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University Content-Area Faculty Experiences Teaching English Language Learners:

A Multiple-Case Study

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the Degree of Doctor of Philosophy in

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Barry University

by

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* * * * *

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Teaching of English to Speakers of Other Languages

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LANGUAGE LEARNERS:

A MULTIPLE-CASE STUDY

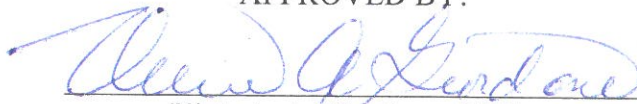
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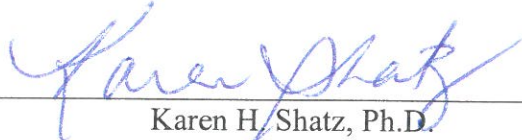
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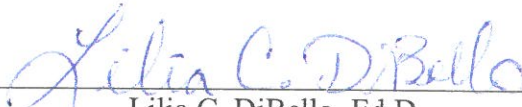
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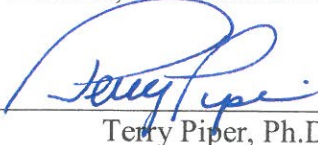
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ABSTRACT

University Content-Area Faculty Experiences Teaching English Language Learners:

A Multiple-Case Study

In recent years the number of undergraduate English language learners (ELLs) in university settings in the United States has increased (American Community Survey Reports, 2012; National Council of Teachers of English (NCTE), 2008). Once accepted into postsecondary institutions, ELLs are often placed into first-year general education courses taught by the content-area faculty who typically have no training or experience with – or understanding of – ELLs' needs and abilities (Beach & Friedrich, 2006; De Jong & Harper, 2008; Lucas, Villegas, & Freedson-Gonzalez, 2008). Research literature related to the experiences of the full-time content-area faculty teaching first-year general education courses in university classrooms where ELLs are enrolled is limited. The research question guiding this multiple-case study (Yin, 2014) is: How do full-time university content-area faculty members describe their experiences of teaching first-year general education courses in which ELLs are enrolled? Five full-time content-area faculty teaching first-year general education courses in biology, communications, psychology, and theology at a university located in South Florida were participants in this study. The analysis of multiple sources of data such as participants' responses to a brief e-mail questionnaire, vignettes reflecting observations of participants' classrooms during instructional sessions, and two rounds of one-to-one digitally recorded interviews with participants reveal that: (a) the six major cross-case themes and their corresponding sub-themes that emerged in this study support the overarching theme of passion, devotion, and commitment of participants to teaching their disciplines to all students; (b) participants do not view their experiences of teaching content-area disciplines to ELLs in general education university classrooms divorced

from their experiences of teaching the language of their disciplines to all students regardless of their language status; (c) participants perceive all students enrolled in their general education courses as non-native speakers of languages of their respective disciplines such as non-native speakers of biology, non-native speakers of communications, non-native speakers of psychology, and non-native speakers of theology; (d) in spite of a lack of formal training in pedagogy and curriculum, participants possess pedagogical and curricular knowledge that in combination with their passion for the subject matter, commitment, and devotion to teach the subject matter enables them to connect the content of their disciplines with all students; and (e) participants utilize an array of multimodal scaffolding means to teach the language of their disciplines to all students.

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During my dissertation journey, many people supported me and contributed to my success. I would have never been able to reach my goal without them. First, I would like to acknowledge and express my sincere gratitude to the participants of my study. These passionate teachers and scholars are an integral part of my dissertation. They generously shared their knowledge, expertise, and time with me, and I am forever grateful for their help.

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I wish I would have been talented enough to write a poem about Dr. Victoria Giordano, my dear Dissertation Committee Chair, my teacher, my mentor, my counselor, my boss, my

colleague, and the person whom I truly consider a part of my family. Her unconditional support during my dissertation process cannot be quantified and/or measured. She provided guidance on each and every detail of my dissertation study, and she spent countless hours working with me both at work and at her house making sure that the final product was perfect. Her passion about teaching, her expertise and knowledge in the areas of curriculum and instruction, general education, and her interest in my research motivated me and inspired me to work better and harder to accomplish my goal. Dr. Giordano was the major factor in my transformation as a scholar, as a professional, and as a person. I feel so honored, blessed, and lucky to have her in my life, and I am so grateful to her.

