environmental science/eco-development were enrolled at PUCE-SI. All of those reporting majors in tourism, graphic design, and hotel administration were enrolled at PUCE-SI. There were overlaps in majors offered by U. de Cuenca and PUCE-SI, but not between U. de Cuenca and ESPOCH. All of the majors offered at ESPOCH and PUCE-SI were in applied fields. U. de Cuenca also offered majors in applied fields that overlapped with majors offered at PUCE-SI, but only U. de Cuenca offered majors in fields of inquiry.

	# of survey respondents (out of a total of 279)
No major or career identified	150
Law	18
Business	16
Accounting	14
Tourism	14
Engineering	13
Environmental Engineering/Eco-	11
development	
Architecture or Interior Design	8
Other Social and Natural Sciences	8
Culinary Arts	6
Hotel Administration	6
Graphic Design	5
Agriculture	4
Other Humanities	3
Education	3

Chapter 6: Discussion

This concluding chapter begins with a reflection on the several strands of thought presented in the prior chapters, including some review of limitations. A section on the foremost recommendations of this thesis for optimizing systemic-level decisions about EFL curriculum through collaboration with technical communicators within an information development framework follows. In the final section, the directives of public policy research are addressed in a way that shows that these recommendations befit the needs of the stakeholders.

In the section under the subheading, "Who Controls Curriculum and What Are the Goals?" from the literature review chapter, Chapter 2, Johan Uvin, as an instructor afforded a great deal of autonomy in developing an ESP curriculum for Chinese healthcare workers, adjusted his instruction when his assumptions about student needs were a little bit off the mark. ESOL instructors in higher education throughout the United States also have a great deal of autonomy and academic freedom. One limitation of this study is that I do not know how much autonomy EFL instructors have in Ecuadorian higher education at the present time. What I do know is that they had less of it during the site visits. Announced reforms that had not yet been implemented at the time were expected to further siphon autonomy from faculty and institutions. Educators and institutions felt at least a small degree of frustration.

The government of Ecuador was also frustrated by the seeming lack of development across the nation, and, in the case of EFL studies, a lack of real progress in English acquisition. If it were not so, why else would the government step in with more regulations along those lines? However, the government cannot meet its goals by its own

156

actions. The nation's EFL proficiency goals can only be met by students. If the students do not meet the goals, then the government will remain frustrated. No doubt, educators work for the government agency, SENESCYT, that oversees higher education, but how do those educators become aware of mismatches between the curricula they set forth and the needs of the students? It was easy for Uvin to find out, because it all transpired in his classroom. How is the government connected to students in the classrooms across Ecuador? The conditions that shaped HEIs in the United States are not the conditions in Ecuador. Can the US be emulated? Should it be emulated? If so, how can you form a higher education system resembling US institutions by means other than the processes that shaped US higher education? Technical communicators can close the distance between stakeholders to make better curricular decisions.

How powerless must the students feel if EFL is required and those who set the objectives are beyond their reach? How can students acquire the English they need for self expression when the textbooks are not about the lives they lead, but are about the lives of people they may not have met before?

One of the other reasons why one might ask whether US HEIs should be emulated is that neuroscience and cognitive psychology keep discovering new insights about learner's mental processes. How agile are US HEIs at keeping up with these developments? When mismatches occur between academic traditions and neuroscience, does that not result in institutional barriers for those from outside academic culture? Might the gap between privileged and disadvantaged narrow if scientific discoveries about learning guided curriculum development? These discoveries ought to have ramifications across all disciplines, but how does that get accomplished without policy research? Policy research is designed for interdisciplinary input while traditional academic research does not often cross disciplinary boundaries. In the chapter on methodology, in Chapter 4, academic research methodology, itself, is a deterrent to asking bigger picture questions, as Immordino & Yang most aptly articulated.

Can educators, all by themselves, generate the solutions? How well do they understand their own students? Uvin's Chinese students did not come forward immediately with their concerns about the curriculum. Out of deference to educators, students may not be 100 percent candid about what improvements may be desired. Anonymous technical communicators who are not stakeholders with stakeholder agendas are more appropriately positioned to obtain candid feedback.

Education research, itself, even when longitudinal, is still largely confined to samples of student populations. What feedback mechanisms are there for research about the long-term impact of education after students have matriculated? In Ecuador, for certain, that feedback loop did not exist.

The happiest, least frustrated stakeholders are probably the textbook publishers. If they make the sales, they are happy. To maximize profits, publishers hope to provide one-size-fits-all textbooks to be sold en masse. The more publishers have to fill niches, the more investments must be made. What will the return on investment be for niche products? The convenience sample survey conducted for this thesis was not scientific, but it brings up a question: Can one size even fit the majority, let alone all?

The responses to the survey, in terms of what benefits students hoped to obtain through their EFL study, no majority emerged. The sought-for benefits were diverse, across thirty-one categories, but even the vaguest categories did not capture the majority of students, let alone the more specific categories. Even combining vague and specific, majority appeal was lacking. The textbooks in use are more suited for students with assimilative motivations, but a cursory look through survey responses indicates that instrumental reasons for pursuing EFL study probably outweigh those.

Separate tracks along ESP veins might be an approach that better fits students' aspirations, but who will develop such instructional materials, especially if the national benchmarked proficiency standards must be met? Can individual educators devise ESP lesson plans and supporting materials that are certain to help students reach those benchmarks? It seems more likely that educators would need to compare notes on that, meaning collaboration probably needs to take place. That would add to educators' workloads unless someone else carried much of the extra burden of collaboration. Collaboration facilitation is what technical communicators can offer.

The publishers might produce more targeted products if convinced of their profitability. Yes, the publishers do employ some technical communication methods, such as single sourcing and collaboration with SMEs. However, the SME collaborations for ESOL textbooks are primarily collaborations between ESOL educators and educators from other disciplines. How does an education insider perspective match up with students who are outsiders? Technical communicators would be a fresh set of eyes to examine how education is working from the outside. Also, as Stanley Dicks observed, as reported in Chapter 2, the literature review chapter, under the subheading "The Information Process Maturity Model," unless organizations are following all of Hackos' recommendations, they are not optimizing. Where are publishers on the IPMM scale? In the section under the subheading "Collaboration" in that same chapter, how are the pitfalls avoided that can sabotage collaboration?

Besides where students want to go, educators should also pay attention to where students came from and, most importantly, where students are at so that educators can meet them there. By that, I mean more than what a placement test shows. Yet placement tests seem to be the starting point for the publishers. To gauge the effectiveness of educators, someone should also inquire where former students went and whether the English they learned in the classroom was useful in getting to where they went. These are all ways in which usability can be tested.

The textbook publishers, however, will not welcome competition against their best-selling series of textbooks. I recommend that the first instructional materials developed by the curriculum development/information development team be something that textbook publishers do not provide, thereby allowing the team to gain experience and expertise before undertaking projects that could lead to head-to-head competition. From my perusal of classrooms during the site visits to Ecuador, I saw that classrooms were mostly teacher-fronted. Few visuals were in evidence when we entered classrooms. Some classrooms have only chalkboards for visual display. Others can accommodate audio-visual equipment. A few have access to additional technology. I think the best place to start is by preparing PowerPoint presentations, as prescribed by Alley and Neely (2005), for the faculty. For the low tech classrooms, the deliverables would probably need to be printed poster-sized and made into a flipchart that could be displayed on an easel. This meets the instructors where they are at, namely, the front of classrooms. As instructors become proficient in other approaches, the classroom formats will surely diversify, but finding out where the instructors currently are should help guide the choice of initial materials to develop.

The presentations should do more than just provide scaffolding for students to bridge from their culture to the culture of those who wrote the textbooks (though they can at least do that much). The presentations should enable students to express themselves from their own cultural standpoint in English. Instead of requiring students to assimilate to Anglophone culture, the English language should be required to assimilate to the students' home cultures.

After production of visual presentation materials, I think that keying in on the phases of learning as delineated by Frey, Fisher, and Hattie (2016) would be fruitful, for there are many elements for supporting those activities that are missing and that vendors do not supply. For example, Socratic seminars are useful in the transfer phase of learning, but how does an educator assign grades to students who participate in those seminars? Someone must devise rubrics for such purposes. Publishers do not do that, but the curriculum development/information development team can.

Information Development Recommendations

What might a curriculum development/information development team within Ecuador's ministry for higher education look like? Figure 10 shows the roles of team members and other stakeholders and the collaborative relationships between them. It shows the flow of deliverables, whether inbound or outbound.

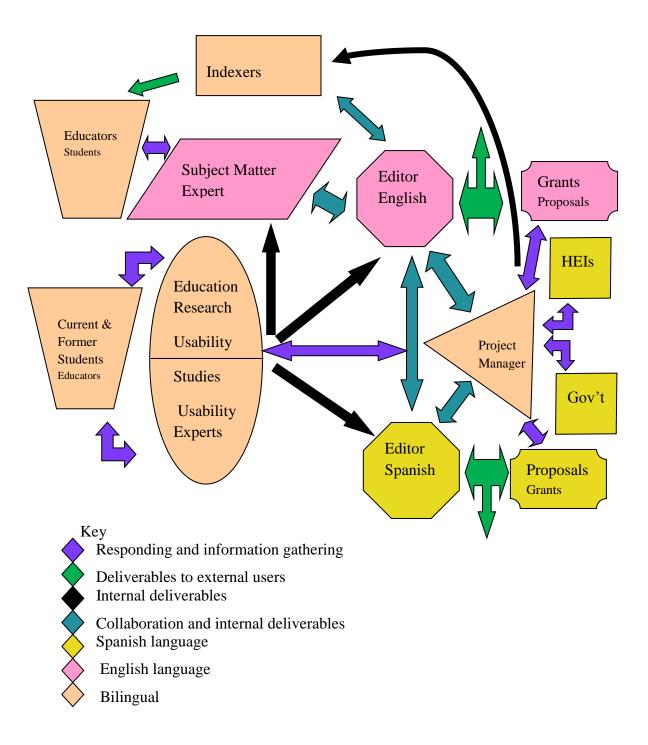


Figure 10: The organizational flow chart for the higher education EFL curriculum development/information development team as proposed for implementation in Ecuador by the author of this thesis.