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Finally, this journey would have never been completed without love, support, and encouragement from my beloved husband Igor and my dear daughter Katie. My parents, Valentina and Piotr, also played a major part in my success by instilling in me the love for learning.

DEDICATION

I dedicate my dissertation study to my husband Igor, my daughter Katie, and my parents, Valentina and Piotr. I love you all very much!

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CHAPTER I
THE PROBLEM
INTRODUCTION

According to the National Center for Educational Statistics (2007), the number of students, both native English speakers (NES) and ELLs, in postsecondary institutions in the United States quadrupled in the last few decades – from 3.6 million to 14.8 million. While it is impossible to provide an exact and accurate number of ELLs enrolled in institutions of higher education in the United States, colleges and universities have seen an increase in the number of these students (Todd, Stinson, & Sivakumaran, 2011). For example, although Pandya, Batalova, and McHugh (2011) did not specify exactly how many non-native English speakers (NNES) were included in their statistics, the authors stated that out of a total number of 6.5 million enrolled undergraduate students, 24 percent came from an immigrant background.

Research literature suggests that undergraduate ELLs enter U.S. colleges and universities lacking adequate exposure to academic language and foundational understanding of English; they must acquire the language at the same time they are learning the subject matter (De Jong & Harper, 2008). Without strong support systems in place, ELLs will not achieve success with universities' academic standards. Therefore, issues related to the education of undergraduate ELLs in higher education settings have become increasingly important to postsecondary institutions whose mission is to educate and prepare all their students for life beyond college (Mbuva, 2011).

Background of the Problem

Upon enrollment in postsecondary institutions, ELLs generally take first-year general education courses such as science, writing, history, psychology, mathematics, and others in the

same classrooms with NES (Ferris, 2009). As general education requirements comprise approximately 30 percent of the undergraduate curriculum, these discipline-specific courses denote a very important piece of the students' academic experiences (Brint, Proctor, Murphy, Turk-Bicakci, & Hanneman, 2009; Conley, 2008). In order to succeed academically in these classes, ELLs must develop adequate proficiency with academic language to be able to master complex subject matter (Cummins, 1984; Valdes, 2004). Most importantly, university content-area faculty, teaching first-year general education courses, must possess specific expertise and skills in order to assist ELLs in mastering discipline-specific content knowledge while acquiring proficiency in academic language (Ferris, 2009).

In higher education settings in the United States, there exist no state-mandated requirements as to what kind of knowledge and skills university content-area faculty teaching general education courses should possess in order to deliver the subject matter of their disciplines to ELLs in university classrooms. Accreditation bodies such as the Southern Association of Colleges and Schools (SACS), a regional body for the accreditation of degree-granting higher education institutions in the United States, requires faculty teaching general education courses at the undergraduate level to hold a doctorate or master's degree in the discipline or a master's degree with a concentration in the discipline (SACS, 2006). Clearly, the primary emphasis of this requirement is on faculty's knowledge of the subject matter only, not on pedagogy. However, a large body of research on *pedagogical content knowledge*, a term introduced by Shulman (1986), indicates that high-quality teachers should possess specific pedagogical skills enabling them to represent and formulate the subject matter in a way that makes it comprehensible to diverse groups of students (Ball, Thames, & Phelps, 2008; Banks, Leach, & Moon, 2005; Pawan, 2008; Van Driel & Berry, 2010).

Origin of Interest in the Topic

As a university full-time faculty member and a supervisor of the professional tutors in the Writing and the Reading Centers, the researcher's interest in the topic developed while working with colleagues teaching different first-year content-area courses in which large numbers of linguistically diverse learners are typically enrolled and working side-by-side with professional tutors both in the Writing and the Reading Centers that serve a large population of ELLs. Having conversations with these professionals and listening to their stories, the researcher heard faculty's concerns and problems experienced while teaching content-area courses to ELLs in first-year general education discipline-specific courses.

Through communication with faculty members, the Writing and the Reading Centers' tutors, and exchanges of opinions on the topic, the researcher realized the importance of understanding content-area university faculty's experiences when teaching first-year general education courses in university classrooms in which ELLs are enrolled. The researcher felt the need to learn from the content-area instructors enabling them to share their experiences teaching first-year general education courses to undergraduate ELLs enrolled in a university setting.

Upon reviewing literature on the topic of content-area faculty experiences teaching undergraduate ELLs in university classrooms and uncovering a scarcity of the research literature on this topic, the researcher also discovered a strong internal drive to contribute to the body of knowledge in this area. Other important influences such as the researcher's own experiences of being an ELL herself; her knowledge about theories of second language acquisition (SLA), teaching, and learning; and her role as the English composition teacher and a Coordinator of the Writing and Reading Centers in a higher education setting also contributed to her desire to conduct a study on this topic. As a NNES who knows firsthand about challenges ELLs face

when acquiring academic language at the university level, the researcher was particularly interested to learn how content-area faculty members address the needs of diverse NNES student audiences in general education classrooms.

Statement of Problem

In recent decades the demographic makeup of the United States has been changing at a rapid pace. The foreign-born population in the United States is approximately 34 million or 12 percent of the entire population (Oropeza, Varghese, & Kanno, 2010). In past years the number of students entering American colleges and universities who are linguistically diverse has dramatically increased (Pandya, Batalova, & McHugh, 2011; Roberge, Siegal, & Harklau, 2010). In a 2006 survey of undergraduate students at the University of California, it was found that 35 percent of surveyed students reported that English was not their first language. These students represent different ELL audiences. The undergraduate ELL population enrolled in U.S. postsecondary institutions is comprised of international students, foreign-born immigrant students, and second-generation immigrant students (Calderon, Slavin, & Sanchez, 2011).

Even though these students gained entry to university by having met or exceeded minimum admission requirements, they are often believed to not be prepared to meet the demands and handle the rigor of academic coursework due to the lack of adequate language proficiency and exposure to academic language (Callahan, Wilkinson, & Miller, 2010). The problem is further exacerbated by the fact that each discipline possesses its own academic discourse or genre and established norms of practice for producing and communicating knowledge (Moje, 2008). For ELLs, part of learning the content of discipline-specific courses implies developing adequate English language proficiency while at the same time attempting “to understand the norms of practice for producing and communicating knowledge in the

disciplines” (Moje, 2008, p. 100). In order to acquire the content of the first-year general education courses, ELLs must read and write as historians, mathematicians, and scientists do in their disciplines (Schleppegrell & Achugar, 2003) because to learn the content of a discipline means to learn the language of that discipline (Fang, 2004).

This poses a complex problem of educational integrity (Johnson, 2008). Many researchers believe that if universities continue accepting such students into their programs, they have the responsibility to ensure that the necessary support systems are in place to assist ELLs to complete their studies successfully (Kennelly, Maldoni, & Davies, 2010; Poyrazli & Grahame, 2007). One such critically important support system that directly impacts ELLs’ academic success at the university level is faculty members teaching first-year general education courses in university classrooms (Bensimon, 2007; Devlin & Samarawickrema, 2010).

Before enrollment in the university, ELLs have to meet entrance requirements through various admission processes which may include obtaining minimum admission scores on standardized tests such as the Scholastic Aptitude Test (SAT), the American College Testing (ACT), Test of English as a Foreign Language (TOEFL) or some internal placement tests. Once the admission requirements have been met, ELLs are eligible to enroll in university general education classes, and it is assumed that they possess requisite skills to be successful in these classes. When admitted into the university, ELLs are enrolled into discipline-specific courses during their first year of studies. These courses are usually taught by content-area experts who are well-equipped to teach content-area courses but underprepared to work with ELLs (Ferris, 2009) as they do not possess any specialized training in pedagogy or in the area of second language (L2) teaching and learning (Gibbs & Coffey, 2004; Pfund, Miller, Brenner, Bruns, & Change, 2009; Postareff, Lindblom-Ylance, & Nevgi, 2007; Postareff, Lindblom-Ylance, &

Nevgi, 2008; Stes, Coertjens, & Van Petegem, 2010; Winkle, 2014). Due to such a lack of knowledge in pedagogy and L2 teaching and learning, content-area faculty may reject the idea that discipline-specific discourse must be taught to ELLs explicitly to facilitate their acquisition of content (Moje, 2008). As a result, content-area university faculty may experience challenges in meeting the academic needs of the diverse ELL population. The needs of undergraduate ELLs include but are not limited to a lack of adequate proficiency in English and a lack of familiarity with academic language. Therefore, acquisition of discipline-specific content knowledge presents a daunting task for undergraduate ELLs (Ferris, 2009).