Figure 10 shows one idea for regulating the workflow between stakeholders, technical communicators, and subject matter experts. The bare-bones staff of ten persons shown here would include a project manager, a subject matter expert, two persons conducting usability studies, a Spanish-language proposal writer, an English-language proposal writer, a Spanish-language technical editor, an English language technical editor, and two indexers. As the work expands, though, the proportions of persons in each role will not remain steady. For example, seven more subject matter experts could be added before another English-language technical editor would be needed (which suggests, at start up, even if the English-language technical editor is still learning on the job, three or four SMEs would probably be a better starting number than just one). Also, if there were multiple project managers overseeing multiple projects, each individual project would not likely need its own dedicated usability experts and would definitely not benefit from having its own indexers. The number of indexers may grow as the workload increases, but they would form an indexing pool, receiving everything to be archived from every project, including deliverables. The entire point of having a content management system with single-sourcing, tagging, and retrieval capabilities is to be able to universally access content in any available media without unnecessary duplication, so a single indexing pool would be desirable even across portfolios, perhaps across the whole ministry, or even the whole Ecuadorian executive branch of government. Also, more job titles might materialize if projects grow larger. For example, if internal user retrieval from the database becomes clunky when accessed through the content management system, technical communicators might need to design better user

interfaces. To accomplish that, they may want to attach web developers to the indexing pool.

In many of Hackos' examples of possible configurations of an information development team, one of the job titles is "information developer," the person who collaborates most closely with the subject matter expert and the one begins the technical writing process by opening a new topic in the content management system for drafting the new deliverable. From there, the work might flow to an editor, but often not, for the information developer may merely continue with revision until a final draft and forward the preliminary deliverable to the project manager for approval prior to dissemination. Also, there may be no indexer, as the information developer may be responsible for tagging the content for key words. Hackos often referred to the job title of information architect, but conceded that the dedicated role is not likely to exist unless the team is large. On smaller teams, technical communicators wear more hats. A proposal writer is a technical communication job title not frequently associated with information development teams. However, the team must be adapted for the larger organization it serves. High tech businesses have other revenue streams to support operations, but for this particular information development team, the team will need to submit budget proposals to the government for funding, and perhaps the only other way, at first, for the team to gain any additional funding would be to apply for grants. Proposing a budget is often a task performed by a project manager, but this team is also an incubator to provide its members with experience in information development so that they can move on to be project managers, themselves, so that information development will proliferate throughout all of Ecuador.

164

The roles at first will be a little different, while team members are trained and while planning ensues for the first project. The SMEs, new to technical communication, will need to be trained to use the content management system. The usability experts, the project manager, the technical editors, and the indexers will have to decide upon the information architecture, including determining which stored data is to be marked as restricted information, setting permissions for who has access to what within the content management system, assigning which team members are responsible for disseminating which types of deliverables in which formats, establishing which approvals from who are required for proceeding with what, authorizing/empowering which team members with complete control over what within what scope, designing stylesheets, deciding upon keyword tags for storage and retrieval, etc., so that deliverables are conveniently useful, readable, and reliable. Planning will require allocating tasks to all team members, estimating time tables, establishing check points to track progress, communicating with all stakeholders, and researching users to create user profiles to ensure that the projects undertaken turn out to be worthwhile rather than worthless. The government's prior archives relating to its initiatives in EFL education that may reside outside the content management system will need to be archived by the indexers so that, as new records to be archived are created, all the records reside in one place. Team members are users, too, (internal memos, meeting minutes, progress reports, usability reports, etc.) so collaborating, getting better acquainted with team members as an audience, and learning each members strengths and interests to leverage those strengths and interests should enhance job satisfaction and performance. Once trained and once planning moves to research and information gathering and from there to composition and invention, the

roles of each team member should become better defined. A breakdown of those envisioned roles follows.

Subject matter experts who are engineers do not usually create content within the content management system. That is not their strength. That is the strength of the information developer, who does that on behalf of the engineers. On this team, though, the subject matter experts are proficient in writing, so they will be their own information developers. They will stay in contact with educators at various universities in the field who will share their insights and the insights from their students as the subject matter expert composes and invents an EFL curriculum at the systemic level. The subject matter expert will confer with other SMEs on the project. The subject matter expert will receive usability reports to guide the creation. The English language technical editors will work closely with the SMEs throughout the process for quality assurance. For growth opportunities, SMEs can be cross-trained by moving into usability studies, indexing, and proposal writing, but not technical editing unless and until proving proficient at all those other tasks. If a former SME then succeeds as a technical editor, the SME may be groomed for project management. One of the goals, though, is to have SMEs begin to develop technical communication curriculum within the EFL curriculum so that more university students will be attracted to the field of English-language technical communication. Another of the goals is for SMEs to rotate back to their respective universities to use their experience in information development to teach students. Other educators may then rotate into an SME role and gain experience so that the capacity to teach technical communication spreads to other universities. In the United States, one of the drawbacks of HEI autonomy is that each technical communication professor

designing curriculum on one's own, which means that they do not ordinarily gain field experience in information development unless they have spent part of their career working away from academia as a practitioner. Because of that experiential gap, practitioners and faculty look for opportunities to network with each other so that faculty can gain insights as to the realities of the workplace and practitioners can avail themselves of the latest scholarship emanating from the universities. Practitioners hope that the new hires recruited as recent university graduates are positioned to succeed in their new workplace, so practitioners have an incentive to stay in touch with professors just as much as professors have an incentive to stay in touch with practitioners. If Ecuador chooses this path of developing a national EFL curriculum for university instruction, then the gap between professor and practitioner will close, as professors will have opportunities as SMEs to be practitioners before resuming professorial duties.

SMEs create content in English, but educators can put their Spanish to work, too, if they join the team in usability studies. Usability studies and SMEs are the two entry points for educators to join the information development team. Any other positions they fill with the team would come after they have accumulated information development experience in one of these entry roles. To be an SME, one would need to be an EFL educator, but to be a usability specialist, one need only have a background in educational research methodology—quantitative, qualitative, and mixed methods—so long as one is proficient in English as well as Spanish. The education researcher would work with a technical communicator who is an expert in usability studies. Since usability studies experts usually gain experience in business and technology organizations, rather than education, they should be able to adapt more easily to this new environment by working

with an educator. The educator, of course, learns from the usability expert how to function as part of an information development team, which is what is desired: an expansion of the pool of candidates qualified to work in information development for the benefit of Ecuadorian enterprise. If the workload grows and more persons are hired to conduct usability studies, the ratio of technical communicators to educators does not matter much so long as they have access to each other so that the technical communicators acclimate to the new environment and mentor the educators and so that the educators gain information development experience and receive mentorship from the technical communicators. The educators may not move into an SME role unless they are also EFL educators. They may, however, move into indexer roles. To move into a proposal writer position, whether in Spanish or in English, one would have to demonstrate excellent skill in writing. To move into technical editing whether in Spanish or English, one would need to have good "soft" skills and, not just excellent, but impeccable writing skills. Technical communicators who are usability experts probably already possess the ability to succeed as a proposal writer, if they wished, or as an indexer. Technical editing and project management are the most demanding in terms of qualifications. Usability studies need to be conducted in both Spanish and English. Preliminary research in which the usability experts get to know the users and build user profiles will likely be conducted in Spanish. They may circulate surveys among university students, as I have done. Though the survey we circulated was not scientific, I confidently predict that, by a wide majority, such survey responses will be written in Spanish over English. Usability studies need to be conducted not just throughout the information development process, but throughout the academic careers of the students

and beyond. What tools worked best? What information was most useful? What needs to be changed? There is no regular ongoing collection of feedback from university graduates to learn if they use English months and years after matriculation. If they do not, usability testers need to know why. If they do, did their EFL education at the universities suit the graduates' purposes? If it did not, usability testers need to discover why. If they did, the usability testers need to compile records of how those graduates are using English so that user profiles can be better defined and project managers, editors, and SMEs know what elements to prioritize so that time, effort, and resources are allocated accordingly. Even indexers would need to know these purposes because it may require the tagging of additional keywords to more finely tune the retrieval of the most relevant and useful content. Usability reports may not be as key to the role of proposal writer, but nonetheless, the whole team should be copied on usability reports. Those reports are what make the process agile and responsive to user needs. Those reports ensure that the next iteration, the next version, the next edition, the next printing of deliverables is always in the pipeline and that improvement never stops. Usability testing can be quick, simple, and inexpensive and still yield good information. But if the research money is there, with educational researchers on board, the potential for more scientific inquiry exists. Proposal writers, both Spanish and English, ought to be urged to acquire such funding. SMEs and editors may suggest some avenues of inquiry for the usability testers that would help inform their creative and revision processes, but direction needs to come from no less than the project manager. The research conducted yields insight as to the effectiveness of the deliverables used by teachers and students. In the process, more is learned about effective teaching, too. In the bigger picture, usability

testing is the number one way in which the most important stakeholders, the students, provide their input in the EFL curriculum development process.

The English-language proposal writer will likely spend more time seeking grants than writing other types of proposals. Occasionally, if the government ministry wishes to solicit bids from outside vendors to provide materials, the English-language proposal writer may issue an RFP (request for proposals). If seeking new English-language or bilingual applicants for employment with the team, the project manager may want the English-language proposal writer to compose the help-wanted entry and post it. The project manager directs the activities of the proposal writer. The proposal writer often needs very specific information in a very timely fashion in order to write an effective proposal. Some of the information may be available among the archived records held by the indexers, but much of the needed information is likely possessed only by the project manager or by other government entities that the project manager will need to contact on the proposal writer's behalf. Once the project manager authorizes the proposal writer to proceed and the writer has obtained all information and drafted the proposal, the preliminary deliverable should be carefully examined in concert with the Englishlanguage technical editor. Once approved by the technical editor, the deliverable may be disseminated to outside parties. The proposal writer with impeccable writing skills and collaborative skills may advance to the position of technical editor, but only if proficient in indexing and usability studies beforehand.