In the past decade there has been a growing body of research examining the preparation of content-area educators to teach linguistically diverse students in mainstream classrooms in K-12 settings (Billings, Martin-Beltran, & Hernandez, 2010; Lucas & Villegas, 2010; Merino & Hammond, 2001; Winkle, 2014). There is also a handful of studies that have specifically inquired into the preparation of content-area faculty to meet the needs of ELL students in higher education institutions (Ferris, 2009; Ferris, Brown, Liu, & Stine, 2011). What is less known, understood, or researched, however, are the experiences of the full-time content-area faculty teaching general education courses in university classrooms, the challenges they face in such settings, and support systems they believe they need in order to meet the needs of a growing, highly diverse ELL population in their university classrooms.

Exploring the experiences, views, and perceived needs of full-time content-area university faculty teaching first-year general education courses in which ELLs are enrolled is pivotal to this study. Understanding these faculty's experiences can contribute to the existing limited body of research on university faculty's preparation to meet the needs of the diverse ELL population in higher education settings; inform the existing curriculum of the first-year general

education university courses regarding possible modifications; and illuminate the role of pedagogical content knowledge, subject matter knowledge, and curricular knowledge in addressing academic needs of ELLs at the university level. This study may also help to provide suggestions to first-year content-area faculty members regarding necessary support systems that may enable them to better address the academic needs of a growing ELL population in higher education settings.

Statement of Purpose

The purpose of this qualitative multiple-case study (Merriam, 2009; Stake, 1995; Yin, 2014) was to explore, understand, and describe the experiences of five full-time content-area faculty members when teaching first-year general education courses in which ELLs were enrolled at the university located in South Florida. Specifically, this study sought to understand the scaffolding strategies the content-area faculty described they used when connecting the content of their disciplines with ELLs and to illuminate the perceptions of the content-area faculty regarding the role of content knowledge, pedagogy, and curriculum in teaching general education courses in which ELLs were enrolled. The qualitative data were collected through participants' responses to a brief e-mail questionnaire sent out during the recruitment process, vignettes reflecting observations of participants' classrooms during instructional sessions, and two rounds of one-to-one digitally recorded interviews with participants.

Research Questions

Guiding the proposed study was the overarching question:

How do full-time content-area faculty members describe their experiences when teaching first-year general education courses in university classrooms in which ELLs are enrolled?

The following sub-questions related to teaching ELLs were also posed to expand the research question:

1. What scaffolding means do full-time content-area faculty members utilize to mediate discipline-specific content of the general education courses to ELLs in university classrooms?
2. What are full-time content-area faculty's perceptions regarding the role subject matter knowledge, pedagogical content knowledge, and curricular knowledge play in their instructional practices when teaching undergraduate ELLs enrolled in first-year general education courses?

Theoretical Framework

The theoretical framework that guided this multiple-case study was grounded in Vygotsky's (1978) sociocultural theory (SCT) perspective and Shulman's (1986) framework of the pedagogical knowledge base of teaching. One of the most important postulates of SCT is that individuals do not have a direct relationship with the physical world. This relationship is mediated through various means such as tools or material objects – books, computers, and others – and sign systems or abstract representations – music, numbers, culture, and cultural artifacts. Language, from the SCT perspective, is the primary form of mediation as it facilitates human thought. SCT, with its ontological and epistemological position on understanding the phenomenon in its context, fits well with the case study inquiry.

The concept of mediation draws attention to the crucial role of the mediator or a more capable other, an expert, in determining the course of development or learning for the learner. SCT posits that learners are typically able to acquire more in a problem-solving situation when their learning process is facilitated by an expert or a teacher (Macdonald, 2006). When ELLs

acquire complex content of the discipline-specific first-year general education courses, the mediator or the teacher must create a so-called adequate situation definition in which this discipline-specific content will be internalized by learners (Macdonald, 2006). In order to develop such a successful teaching-learning situation, a teacher should create a means by which learners can participate in the activity of acquiring content of the discipline-specific courses; they take into consideration their previous background knowledge and their existing developmental potential including current levels of academic language proficiency and competency (Daniels, 2010). For example, a teacher must create a social setting in which acquisition of content such as comprehension of a history textbook, is taking place as a collaborative act (Daniels, 2010). This social setting is created to facilitate the gradual mastery of academic content of discipline-specific courses simultaneously with language development without an expert support (Daniels, 2010).

In addition, the present multiple-case study also draws on Shulman's (1986) perspective of teachers' knowledge base, namely his theoretical constructs of *subject matter knowledge*, *pedagogical content knowledge*, and *curricular knowledge*. Shulman described subject matter knowledge as the ability of teachers to identify topics that are central to their specific disciplines and teach students why they are worth knowing. Pedagogical content knowledge, according to Shulman, implies teachers possess a variety of strategies to teach the content of their disciplines to students and understand students' misconceptions about the discipline. Shulman described curricular knowledge as teachers' awareness of instructional materials available to teach disciplines in their classes. Teachers must also be familiar with instructional materials utilized in other subjects students are studying at the same time.

Curricular knowledge also brings about teachers' ability to relate the content of topics covered in their disciplines to topics being studied simultaneously in other classes (Shulman, 1986).

The researcher utilized the concept of mediation from SCT (Vygotsky, 1978) and the three above-mentioned constructs derived from Shulman's (1986) theoretical framework to analyze the research data in order to answer the research questions posed in the present case study as they related to faculty's self-described instructional practices when teaching ELLs in first-year general education university classrooms. *Figure 1* signifies Vygotsky's idea of mediation and is represented in a form of a mediational triangle. The *subject* in this triangle symbolizes ELLs enrolled in general education courses at the university level, and the *object* denotes the goal, i.e. mastery of the content of the discipline-specific courses by ELLs. In order to acquire the content of the discipline-specific courses, ELLs need an *expert* – the content-area faculty – teaching general education classes. Content-area faculty utilize their subject matter knowledge, pedagogical content knowledge, and curricular knowledge to mediate or connect the content of general education courses with ELLs via various scaffolding means.

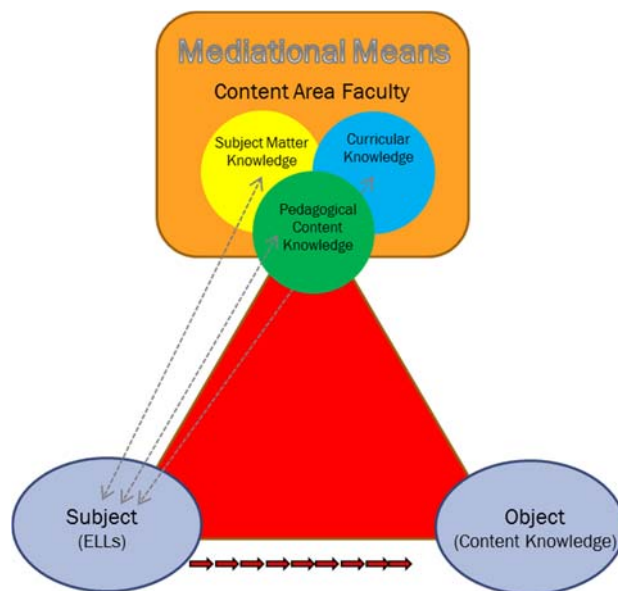


Figure 1. Vygotsky's Sociocultural Theory (1978) and Shulman's (1986) Teachers' Knowledge Base Framework

Definition of Terms

The following key terms that illustrate the phenomenon under investigation and that were used in the study are defined below.

Academic language or academic discourse/academic literacy. This is the term that refers to “forms of oral and written language and communication-genres, registers, graphics, linguistic structures, interactional patterns that are privileged, expected, cultivated, and conventionalized, and, therefore, usually evaluated by instructors, institutions, and others in educational and professional contexts” (Duff, 2010, p. 175).

English Language Learners (ELLs). In the context of the present study, these are students “who are in the process of learning English as a second/additional language” (Hamayan & Freeman, 2012, p. 248) or who do not consider English as their first/primary/native language and/or “who are still developing proficiency in academic language” (Carnegie Corporation of New York, 2009, para. 4). In the present study, students self-identified themselves as ELLs by responding to a question asking whether or not they considered English as their first (L1) or native language. This question served as further refinement of the definition of ELLs utilized in this dissertation. The term ELLs used in the present study refers to both international and domestic students.