The Spanish-language proposal writer will likely seek funding by drafting budget proposals to submit to the government more often than by applying for grants. In a less developed nation on a still-developing continent, one may suppose that the numbers of

potential philanthropic donors and other fund sources are smaller than those numbers in Anglophone nations. The Spanish-language proposal writer may also compose RFPs. If Ecuador succeeds with this EFL curriculum development initiative, it may generate revenue streams from other Spanish-speaking nations who would prefer to use Ecuador's EFL information products over other vendors, in which case, the Spanish-language proposal writer may solicit such bids. Once a project manager authorizes the Spanishlanguage proposal writer to proceed with a grant application and the proposal writer has gathered all information and drafted a document, the writer need only consult with the Spanish-language technical editor before disseminating the deliverable to outside entities. Because the Spanish-language technical editor does not work with SMEs, the editor is at greater liberty to cross-train and to develop the talent of the Spanish-language technical editor. The proposal writer may have time to assist with indexing or usability testing. The project manager may utilize the Spanish-language technical editor and Spanishlanguage proposal writer as managers-in-training. When HEIs and the government attempt to reach the project manager at times of unavailability, such as vacation, the Spanish-language team members ought to be delegated to act on the project manager's behalf. The Spanish-language team members should seek more training and experience in operations and leadership. The Spanish-language technical editor ought to be the understudy of the project manager and the Spanish-language proposal writer ought to be the understudy of them both. Unless they are bilingual, though, they cannot advance to be the project manager of an EFL curriculum development team. They can, however, become project managers in other information development projects in government or in

other industries and thus help Spanish-language information development proliferate throughout Ecuador.

Because the team is accountable to the government for all that it does, the Spanish-language technical editor will also assist the project manager in corresponding with the government. The editor will likely compose the business letters that the project manager signs before being sent off to other entities in Ecuador, such as the government and HEIs. The Spanish-language editor will examine the preliminary outbound deliverables (grant applications, for example) together with the Spanish-language proposal writer before authorizing dissemination. Some of the deliverables written by the Spanish-language proposal writer will be intended for a government entity rather than other outside entities, so though such a document undergoes the editing process, it is forwarded to the project manager for approval and dissemination. Some deliverables will be bilingual. Whether the SMEs, the editors themselves, or the proposal writers composed the document, a bilingual document must be examined by both editors. The editors need not be proficient in each other's language to the point of being able to do the other's job, but, with translation tools and collaboration, they should be able to get the gist of what is written in the other language to ensure that the meaning in one's own language is faithful to the meaning in the other. These documents will need to be examined by the project manager before dissemination, as the project manager may be the only one on the team proficient enough in both languages to fill in for either editor when they are away from the office. The documents produced by the Spanish-language proposal writer and Spanish-language editor that are not routed through the project manager before dissemination must be archived by the indexers. The Spanish-language

172

editor ought to periodically spot-check the indexers for quality assurance, including content posted to the web. Technical editors edit not just text, but also for any other visual content. They may also edit HTML, XML, and other publishing, tagging, and retrieving tools and data. They ensure adherence to the stylesheet. They integrate information from the usability reports to ensure that usefulness, readability, and reliability are optimized. The Spanish-language editor may also assist in retrieving restricted content in compliance with government audits. The Spanish-language editor may assume most duties of the project manager while away, though it is possible that a few matters may need to be set aside until the project manager's return. The editor may fill in for the absence of a Spanish-language proposal writer, an indexer, or a usability expert, as competency in those roles is a prerequisite for becoming an editor. The editor may be called upon to collaborate with government officials on behalf of the project manager. The editor is to be groomed for project management opportunities outside EFL curriculum development.

Some of the duties of project manager on the English side may be delegated to the English-language technical editor in the project manager's absence, but the English-language technical editor, even if impeccably proficient in Spanish, both spoken and written, supports more of the team's writers, thus possesses less time to perform the functions of a project manager. If the English-language technical editor is a top performer and is qualified to be a Spanish-language technical editor, then the career path to project manager would be by rotating to the position of Spanish-language technical editor is a ditor to be groomed for project management. The English-language technical editor need not have any background as an educator, but does need competency and experience

in usability studies, indexing, and proposal writing. As with the Spanish-language technical editor, the English-language technical editor would spot check the indexers and their output for quality assurance. The English language technical editor would incorporate information provided through usability studies not just for editing purposes, but also for assisting the SMEs through the invention process. Without insistence upon incorporating usability reports into the process, the whole team risks producing deliverables of little value.

Responses to Policy Proposal Expectations

I would like to return to discussing Majchrzak, who I cited as public policy methodology expert in the chapter on methodology, Chapter 4, in the section under the subheading of "Policy Research." Among the first things she noted is that the problems that public policy must address have multiple impacts in many ways, thus one discipline alone, cannot account for all of the approaches to solving such problems. If those from one discipline originate the policy research, they must acknowledge the incompleteness of the approach from one discipline, alone, and invite those of other disciplines to fill in the gaps in order to make policy recommendations viable. Economists, sociologists, linguists, and psychologists are among those in other disciplines who will need to fill gaps. My graduate work in the TESOL field, my undergraduate major in international studies, my varied work history, my hobbies, and my prior political forays all reflect my interdisciplinary perspective. I believe my interdisciplinary way of thinking is revealed within this thesis. Nonetheless, notwithstanding my interdisciplinary perspective, my proposed solution takes into account that, like Freire would remind me, I do not possess the entire solution, hence the information development model that allows for such gaps to be filled in by the various stakeholders and the experts of the various disciplines. The beauty of educators and other stakeholders collaborating with technical communicators is that technical communicators are the facilitators for finding out what is lacking and, with agile information development processes, address those gaps with the next round of deliverables.

Majchrzak (1984) also noted that researchers on the inside of a government institution, such as Ecuador's SENESCYT, know the resources, limitations, and conditions that one might anticipate in assessing the feasibility of a policy proposal, while an outside researcher is not likely to know those parameters. On the other hand, an outside researcher, like myself, has the freedom to explore possibilities that might not be encouraged within the bureaucracy where the inside researchers work. One example of what I do not know is the size of the pool of qualified technical communicators in the Ecuadorian labor market. Outsourcing may be a work-around if the pool is too small. Another example of what I do not know is the national government's budget for EFL instruction. Project management as a component of information development, though, is a tool for expanding or downsizing projects according to budgetary provisions. Yet another example of what I do not know is whether the new administration will change direction from the course set by the Correa administration. If that were to happen, though, the information development model would respond to changing stakeholder values/priorities/needs due to its collaborative nature.

Another impediment to the external researcher is gaining access to the policymaking apparatus to even have the proposal heard. When a government, like the

Correa administration in Ecuador, undertakes research, it is for expediency, thus an audience is built in. The teaching of EFL was one such expediency that put research into motion and that powered subsequent reforms, as noted in the section under the subheading "A Heightened Emphasis on TEFL Professional Development," in the chapter on Ecuador, Chapter 3. As an external researcher, I do not know whether Cambridge English approached the Ecuadorian government as an independent researcher gaining access to a potential user, as in a cold sales call, or whether the Ecuadorian government out of expediency launched its own probe and Cambridge English arrived at a fortuitous time. I, likewise, do not know how Kansas State University, the University of Kentucky, New Mexico State University, Valparaiso University and, later, Northern Illinois University received the GO TEACHER contracts. Did they propose the solution directly to a receptive Ecuadorian government? Or did the Ecuadorian government solicit bids that the universities responded to? Whatever the case may be, the audience was there. For my part, I believe the audience is still there for proposals such as this one because this is a high stakes undertaking with unprecedented resolve and resources dedicated to it to the point that all of South America has taken notice (Bernaldez, Harris, & Raffo, 2014). The main intended beneficiaries of my study are Ecuadorian universitylevel EFL students, who I believe to not be the primary beneficiaries of the Cambridge English textbooks, but the other beneficiaries of my proposal are all the other stakeholders, with the exception of the textbook publishers. That being said, the publishers have little to worry about in the beginning stages of implementation, should this proposal ever get that far. Majchrzak pointed out, "... researchers following this model must seek out their own audiences for their recommendations" (Majchrzak, 1984,

p. 16). Broadly speaking, I have identified two audiences for these recommendations: the Roman Catholic Church, which sponsors many private universities in Ecuador and throughout the world; and the Ecuadorian government. Each of these operates systems of higher education institutions, thus either may have an interest in systemic-scale EFL curricular reform.

More narrowly speaking, my gambit to attract the attention of either of these potential users involves reporting my thesis recommendations back to the institutions where my research was conducted. The EFL faculty members at those institutions, who appear to me to be relatively uninitiated in grant writing even if they happen to be familiar with conducting research, are now laden with the government's expectations of conducting and publishing research and may be mystified about acquiring the means to achieve the ends. This thesis provides ideas to aid with conducting research (especially along the vein of usability studies), ideas to aid with funding research (grant writing), and ideas to aid with publishing research (technical editing) that become possible when educator/researchers work hand-in-hand with competent technical communicators. If the EFL educators avail themselves of these ideas, then the ideas presented in my thesis may have a chance of percolating upward toward the target audiences. Another avenue may be for me to meet personally with influential government officials directly by networking through existing contacts. My existing contacts already are networked with some persons in key positions in Ecuador.

This study could come to the attention of a user audience that I had not targeted and still have an impact. For example, I could find employment elsewhere in the world where systemic EFL reform is of interest and where the current conditions of EFL instruction are somewhat similar to the conditions noted in Ecuador and invite the respective stakeholders to revisit this study. More indirectly, I could contact the U.S. State Department, tap into TESOL professional networks, or make use of social media to reach potential user audiences.

Majchrzak (1984) noted that policy research is highly likely to go unused if it falls short of exemplifying five characteristics. She wrote that "policy research

- is multidimensional in focus;
- uses an empirico-inductive research orientation;
- incorporates the future as well as the past;
- responds to study users; and
- explicitly incorporates values" (p. 18).

She also noted, "Policy research focuses on malleable variables" (p. 19).

The multidimensional focus is one reason why I call for the circle of troubleshooters for resolving problems in EFL instructional outcomes to expand beyond the circle of politicians, educators, and publishers to include technical communicators. Technical communicators will flesh out the neglected dimensions or, for those things they cannot flesh out on their own, invite outside talent to collaborate with them on an as needed basis and still get those gaps filled. Though I can only anticipate the concerns of potential study users without actual discourse between us, I anticipate that the information development model, if implemented, will be continually responsive to all stakeholders.