Mainstreaming. Mainstreaming in the context of the present study refers to “immersing ELLs in all English-curricula without any specialized support” (Wang, Many, & Krumenaker, 2008, p. 66).

Significance of the Study

Through the analysis of data, it was revealed that participants in the present study treated all students enrolled in their general education courses as non-native speakers of the language of

their disciplines. The findings of the present study provided evidence that, in spite of a lack of formal training in pedagogy and curriculum, full-time content area faculty teaching first-year general education courses at this university possessed pedagogical and curricular knowledge that in combination with their passion for the subject matter, commitment, and devotion to teach the subject matter enabled faculty to connect the content of their disciplines with all students.

Participants understood the challenges all students faced when acquiring the content of discipline-specific courses and addressed these challenges by employing a variety of multimodal scaffolding means.

In spite of its limitations, the present study yields opportunities for contributions to the field of curriculum and instruction and the area of ELL teaching and learning.

In regards to the area of curriculum and instruction, the present study can draw the attention of university leadership to restructuring first-year general education curricula so that they meet students' diverse learning needs and engage ELLs in an integrated curriculum that emphasizes the connection between content and language development. The present study can also initiate the development and implementation of professional development training opportunities for content-area faculty teaching ELLs in first-year general education courses and/or for any university faculty members who are interested in learning about methods and strategies of teaching discipline-specific discourses to ELLs.

In summary, understanding full-time content-area faculty's experiences teaching ELLs in the first-year general education courses can contribute additional information to the existing body of research on: (a) the phenomenon of teaching ELLs in higher education settings in general, (b) experiences of the full-time content-area faculty teaching ELLs in university classrooms; (c) what support system can be offered to assist content-area faculty in teaching

first-year general education courses to the undergraduate ELLs; and (d) what curricular changes may take place in order to provide the best education to undergraduate ELLs in university classrooms.

Summary

In recent years the number of undergraduate ELLs enrolled in first-year general education classes in U.S. postsecondary institutions has increased. University content-area faculty teaching discipline-specific courses to ELLs in university classrooms lack necessary preparation and/or training in pedagogy and curriculum. Hence, they may not be adequately prepared to address challenges ELLs face when acquiring discipline-specific content of general education courses. Research literature exploring experiences of content-area faculty teaching first-year discipline-specific courses to ELLs in university classrooms is limited. Studies exploring experiences of university content-area experts teaching discipline-specific courses to ELLs in university classrooms may contribute to the existing body of research on: (a) the phenomenon of teaching ELLs in higher education settings in general, and (b) support systems these faculty members believe they need to meet diverse linguistic demands of first-year undergraduate ELLs enrolled in general education university classrooms.

Conclusion

Chapter I provided a description of the background and statement of the problem, statement of purpose, research questions, theoretical framework, definitions of terms, significance of the study, and its brief summary. Chapter II presents an overview of the literature related to the phenomenon under investigation.

CHAPTER II

REVIEW OF THE LITERATURE

This chapter provides a review of the literature related to the experiences of the content-area faculty teaching ELLs in general education university classrooms. The purpose of this review is to offer a global picture of all aspects of these experiences. The first part of the literature review covers a brief history of ELLs in higher education settings; a description of the characteristics of ELLs in higher education; an overview of perspectives on SLA; a description of Vygotsky's (1978) SCT and its view on SLA; a distinction between language proficiency and competence; and linguistic and socio-cultural demands of general education content-area classrooms.

Next, the focus of the literature review narrows and provides a synopsis of studies regarding teaching and learning of ELLs in the content-area classrooms, namely content-area teachers' perceptions and attitudes towards ELLs, and studies that show their construction of knowledge and related to pedagogical content knowledge. In both parts of the literature review, due to the dearth of research on this topic in regards to higher education settings, the researcher has included an overview of the relevant K-12 literature.

English Language Learners in Higher Education

In order to better understand specific characteristics of ELLs in higher education settings, one needs a clear definition of the term *ELLs*. ELLs can be defined as “those students who are not yet proficient in English and who require instructional support in order to fully access academic content in their classes” (Ballantyne, Sanderman, & Levy, 2008, p. 2). Another definition of ELLs describes them as individuals who are still developing their academic literacy in specific content areas (Colombo & Furbush, 2009). Some researchers argue, however, that

ELLs are very different in regards to their status, characteristics, educational backgrounds, and other factors and, therefore, they cannot be placed in one group (Snow, Griffin, & Burns, 2005).