As also noted in the section under the subheading "Policy Research," in the chapter on methodology, Chapter 4, the "empirico-inductive research orientation"

(Majchrzak, 1984, pp. 18-19) is one that defies straightforward causal hypothesis-testing. It is a pragmatic approach that dispenses with identifying a single underlying theory, for too many variables are in play and the range of measured outcomes is too wide. It takes available information to build a model, and, over the course of implementation and administration, uses new information to alter the model recursively so that policy is responsive to constituents. During this study, I first attempted a research question that turned out to be flawed due to faulty assumptions based on the limited information I had at the time, but I tried, nevertheless, to find a schema to organize the data within. When additional information showed a poor fit for that construct, so I faced a decision whether to throw the data out and start all over again, or follow where the research led me. I followed where the research led me. I had not envisioned this to be policy research when I began this project. I imagined this as being a case study that would gather information about students to share with educators. The educators, in turn, could assess the observations to see if any of it was useful in their praxis. This turned out to be not viable after learning that the options of these educator and student stakeholders were limited. The data I had, which I thought were really interesting data to the point that I did not want to throw it all out, could only be useful at a systemic level. At the systemic level, one is dealing with policy. This is how what was intended to be a traditional, exploratory, mixed methods thesis became action research, then, in recursive fashion, policy research, then became more proposal than thesis. The proposal, itself, the implementation of information development in developing EFL curriculum, allows for even more alterations to the model as available information comes to light. Finally, because of degree requirements I have endeavored to fulfill, the research document

became more thesis than proposal. This mirrors real world public administration. In the realm of public policy implementation, programs are advanced with the knowledge that service delivery will need to be better calibrated as program evaluations are scrutinized, and information development, itself, fits this orientation.

"Policy research explicitly incorporates values" (Majchrzak, 1984, p. 20). The Ecuadorian government has made its values explicit, as reported in this Chapter 3. I have also explicitly expressed my own values of empowering EFL students, as appropriate in action research, through building competencies that afford them more options, through ascertaining their learning objectives, and through amplifying their input as stakeholders.

As to incorporating the future as well as the past (Majchrzak, 1984, p. 19), I point to two trends that seem certain to continue into the future unless the information development model is adopted. One trend, identified by McKernan (2008), is that other nations will attempt to emulate and compete with universities in the United States and that they will try to do so through centralized planning even though U.S. universities, themselves, are autonomous. The other trend, one that has to be pieced together from multiple sources, is that national governments are often dissatisfied with their students' English language proficiency outcomes despite their best public policy attempts at improving those outcomes. In terms of high tech gadgetry and software, information development has tapped into trends and revolutionized them . . . and even invented them. Information development can do the same for EFL curricular reforms. If implemented, I envision that the information development model will revolutionize the first trend by allowing central systemic decisions to be made collaboratively among all stakeholders, thus propelling achievement through collective effort, thereby enabling competition with

U.S. universities more effectively than through the implementation of top-down directives as is current customary practice. I envision that the second trend will be negated by implementing the information development model because it allows students to be agents in determining their own outcomes rather than viewing students as objects to be acted upon to achieve outcomes, which brings me to my next point about malleability.

My own hunch about the failures of past systemic EFL instructional policies is that they are due to a lack of "focus on malleable variables" (Majchrzak, 1984, p. 19). To be more accurate, national education policymakers, no matter which nation, and irrespective of academic discipline, on the whole, have primarily focused on the two variables of students and teachers and then willed them to be more malleable than they really are. McKernan (2008) has rightly pointed out a flaw of objective-based curricula, which is that sentences in syllabi or lesson plans that begin with the phrase "students will be able to" were never authored by students. Likewise, the concept of merit-based teacher pay has not been emphatically embraced by public-school teachers in the United States. To the contrary, teachers have largely resisted merit-based pay. These two specific examples help illustrate the general principle that policymakers have frequently tried to mold both students and teachers as though they were objects subject to manipulation rather than agents to act in their own best interests. Course objectives are malleable. Lesson plans are malleable. Classroom structure and design are malleable. Instructional texts are malleable. If an entity lacks a brain, it is malleable. If it has a brain, it has a mind of its own, and thus is not so malleable. Perhaps, the best one can do with entities with brains is to collaborate with them to achieve outcomes amenable to all.

Even when all advisers to a policymaking body agree on the best course of action, politics can get in the way of pursuing that course of action. "A first aspect of the policy arena relevant to policy research is that research findings are only one of many inputs to a policy decision. [. . .] [I]f the wishes of constituents directly conflict with research recommendations, the research recommendations will not generally be followed. [. . .] [P]olicy researchers need to be able to indicate to the decisionmakers why a recommended action will have greater benefits than all other possible actions" (Majchrzak, 1984, p. 14). The information development model increases the likelihood of satisfying the most impacted constituents because the expanded end user input of that model better positions the end users to "buy into" the recommended reforms.

"A second aspect of the policy arena relevant to policy research is that policy is not made, it accumulates" (Majchrzak, 1984, p. 14). In Ecuador, the policies with respect to higher education institutions and EFL instruction has accumulated rapidly during the Correa administration, thus the adaptation of the information development model for use as a curriculum development model must be an agile adaptation. Also, I propose that the information development team begin with smaller projects, like visual aids and PowerPoint slides to adapt and accessorize the current curriculum to make it more relevant to students' everyday life and more likely allow them to access prior knowledge. I do not urge for head-to-head competition with textbook publishers at the outset. Such capability needs to develop over time. Content reuse, single sourcing, and those working in the indexing pool are important mechanisms within the information development model that anticipate accumulation. "A final aspect of the policy arena is that the process of making policies is as complex as the social problem itself. The process is complex, because it is composed of numerous different actors, operating at different policymaking levels and juggling a myriad of different policy mechanisms with different intended and unintended consequences" (Majchrzak, 1984, p. 15). To reiterate the greatest benefits of adopting an information development model, the collaboration of stakeholders serves to reconcile the different actors, and its recursive practices, with the next update to the curriculum always in the pipeline, serve as a mechanism to amend the curriculum quickly in response to potentially adverse consequences.

Majchrzak (1984) lists data gathering tools that are most useful in persuading policymakers of the feasibility and desirability of the recommendations advanced by policy researchers.

- "Focused synthesis is somewhat akin to traditional literature reviews [...] However, focused synthesis differs from traditional literature reviews by discussing information obtained from a variety of sources beyond published articles" (p. 59). In this study, beyond published literature, information was gathered from press releases, websites, direct contact with Ecuadorian EFL educators, and background information provided by Rina Williamson, a native of Otavalo, Ecuador, and James Williamson, a former resident of Ecuador.
- "Secondary analysis refers to the analysis and reanalysis of existing databases" (p. 60). In this study, the Ecuadorian government had already defined and documented some of the problems with Ecuadorian EFL instruction, thus this study focused more on the problems not yet officially acknowledged by the

government and on proposed solutions. Also, since emulation of and competition with higher education institutions in the United States by means of centralized education policy decisionmaking was one of the objectives of the Ecuadorian government, the secondary analysis included some of the relevant information about United States' higher education institutions and the federal government's initial forays into setting public education policy.

• Field experiments may be randomized and scientific to determine the effects of the implementation of a policy (p. 61). Analysis tools used by public administrators to know whether a new policy or program implementation has reached its intended goals encounter experimental design problems if either the conditions influencing a control group or are not held constant or if additional variables keep getting introduced to the experimental group over the course of a study, yet ongoing programs "are normally modified continuously. If administrators identify aspects of a program that are not working, they will change them if possible. [...] This is rational behavior from the point of view of agency administrators, but it makes it difficult to determine the impact of a program, since the 'program' may be three or four different programs over the space of a few months or a year. These problems limit the utility of an experimental design, which assumes a certain constancy" (Welch and Comer, 2001, p. 22). "Quasi-experiments offer an alternative to randomized [and scientific] experiments [... but] the researcher loses the ability to distinguish clearly cause from effect [of new policy implementation. . . Yet] quasiexperiments are particularly useful when there are limits on the data availability,

when time is an issue, or when matched (or no) comparison groups provide a more justifiable and less costly alternative to randomized controls. [...] A final issue to consider in doing field experiments is that policy research must not only explain existing societal conditions but project future conditions as well. This projection into the future may be difficult if an experiment is conducted under conditions that are so dynamic that the results are constrained to the particular period of experimentation. In such situations, alternative methods for conducting the policy research effort are probably more appropriate" Maijchrzak, 1984, pp. 61-62). In the course of this study, the conditions were very dynamic. The production of the final draft of this thesis coincided with a lull in EFL reform activity due to a succession of the presidency that was slated for May 24, 2017, thus making it an opportune time for reflection prior to the new administration's potential revisiting of the EFL reforms of the Correa administration. If the information development model were adapted, both the randomized scientific field experiments and the quasi-experiments would fall under the larger umbrella of usability studies. Among the advantages of usability studies is the advantage that they can be used to assess a process that is ongoing.

 Among the alternative methods for conducting policy research when field experiments are qualitative methods that include focus groups, one-on-one indepth interviews, and participant observation (p. 62) such as ethnography (Henry, 2013). Other alternative methods include surveys and case studies (Majchrzak, pp. 62-63). This study included a convenience sample survey of Ecuadorian university-level EFL students to probe the potential benefits they hoped to realize through EFL study.

Finally, cost-benefit and cost-effectiveness analyses may clinch the decisions policymakers contemplate. Cost-benefit analyses are difficult to generate because "the difficulty lies with valuation of benefits in monetary terms. Most benefits resulting from policy options cannot be valued monetarily" (p. 64). This study does not include a cost-benefit analysis. The information development model may not be able to produce a cost benefit analysis, either. Cost-effectiveness analyses, while not included in this study, is certainly a function of project management, thus adoption of the information development model allows for this type of analysis. "In cost-effectiveness analyses, the monetary costs of a policy option are still computed. However, the benefits of the policy are expressed in terms of its actual or expected outcome" (p. 64). Project management is fiscally responsive. Project managers present budget proposals to the entities responsible for appropriations. A budget proposal would necessarily identify projected outcomes. The entity responsible for appropriations may approve the budget proposal, may decline it (in which the project must be abandoned, or appropriate an amount of funding not equal to the requested amount, in which case the project must be scaled in size and pursue the outcomes assigned higher priority or estimated to be most affordable. The addition of proposal writers to the information development team should help project managers gain some buy-in from governmental appropriations decision makers. The information development model may also possess the capability to estimate the costs of

186

implementation borne by other entities not covered by the project budget. Grant writing may be able to compensate for appropriations smaller than anticipated and thus preserve the pursuits of some of the desired outcomes that would have otherwise been slated for reduction or elimination. Grant writing may also help reduce the financial burdens that other entities might have to bear in the wake of policy implementation. The cost of employing technical communicators may or may not offset or be offset by the cost of employing educators or bureaucrats to perform the same functions (or perform functions that have, to date, yielded inferior results to those anticipated under the adoption of an adaptation of the information development model), for that would be determined largely by the labor market, but at least the employment of technical communicators under the information development model would allow educators to do what they do best and bureaucrats do what they do best while technical communicators do what they do best.

Linking back to the roles that technical communicators perform, usability experts, project managers, and technical editors can all benefit from text analysis. Since learning organizational culture is so important to technical communicators (because the work they are assigned is so variable from workplace to workplace) to the point that they are encouraged to gather artifacts, especially any documentation they encounter, one would also imagine that technical communicators would also need tools to help them process the artifacts. Computer-aided text analysis tools can help them with that. Usability experts can examine their own text-based assessment tools or examine text generated by internal and external users to draw inferences. Project managers can ensure that documentation conforms to organizational culture. Technical editors can fine tune deliverables to convey just the right message prior to dissemination.

To conclude, this proposal can be transformative, not just for systemic level EFL curriculum and instructional materials responsive to stakeholder needs, but also marks an opportunity for real world experience in information development. This real world experience will open opportunities for Ecuadorian EFL teachers to expand course offerings into technical communication, which will be a boon to students in science, technology, engineering, and mathematics (STEM) disciplines who are so crucial to the nation's development plans. Furthermore, the opportunities for real world experience, promotion, and advancement for Spanish speakers and bilingual speakers through the information development process will increase the pool of qualified candidates to fulfill those roles in other organizations. This information development team, as personnel change from time to time, would be an incubator for the expertise needed to modernize every industry to the cutting edge, which is Ecuador's goal.

Final Reflection

In the summer of 2015, while traveling between my home in Spokane, WA, USA, and siblings I planned to visit in Salt Lake City, UT, USA, I fell asleep while driving my car down I-15, a major highway that crosses the USA from north to south through mostly mountainous and desert terrain. I had set the cruise control at the speed limit of 80 miles per hour. I was about 40 miles north of Idaho Falls at about 7:20 a.m., when the sun was

shining brightly and the road was dry—ideal driving conditions—when I was startled awake by the car's tires rolling across the rumble strip along the median. Caught by surprise, I immediately tried to correct course and slow down, but I overcorrected across the highway and off the berm opposite the median. Hitting the brakes slowed down the front tires of the car, but the rear tires were still traveling fast, causing the car to spin out. The dust of the desert off the road was so fine that it offered no traction, so when the tires encountered the rough sagebrush, the car rolled over.

The car collapsed around me. The engine went dead and would not start again. Windows were smashed. Broken glass and powdery dust were everywhere. My personal effects were buried in the dust and glass shards. The trunk and the rest of the interior of the car were one contiguous cavity, albeit scrunched considerably down from its previous volume. The ceiling fabric and panels were draped over me. Strangely, the air bag did not deploy. Angry at myself for my frequent bouts of drowsiness over a lifetime of suffering from sleep apnea and angry at my car for failing me in the middle of nowhere for no structures were visible from horizon to horizon—I exited the car to find all four tires shredded. This car was going nowhere.

After a minute or two, a motorist in the opposite direction pulled over, called 911, and ventured over to see if I and any passengers were all right. Luckily, I had no passengers aboard with me and no other cars were around when I crashed, for I would have carried guilt with me for the rest of my life if I had been the cause of any casualties. I realized I needed to stop driving for the remainder of my lifetime. While the other motorist was a Good Samaritan on the phone with first responders, I was on the phone with my auto insurance company. When the first responders arrived, they were sure someone was dead inside my car because the damage to it was so severe. At first, they asked me questions about the car's occupants as if I were a bystander. As they approached closer and I began to respond to them, they were clearly astonished that I was the occupant of the car and was unharmed. Still, they urged me to climb into the ambulance to be examined in an emergency room at an Idaho Falls hospital, for shock can prevent the body from sensing an injury immediately after a crash. After a medical examination, I was released from the hospital with a clean bill of health.

I had never feared losing my life throughout the ordeal. I never saw my life flash before my eyes. Though angry, I knew that I would be preserved the whole time, for I felt that calm reassurance that emanates from divine providence. I feel to this day that my life was spared because I still had important work to accomplish before I died. I believe my research on this thesis and the policy recommendations generated by this research needed to be shared. The information development model is underutilized. I believe it constitutes at least a part of my purpose.

I drew up plans for attending whatever the next TESOL International Convention was after the completion of this thesis. Job hunting is part of the plan. Attending research presentations to keep up with the TESOL field is also part of the plan. Networking to identify those who would actually investigate my recommendations and Hackos' (2007) full elaborations with an eye toward possible implementation is the part of the plan that infuses me with the most passion.

I believe, of all the South American nations, Ecuador is the one best positioned to benefit from these recommendations not just because my research was situated there, but because Ecuador is the country most committed to EFL education at this time. They are in full support of EFL and they want a big payoff in return for their investment.

I also believe, however, that many other organizations around the world that make decisions about EFL curricula at systemic levels would also benefit from this research. The partnership between stakeholders facilitated by technical communicators may result in more effective collaboration, more responsiveness to stakeholders, more attention to user needs, more agility in responding to newly emerging research into language learning, more efficiency from single sourcing, more cost effectiveness due to greater efficiency, more open channels of communication, more investigation into what works and what does not work, more funding through proposal writing, more precision and accuracy of deliverables through technical editing, more consistency in the quality and branding of deliverables due to following style guides and other constructs of information architecture, more ability to localize curriculum according to regional contexts, capacity to supplement existing curriculum and instructional materials with material other sources will not provide, more transparency to deter corruption and scandal, more opportunity to innovate and modernize, more training in vital organizational processes, more maturity in information processing, more inclusion of perspectives from multiple disciplines, more realization of national objectives, more prestige conferred by better results, more leveraging of subject matter expertise, more engaged educators, more input from students, and more feedback from former students. Is there anything more? If so, it would be possible to identify what more there is through implementation of this model.

References

"About ALTE" (n.d.). Retrieved from http://www.alte.org/about_alte

- Alley, M. & Neely, K. A., (2005). Rethinking the design of presentation slides: A case for sentence headlines and visual evidence. *Technical Communication*, 52(4), 417-426.
- Amare, N., Nowlin, B., & Weber, J. H., (2011). *Technical editing in the 21st century*.
 Boston, MA: Prentice Hall.
- An, S. (2013). Schema theory in reading. *Theory and Practice in Language Studies 3*(1), 130-134.
- Arsel, M. (2012). Between 'Marx and markets'? The state, the 'left turn' and nature in Ecuador. *Tijdschrift Voor Economische En Sociale Geografie (Journal of Economic & Social Geography)*, 103(2), 150-163. doi:10.1111/j.1467-9663.2012.00709.x
- Baker, W. (2009). The cultures of English as a lingua franca. *TESOL Quarterly*, 43(4), 567-592. Retrieved from <u>http://www.jstor.org/stable/27785045</u>
- Becker, M. (2013). The stormy relations between Rafael Correa and social movements in Ecuador. *Latin American Perspectives*, *40*(43), 43-62. doi:

10.1177/0094582X13479305

Berlin, J. (1988). Rhetoric and ideology in the writing class. *College English*, *50*(5), 477-494.

Retrieved from http://www.jstor.org.ezproxy.library.ewu.edu/stable/377477

- Bernaldez, B., Harris, J., & Raffo, M. (2014, March). *The Latin American English language learner in the 21st century*. Panel discussion presented at the TESOL 2014 International Convention and English Language Expo, Portland, OR.
- Byun, K., & Kim, M. (2011). Shifting patterns of the government's policies for the internationalization of Korean higher education. *Journal of Studies in International Education 15*(5), 467-486. doi: 10.1177/1028315310375307
- Cambridge English. (2013). Touchstone blended learning: The world's first fully blended four skills English language course. Retrieved from http://www.cambridge.org/us/esl/catalog/subject/project/item404931/Touchstone/ ?site_locale=en_US¤tSubjectID=2489430
- Cavage, C. (2017). University success oral communication, transition level. R. B. Lockwood, (Ed.). Hoboken, NJ: Pearson Education, Inc
- Common European Framework of References for Languages. (2012). Education and language, language policy. Retrieved from

http://www.coe.int/t/dg4/linguistic/DNR_EN.asp

Conaghan, C. & de la Torre, C. (2008). The permanent campaign of Rafael Correa: Making Ecuador's plebiscitary presidency. *The International Journal of Press/Politics*, 13(3), 267-284. doi: 10.1177/1940161208319464

Correismo barely hangs on; Ecuador. (2017, April 8). The Economist, p. 46.

- Creswell, J. W. (2014). Research design: *Qualitative, quantitative, and mixed methods approaches*, (4th ed.). Los Angeles, CA: Sage.
- Critchlow, J., Ray, D. S., & Ray, E. J. (2000). Database-enhanced information development: An informal case study. *Technical Communication* 47(4).

Retrieved 2 Jun 2015 from:

http://web.a.ebscohost.com.ezproxy.library.ewu.edu/ehost/detail/detail?sid=aedf4 225-8b2c-4872-95b0-

539e81e572f8%40sessionmgr4001&vid=1&hid=4204&bdata=JnNpdGU9ZWhvc 3QtbGl2ZSZzY29wZT1zaXRl#db=ufh&AN=3786725

- Cross, R., Rebele, R., & Grant, A. (2016). Collaborative overload. *Harvard Business Review Gardner94*(1-2), Retrieved from http://www.gse.harvard.edu/news/16/05/lift
- De Felice, D., & Santos, L. (2014, March). Integrating brain research in EFL practice to deal with diversity. Workshop presented at the TESOL 2014 International Convention and English Language Expo, Portland, OR.
- Delpit, L. D. (1995). *Other people's children: Cultural conflict in the classroom*. New York, NY: New Press: Distributed by W.W. Norton.
- Dicks, R. S. (2013). How can technical communicators manage projects? In J. Johnson-Eilola, & S. A. Selber (Eds.), *Solving problems in technical communication* (pp. 310-335). Chicago, IL: The University of Chicago Press.
- Division of Continuing Education (n.d.). Go teacher. Kansas State University. Retrieved from http://www.dce.k-state.edu/conf/goteacher/
- Educational Testing Service. (2012, July 12). Ecuador's Ministry of Education announces the selection of the *TOEFL* test to strengthen English-language instruction. Retrieved from

http://www.ets.org/newsroom/news_releases/ecuadors_ministry

Embassy of Ecuador. Washington, DC. (2017). About Ecuador: Regions. Retrieved from http://www.ecuador.org/nuevosite/informacionecuador_regiones_e.php Escuela Superior Polytécnica de Chimborazo. (2012). Retrieved from http://www.espoch.edu.ec/

"Exams" (2008). Retrieved from https://www.teachers.cambridgeesol.org/ts/exams

- Feilzer, M. Y. (2010). Doing mixed methods research pragmatically: Implications for the rediscovery of pragmatism as a research paradigm. *Journal of Mixed Methods Research 4*(1), 6-16. doi: 10.1177/1558689809349691
- Franken, M. (2012). Re-situation challenges for international students "becoming" researchers. *Higher Education*, 64(6), 845-859. doi: 10.1007/s10734-012-9532-5
- Freire, P. (1970). *Pedagogy of the oppressed*. (M. Bergman Ramos, Trans.). New York,NY: Herder and Herder.
- Frey, N., Fisher, D., & Hattie, J. (2016). Surface, deep, and transfer? Considering the role of content literacy instructional strategies. *Journal of Adolescent & Adult Literacy 60*(5), pp. 567-575.
- Gardner, R. C. & Leverett, T. (Reviewer) (2012, September) Motivation and second language acquisition: The socio-educational model (2010). [Book review] TESL-EJ: The Electronic Journal for English as a Second Language 16(2), 1-3.
- Gibbons, P. (2002). Scaffolding language, scaffolding learning: Teaching second language learners in the mainstream classroom. Portsmouth, NH: Heinemann.
- Green, C. (2015). Internationalization, deregulation, and the expansion of higher education in Korea: An historical overview. *International Journal of Higher Education 4*(3), 1-13. doi: 10.5430/ijhe.v4n3p1

Guest, G. (2012). Describing mixed methods research: An alternative to typologies. Journal of Mixed Methods Research 7(2), 141-151. doi:

10.1177/1558689812461179

- Hackos, J. T. (2007). Information development: Managing your documentation projects, portfolio, and people. Indianapolis, IN: Wiley Publishing, Inc.
- Henry, J. (2013). How can technical communicators fit into contemporary organizations?In J. Johnson-Eilola, & S. A. Selber (Eds.), *Solving problems in technical communication*. Chicago, IL: University of Chicago Press.
- Holliday, A., & Aboshiha, P. (2009). The denial of ideology in perceptions of 'nonnative speaker' teachers. *TESOL Quarterly*, 43(4), 669-689. Retrieved from http://www.jstor.org/stable/27785049
- Immordino-Yang, M. H. (2016). Emotion, sociality, and the brain's default mode network: Insights for educational practice and policy. *Policy Insights from the Behavioral and Brain Sciences 3*(2), 211-219. doi: 10.1177/2372732216656869
- Immordino-Yang, M. H., & Gotlieb, R. (2017). Embodied brains, social minds, cultural meaning: Integrating neuroscientific and educational research on social-affective development. *American Education Research Journal*, 54(1S), 344S-367S. doi: 10.3102/0002831216669780
- Jenkins, J. (2006). Current perspectives on teaching World Englishes and English as a lingua franca. *TESOL Quarterly*, 40(1), 157-181. Retrieved from http://www.jstor.org/stable/40264515
- Johns, A. M., & Price-Machado, D. (2001). English for specific purposes: Tailoring courses to student needs—and to the outside world. *Teaching English as a second*

or foreign language. M. Celce-Murcia, Ed. Boston MA: Heinle, Cengage Learning, pp. 43-54

Johnson-Eilola, J., & Selber, S. A. (2013). *Solving problems in technical communication*. Chicago, IL: University of Chicago Press.

Kachru, B. B. (1996). World Englishes: Agony and ecstasy. *Journal of Aesthetic Education*, 30(2), 135-155. Retrieved from http://www.jstor.org.ezproxy.library.ewu.edu/stable/3333196

- Keen, K. (2013). Better than nothing: Ecuador eases mining laws. *Mineweb*. Retrieved from http://www.mineweb.com/mineweb/content/en/mineweb-central-southamerica?oid=194370&sn=Detail
- Krashen, S. D. (1982). Principles and practice in second language acquisition. Oxford;New York: Pergamon.
- Larsen-Freeman, D. & Anderson, M. (2011). *Techniques & principles in language teaching* (3rd ed.) Oxford, UK: Oxford University Press.
- Lockwood, J. (2012). Are we getting the right people for the job? A study of English language recruitment assessment practices in the business processing outsourcing sector: India and the Philippines. *Journal of Business Communication, 49*(2), 107-127. doi:10.1177/0021943612436975
- Majchrzak, A. (1984). *Methods for policy research*. Newbury Park, CA: Sage Publications.

Matlin, M. W. (2013). Cognition (8th ed.) Hoboken, NJ: John Wiley & Sons, Inc.

- Matsuda, A., & Matsuda, P. K. (2011). Globalizing writing studies: The case of U.S. technical communication textbooks. Written Communication 28(2), 172-192. doi: 10.1177/0741088311399708
- McCarthy, M., McCarten, J., & Sandiford, H. (2014). *Touchstone* (2nd ed.). Cambridge, UK: Cambridge University Press.
- McKeachie, W. J., & Svinicki, M. D. (2010). *McKeachie's teaching tips: Strategies, research, and theory for college and university teachers*. Belmont, CA; Andover,
 MA: Wadsworth ; Cengage Learning [distributor].
- McKernan, J. (2008). Curriculum and imagination: Process theory, pedagogy, and action research. London, UK: Routledge.
- Medgyes, P. (2001) .When the teacher is a non-native speaker. In M. Celce-Murcia (Ed.), *Teaching English as a second or foreign language*. Boston MA: Heinle, Cengage Learning, pp. 429-442.
- Mertens, D. M. (2007). Transformative paradigm: Mixed methods and social justice. Journal of Mixed Methods Research 1(3), 212-225. doi:

10.1177/1558689807302811

- Mijeski, K. J., & Beck, S. H. (2011). *Pachakutik and the rise and decline of the Ecuadorian indigenous movement*. Athens, OH: Ohio University Press
- Mikelonis, V. M., Betsinger, S. T., & Kampf, C. (2004). *Grant seeking in an electronic age*. New York, NY: Pearson Longman.
- Murray, D. (1972). Teaching writing as a process not product. In V. Villanueva (Ed.),
 (1997). Cross-talk in comp theory: A reader. Urbana, Ill.: National Council of Teachers of English.

- Neuman, W. (2012, March 18). "Garage universities" are bracing for school reform. *The New York Times*. Retrieved from http://www.nytimes.com/2012/03/19/world/americas/in-ecuador-garage-universitiesare-bracing-for-reform.html?pagewanted=all& r=0
- Nishino, T. (2012) Modeling teacher beliefs and practices in context: A multimethods approach. The *Modern Language Journal 96*(3), 380-399. doi: 10.1111/j.1540-4781.2012.01364.x0026-7902/12/30-299
- Norloff, C. & Renehan, A. (2017). *University success writing, transition level*. M. Sokolik, (Ed.). Hoboken, NJ: Pearson Education, Inc.
- Ostler, N. (2005). *Empires of the word: A language history of the world*. New York, NY: HarperCollins Publishers.
- Oxford, R. L. (2001). Language learning styles and strategies. In M. Celce-Murcia (Ed.), *Teaching English as a second or foreign language*. Boston MA: Heinle, Cengage Learning, pp. 359-366.
- Park, J. (2014, March). English-medium instruction: What do university professors know and need? Lecture presented at the TESOL 2014 International Convention and English Language Expo, Portland, OR.
- Pollach, I. (2012). Taming textual data: The contribution of corpus linguistics to computer-aided text analysis. *Organizational Research Methods*, 15(2), 263-287. doi:10.1177/1094428111417451
- Ponce, J. & Loayza, Y. (2012). Elimination of user-fees in tertiary education: A distributive analysis for Ecuador. *International Journal of Higher Education 1*(1), 138-147.

- Pontificia Universidad Católica del Ecuador Sede Ibarra. (2009). Retrieved from http://pucesi.edu.ec/
- Porto, M. (2014). The role and status of English in Spanish-speaking Argentina and its education system: Nationalism or imperialism? *Sage OPEN*, January-March 2014, pp. 1-14. doi: 10.1177/2158244013514059
- Prada-Trigo, J. (2016). Governance and territorial development in Ecuador: The Plan Nacionoal del Buen Vivir, in Zarua, Piñas, and Portovelo. *Journal of Latin American Studies* 49, 299-326. doi: 10.1017/S0022216X16001474
- Rogers, M., Taylore-Knowles, J., & Taylore-Knowles, S. (2010). *Open Mind*. Oxford, UK: Macmillan Education.
- Russell, K. (2007). DITA (Darwin Information Typing Architecture). *Computerworld*, 41(14), 30. Retrieved 18 May 2015 from: http://web.b.ebscohost.com.ezproxy.library.ewu.edu/ehost/pdfviewer/pdfviewer?s id=1dcd0039-9e89-47a2-bd35-

a8330a3bea61%40sessionmgr114&vid=1&hid=118

- Sampson, R. (2012). The language-learning self, self-enhancement activities, and selfperceptual change. *Language Teaching Research*, 16(3), 317-335. doi:10.1177/1362168812436898
- Sarasin, J. (Director). (2011). *Ecuador: Rainforest vs. globalization* (Motion Picture) Ecuador: Cinema Libre Studio
- Secretaría de Educación Superior, Ciencia, Tecnología e Innovación (2014, April 1). El boom del conocimiento arranca en la Universidad Yachay. Retreived from

Educación Superior website: http://www.educacionsuperior.gob.ec/el-boom-delconocimiento-arranca-en-la-universidad-yachay/

Shanahan, T. & Shanahan, C. (2012). What is disciplinary literacy and why does it matter? *Topics in Language Disorders, 32*(1), 7-18. doi:

10.1097/TLD.0b013e318244557a

- Taki, S. (2008). International and national curricula: The question of ideology.
 Language teaching research, 12(1), 127-142. doi: 10.1177/1362168807084503
- TESOL International Association. (2018). Qualitative research: Case study guidelines. Retrieved from http://www.tesol.org/read-and-publish/journals/tesol-quarterly/tesolquarterly-research-guidelines/qualitative-research-case-study-guidelines
- Thelin, J. R. (2011). A history of American higher education, (2nd ed.). Baltimore, MD:The Johns Hopkins University Press.
- U.S. Department of State (2014, March). *The dances of English language teacher training around the world*. Panel discussion presented at the TESOL 2014 International Convention and English Language Expo, Portland, OR.
- Uchikoshi, Y., Yang, L., Lohr, B. & Leung, G. (2016). Role of oral proficiency on reading comprehension: Within-language and cross-language relationships. *Literacy Research: Theory, Method, and Practice* 65(1), 236-252.

Universidad de Cuenca. (2011). Retrieved from <u>http://www.ucuenca.edu.ec/</u>

Universidad del Azuay. (n.d.). Retrieved from http://www.uazuay.edu.ec/

Universidad Técnica del Norte. (n.d.). Retrieved from

http://www.utn.edu.ec/web/portal/

- Uvin, J. (2011). Designing workplace ESOL courses for Chinese health-care workers at a Boston nursing home. In K. Graves (Ed.) *Teachers as course developers*. New York, NY: Cambridge University Press, pp. 39-62.
- Van Hoof, H. B. (2015). Ecuador's efforts to raise its research profile: The Prometeo Program Case. *Journal of Hispanic Higher Education 14*(1), 56-68. doi: 10.1177/1538192714543664
- Wolf, J. P. (2013). Exploring and contrasting EFL learners' perceptions of textbookassigned and self-selected discussion topics. *Language Teaching Research*, 17(1), 49-66. doi:10.1177/1362168812457535
- World Wide Web Consortium, (MIT, ERCIM, Keio, Beihang). (2013) Extensible
 Markup Language (XML). W3C Information and Knowledge Domain. W3C.
 Retrieved 3 Jun 2015 from http://www.w3.org/XML
- Young, V. A., Martinez, A. Y. eds., & National Council of Teachers of English. (2011).
 Code-meshing as World English: Pedagogy, policy, performance. Urbana, IL:
 National Council of Teachers of English.
- Zaitchik, A. (2013, February 10). "To get the gold, they will have to kill every one of us": The most-storied warrior tribe in Ecuador prepares to fight as the government sells gold-laden land to China. *Salon*. Retrieved from http://www.salon.com/2013/02/10/to_get_the_gold_they_will_have_to_kill_every _one_of_us/
- Zwier, L. & Vosters, M. (2017). University success reading, transition level. L. Zwier,(Ed.). Hoboken, NJ: Pearson Education, Inc.

Appendix A: List of Acronyms and Abbreviations

A1: Lowest level of language proficiency according to CEFR standards

A2: Second lowest level of language proficiency according to CEFR standards

ALTE: The Association of Language Testers in Europe

B1: Third lowest level of language proficiency according to CEFR standards

B2: Fourth lowest (third highest) level of language proficiency according to CEFR standards

C1: Fifth lowest (second highest) level of language proficiency according to CEFR standards

C2: Sixth lowest (highest) level of language proficiency according to CEFR standards

CBI: Content-based instruction

CEFR: Common European Framework of References for Languages: Learning, teaching, assessment

CLT: Communicative Language Teaching

DITA: Darwin Information Typing Architecture

DMN: Default Mode Network

EAP: English for academic purposes

EFL: English as a foreign language

ELL: English language learner

EMI: English as the medium of instruction

ESP: English for specific purposes

ESPOCH: Escuela Superior Polytécnica de Chimborazo

- ETS: Educational Testing Service
- EWU: Eastern Washington University
- HEI: Higher education institution
- IPMM: Information process maturity model
- J. D.: Juris Doctor
- KWIC: Key words in context
- L1: First language (native language)
- L2: Second language
- L3: Third language
- MA: Master of Arts degree
- MA-TESL: Master of Arts program in the teaching of English as a second language
- PA: Participatory Approach
- PBI: Project-based instruction
- Ph. D. Doctor of Philosophy degree
- PSAT: Preliminary Scholastic Aptitude Test
- PUCE: Pontificia Universidad Católica del Ecuador
- PUCE-SI: Pontificia Universidad Católica del Ecuador-Sede Ibarra
- RFP: Request for proposals
- SENESCYT: Secretaría de Educación Superior, Ciencia, Tecnología e Innovación
- (translation: Secretariat of Higher Education, Science, Technology, and Innovation)-
- Ecuador's ministry of higher education
- SLA: Second language acquisition
- SME: Subject matter expert

STEM: Science, technology, engineering, mathematics

- TBI: Task-based instruction
- TEFL: Teaching of English as a foreign language
- TESL: Teaching of English as a second language
- TESOL: Teaching of English to speakers of other languages
- UK: United Kingdom
- US or USA: United States or United States of America
- UTN: Universidad Técnica del Norte
- XML: Extensible Markup Language

Appendix B: Survey & Supporting Documents

Attachment A: Phone script for contacting professors in whose classes survey will be collected (English & Spanish)

Hi, my name is James Williamson. I speak English *y Español también* (and also Spanish). I am calling to locate opportunities to survey students enrolled in English language classes at the universities in Ecuador. May I explain more about this research opportunity?

The survey I speak of is designed to discover why students choose to study English. To put it more exactly, the survey asks what benefits students hope to obtain from their studies of English. My brother, Daniel Williamson, wishes to learn the students' answers to this question as part of a research project required for his Master of Arts degree at Eastern Washington University in the U.S.A. The survey does not ask for students' names, as it is designed to be completely anonymous and the responses to it will only be used for research purposes. We both plan to be in Ecuador between March 22nd and March 27th to work on this research. As I understand it, you are an English instructor at one of Ecuador's universities, is that correct?

What are your thoughts about what I have explained so far?

Before conducting the survey, we would assure students that their participation in the survey is their choice to make. There would be no obligation to participate, and they should feel no need to provide information that they prefer not to. We would also ask participants to not include the names of any persons anywhere on the survey sheet so that we could guarantee anonymity. May we arrange to administer the survey?

May I send you a follow-up email with the survey and the survey instructions attached?

May I verify your contact information, including your email address?

May I call you again after you have had an opportunity to read through the survey and the instructions that go with it?

When is the best time to call to reconfirm our arrangements?

May I ask what your class schedule is like? On which days at which times do you teach English at the university? How many students are in each class? Will any of those classes be in session between March 23rd and March 27th?

If, at all possible, we would like to be on hand to administer the survey, ourselves, if we can schedule a visit to your class(es) while we are in Ecuador. If that is not possible, we would be willing to provide surveys with administration instructions in advance, allow you to invite the students to participate if they wish, allow you to read the pre-survey instructions, and allow you to distribute the surveys and collect the completed ones. We could then pick them up from you

<u>during our</u> stay in Ecuador. Another possibility would be to drop off surveys while we are in Ecuador, allow you to administer the survey in the same manner as just described, and then make arrangements for them to be delivered to Daniel Williamson in the United States. Daniel is selffunding this research, so he would be the one to make any necessary arrangements with to cover any incidental expenses related to this research. What final thoughts, concerns, or questions do you have concerning this survey?

Thank you so very much. Daniel would be happy to share his report of the results, if they would be of interest to you. I look forward to communicating with you again.

**Administrative note: James Williamson is a younger brother of Daniel Williamson. He is facilitating Daniel's research as a cultural broker and interpreter. Daniel has asked James to make these initial contacts on his behalf, and James has accepted the assignment. James will use this English script during the initial contact, but he is quite fluent in Spanish, and can easily switch to Spanish if he is requested to do so. Daniel can read Spanish and give approximate interpretations in English, but his Spanish skills are very rudimentary in all other respects.

Attachment B: Follow up email sent to professors who have agreed by phone to participate (English)

My name is Daniel Williamson and I am conducting a study on learning English as a foreign language as part of my masters thesis at Eastern Washington University. I am hoping that you will grant permission for a brief survey to be conducted among students currently enrolled in English classes at your college or university in Ecuador. Please know that participation in this study is completely voluntary and that the students' responses are anonymous as they do not require students to disclose any identifying information.

James Williamson, one of my brothers who is much more proficient in Spanish than I am, and who has, in the past, spent a great deal of time in Ecuador, might communicate with you on my behalf. We may seek to communicate with you by phone, by email, or in person. We will be visiting Ecuador between March 22nd and March 27th, 2013, in hopes of gathering this research. The number of the cell phone I will be bringing with me is 1-419-217-8079. My email is dwilliamson@ewu.edu. The number of my office phone in the United States is 1-509-359-6744.

The information that the survey seeks to discover is the students' motivations for studying English as a foreign language in terms of benefits they hope to gain from such study. The survey will also attempt to quantify educational attainments and educational goals of the respondents.

The options for administering the survey are these: 1) We may make an appointment to visit your university to distribute, administer, and collect the surveys ourselves during our visit in March; 2) We may furnish the survey for university English instructors to administer the survey in advance of our arrival, and we could collect them from you during our visit. We will want to know the date that surveys were administered, and we will want each participant's response on a separate sheet of paper in their own handwriting; or 3) We may distribute surveys for university English instructors to administer, and the responses may be returned to us by parcel post. Again, we will want to know the date that surveys were administered, and we will want each participant's response on a separate sheet of paper. Responses would need to be received no later than April 13th, 2013. I, Daniel Williamson, am self-funding this research, so arrangements to cover any incidental costs associated with distributing, administering, collecting, and returning surveys may be made with me. Option 1 is our preferred option.

If you have questions or concerns about the rights of participants in this study, please contact Ruth Galm, Human Protections Administrator at Eastern Washington University at 1-509-359-7971 or rgalm@mail.ewu.

Daniel Williamson Master of Arts candidate Eastern Washington University Department of English Cheney, WA 99004 USA Attachment C: Follow up email sent to professors who have agreed by phone to participate (Spanish)

Mi nombre es Daniel Williamson y estoy llevando a cabo un estudio sobre el aprendizaje del inglés como lengua extranjera de me tesis maestría en la Universidad Oriental de Washington (Eastern Washington University). Espero que otorgará el permiso para una breve encuesta a realizarse entre los estudiantes actualmente matriculados en clases de inglés en su colegio o Universidad en Ecuador. Participación en este estudio es totalmente voluntaria y que las respuestas de los alumnos son anónimas, ya que no requieren estudiantes a revelar cualquier información de identificación.

James Williamson, uno de mis hermanos que es mucho más competente en español que soy yo, y que, en el pasado, lleva mucho tiempo en Ecuador, podría comunicarse con usted en mi lugar. Podriamos comunicarnos con usted por teléfono, por correo electrónico, o en persona. Visitaremos al Ecuador entre el 22 de marzo y 27 de marzo de 2013, con la esperanza de cumplir esta investigación. El número del teléfono celular que traerá conmigo es 1-419-217-8079. Mi correo es <u>dwilliamson@ewu.edu</u>. El número de mi teléfono de oficina en los Estados Unidos es 1-509-359-6744.

La información que la encuesta busca descubrir es las motivaciones de los estudiantes para el estudio de inglés como lengua extranjera en términos de beneficios que esperan obtener de dicho estudio. La encuesta también tratará de cuantificar los logros educativos y objetivos educativos de los encuestados.

Las opciones para la administración de la encuesta son: 1) podemos hacer una cita para visitar su Universidad para distribuir, administrar y recoger las encuestas nosotros mismos durante nuestra visita en marzo; 2) Nos podemos equipar la encuesta de la Universidad inglesa instructores para administrar la encuesta antes de nuestra llegada, y que podríamos obtenemos de usted durante nuestra visita. Queremos saber la fecha en que se administraron las encuestas, y querremos respuesta de cada participante en una hoja separada de papel en su propia escritura; o 3) podemos distribuir encuestas para profesores de inglés Universidad administrar, y las respuestas pueden ser devueltos a nosotros por correo. Una vez más, queremos saber la fecha en que se administraron encuestas, y querremos respuesta de cada participante en una hoja de papel cada uno. Las respuestas deberían recibirse a más tardar el 13 de abril de 2013. Soy yo, Daniel Williamson, financiación propia esta investigación, para arreglos para cubrir posibles gastos incidentales asociados con la distribución, administración, recoger y devolver las encuestas puede hacer conmigo. Preferimos que nos adelanten las encuestas para retirar durante nuestra visita en marzo.

Si tiene preguntas o inquietudes acerca de los derechos de los participantes en este estudio, por favor póngase en contacto con Ruth Galm, administrador de protecciones humana en la Universidad de Washington oriental 1-509-359-7971 o rgalm@mail.ewu.

Daniel Williamson Candidato de maestría Eastern Washington University English Department Cheney, WA 99004 ESTADOS UNIDOS

Attachment D: Script for person collecting the surveys to read before distributing the surveys (English & Spanish)

This message will be read in English and then in Spanish. Please do not make any marks on these pages until this message is finished.

Este mensaje se leerá en inglés y en español. Por favor, no haga ninguna marca en estas páginas hasta que termine este mensaje.

A short survey is being distributed that you are invited to complete if you wish. Participation is entirely voluntary. You are not required to complete any of it. If you choose to participate, you may respond in English or in Spanish. If there is information requested that you do not wish to provide, you may withhold it. Information is requested on both the front and back sides of the paper. This research will help Daniel Williamson, a student at Eastern Washington University in the United States of America, complete the requirements of his Master of Arts degree. If you choose to respond to this survey, you must do so anonymously. Please do not write any names anywhere on the survey sheet. If any identifying information, such as any person's name, whether your own or someone else's, appears on the survey, it cannot be included in the research and will have to be discarded. Each survey should have no more than one person marking on it. Each person volunteering to participate may only complete the survey once. It should only take a few minutes to fill out the survey. The information gathered is for research purposes only. It will be used for no other purpose.

Se distribuye un breve cuestionario que le invitamos a completar si lo desea. La participación es completamente voluntaria. No es necesario responder. Si usted decide participar, puede responder en inglés o en español. Si hay información solicitada que usted no desea proporcionar, usted puede no contestarla. Se solicita información sobre los lados frontales y posterior del papel. Esta investigación será ayudar a Daniel Williamson, un estudiante en la Universidad Oriental de Washington (Eastern Washington University) en los Estados Unidos de América, completar los requisitos de su grado de maestría. Si decide responder a esta encuesta, debe hacerlo anónimamente. No escriba nigún nombre en cualquier lugar en la hoja de la encuesta. Si cualquier información de identificación, como el nombre de cualquier persona, su propia o de otra persona, aparece en la encuesta debe tener escritos de una sola persona en aquello. Cada persona que participe debe completar una sola encuesta. Sólo debería tomar unos minutos para completar la encuesta. La información recogida es sólo con fines de investigación académica. No se utilizará para ningún otro propósito.

Before beginning, are there any questions about what you are being invited to do? *Antes de empezar, ¿hay alguna pregunta sobre lo que se invita a hacer*?

If there are no questions, you may begin marking your responses on the survey. Si no existen preguntas, puede empezar escribiendo sus respuestas en la encuesta.

When finished, please return the surveys. Thank you for your patience and participation. *Cuando haya terminado, por favor devuelva las encuestas. Gracias por su paciencia y participación.*

Attachment E: The Survey (English & Spanish)

My name is Daniel Williamson and I am conducting a study on learning English as a foreign language as part of my masters thesis at Eastern Washington University. I am hoping that you will take just a few minutes to answer the questions below. Please know that your participation in this study is completely voluntary and that your responses are anonymous as they do not require you to disclose any identifying information. *Mi nombre es Daniel Williamson y estoy llevando a cabo un estudio sobre el aprendizaje del inglés como lengua extranjera como parte de mi tesis de maestría en la Universidad Oriental de Washington (Eastern Washington University). Espero que tome unos minutos para responder a las preguntas a continuación. Por favor sepa que su participación en este estudio es totalmente voluntaria y que sus respuestas son anónimas, ya que no requieren a divulgar cualquier información de identificación.*

If you have any questions about the study, please contact Daniel Williamson by phone at 1-509-359-6744 or by email at <u>dwilliamson@ewu.edu</u>. If you have questions or concerns about your rights as a participant in this study, please contact Ruth Galm, Human Protections Administrator at 1-509-359-7971 or <u>rgalm@mail.ewu</u>. Si usted tiene alguna pregunta acerca del estudio, póngase en contacto con Daniel Williamson por teléfono al 1-509-359-6744 o por correo electrónico a <u>dwilliamson@ewu.edu</u>. Si usted tiene preguntas o inquietudes acerca de sus derechos como participante en este estudio, por favor póngase en contacto con Ruth Galm, administrador de protección humana en 1-509-359-7971 o rgalm@mail.ewu.

Please do not put your name on this questionnaire. Por favor no ponga su nombre en este cuestionario.

If there are questions you do not want to answer, feel free to skip those. You may answer in English or Spanish. Si hay preguntas que no desea responder, no dude en pasarlos. Se puede contestar en inglés o español.

Thank you. Gracias.

Daniel Williamson Master of Arts candidate Candidato de maestría Eastern Washington University Department of English Cheney, WA 99004 USA LOS ESTADOS UNIDOS DE AMERICA

What is your gender? ¿Es usted masculino o femenino?

How many years have you studied English? ¿Cuántos años has estudiado Inglés?

What educational certificates, diplomas, or degrees have you already earned? ¿Qué educación certificados, diplomas o grados han ya logrado?

Are you currently working toward a university degree? ¿Actualmente estás trabajando hacia un título universitario?

What is the highest level of education you plan to obtain? ¿Cuál es el nivel más alto de educación va a obtener?

What is the name of the university where you are enrolled? ¿Cuál es el nombre de la Universidad donde está inscrito?

Attachment E: The Survey (English & Spanish)

How will you benefit from studying English? Please write a paragraph explaining why you, personally, are studying English. Please include as many reasons as you can think of that influenced you to study English. ¿Cómo podrán aprovechar estudiando inglés? Por favor escribe un párrafo explicando por qué usted, personalmente, estudia inglés. Por favor incluya todas las razones que le haya influenciado estudiar a Inglés.

Appendix C: Vita

Daniel Jack Williamson <u>williamsonworks@yahoo.com</u>

31506 62nd Ave Ct S, Roy, WA 98580, USA (419) 217-8079

EDUCATION

- MA—English: TESL, Eastern Washington University (expected March 2018) Graduate Service Appointment—teaching assistantship
- **BA—International Studies,** The Ohio State University 1996 National Merit Scholar

EXPERIENCE-COLLEGE INSTRUCTION

Instructor of Record

English 101—College Composition: Exposition and Argumentation Fall 2011-Winter 2013 English 112—Composition for Multi-Lingual Students Spring 2013

Teaching Assistant Intern

English 112—Composition for Multi-Lingual Students Summer 2012

Writers' Center Intern Winter 2013

EXPERIENCE—PreK-12 INSTRUCTION

Substitute Teacher Lorain City Schools, Lorain, OH, USA 2004-2007 **EFL** Teacher SBSI Kids, Cheongju, South Korea Cheongju Language Institute, Cheongju, South Korea 2005-2006

CONFERENCES

15th Annual Student Research and Creative Works Symposium, **Eastern Washington University**

Presenter: "Raison d'Être: What English Instruction Should Universities Provide to an Ever-diversifying Student Body?" 2012

16th Annual Student Research and Creative Works Symposium, **Eastern Washington University**

Attendee and Staff Volunteer 2013

TESOL 2014, Portland, OR, USA

Attendee

17th Annual Student Research and Creative Works Symposium, **Eastern Washington University**

Presenter: "Information Development as a Model for Systemic EFL Instructional Reforms in Ecuador" 2014

2016 WAESOL Conference, Mukogawa Fort Wright Institute, Spokane, WA, USA Attendee

2018 Spokane Regional ESL Conference Mukogawa Fort Wright Institute, Spokane, WA, USA Attendee

PROFESSIONAL AFFILIATIONS

TESOL International Current Member

National Council of Teachers of English **Current Member**