It appears that to find a precise definition of this term is not an easy task.

There is very little agreement as to what the term *ELLs* means and what name/label describes ELLs more effectively (Garcia & Kleifgen, 2010). At different points in time, in addition to the label *ELLs*, students who are learning English as a second/additional language have been referred to in the literature as *English learners* (ELs), *limited English proficient* (LEP), *culturally and linguistically diverse* (CLD), students with *English language communication barriers language* (ELCB), *English as a second language* (ESL), *language minority* (LM), and *bilinguals* (Garcia & Kleifgen, 2010). Some of the above-mentioned labels, such as *limited English proficient*, have somewhat negative connotations as they focus on students' limitations, but not strengths (Baker, 2007).

The term *ELLs* appears to be the most inclusive as it focuses on the fact that students are in the process of learning the language even though some critics argue that it emphasizes learning of English only. Garcia and Kleifgen (2010) claim that the term *emergent bilinguals* is more suitable to describe these students as it emphasizes their potential to become bilinguals. However, in the context of the present study, the researcher used the term *ELLs* to refer to “students who were in the process of learning English as a second/additional language” (Hamayan & Freeman, 2012, p. 248) and “who were still developing proficiency in academic language” (Carnegie Corporation of New York, 2009, para. 4).

History of ELLs in Higher Education Settings

Undergraduate international students in U.S. higher education. The history of ELLs in higher education is relatively brief, and most of the attention during this history has been

primarily paid to international students (Matsuda, 2006; Matsuda & Matsuda, 2009). The number of undergraduate international students in colleges and universities in the United States has increased rapidly since the end of the World War II, from 6,570 in 1940 to more than half a million in 2007 (Matsuda, 2006 ; Matsuda, Cox, Jordan, & Ortmeier-Hooper, 2006).

Before the 1970s, the majority of the ELL student population in U.S. postsecondary institutions consisted primarily of international students entering the country on student or exchange visas (Matsuda, 2003). One of the reasons for such a large number of international students in U.S. institutions of higher education in the 1970s was the fact that international students had to undergo a different university admission process than the immigrant ELLs (Matsuda, 2003). Unlike immigrant ELLs who were expected to meet the same university admission criteria as other U.S. students who were NES, international students had to provide evidence that they possessed adequate levels of English language proficiency (Matsuda, 2003). However, before English language proficiency tests such as TOEFL and the Michigan Test of English Language Proficiency (MTELP) were created in the 1960s, universities did not possess adequate tools to assess international students' English language proficiency prior to their arrival to the United States (Matsuda, 2003). Evidence of international students' English language proficiency was often provided by various government officials such as employees of consular offices and educators from the educational institutions students attended abroad (Matsuda, 2003).

Despite very strong competition from other English-speaking countries such as the UK, Canada, Singapore, and Australia, U.S. higher education institutions enroll more international students than any other country in the world (Institute of International Education, 2010). China, India, and South Korea are the top three countries that send students to obtain postsecondary degrees in U.S. institutions of higher education (Institute of International Education, 2010).

Together, students from these three countries comprise approximately 44 percent of the total number of international enrollments in U.S. higher education (Institute of International Education, 2010).

In order to gain entry to U.S. colleges and universities, international students must meet admission criteria which include obtaining qualifying scores on English proficiency exams such as the TOEFL and/or the International English Language Testing System (IELTS). The international student population is very diverse and possesses a broad range of skills in English (Garcia, Pujol-Ferran, & Reddy, 2013). Many international students studied English in their countries of origin, but their English has different characteristics from that of students educated in the U.S. These differences pose specific difficulties for international students in their mastery of the content of the discipline-specific courses (Garcia, Pujol-Ferran, & Reddy, 2013).

Immigrant ELLs in U.S. higher education. The overall college attendance of immigrant ELLs was much lower at the beginning of the last century than it is now, due in part to the university admission requirements at that time (Matsuda, 2003). Immigrant ELLs, unlike international students, had to meet the same admission criteria as other U.S. students, NES (Matsuda, 2003). However, the majority of the immigrant ELLs could not gain entry to the university because very few elementary and secondary schools were able to provide them with necessary linguistic support for their academic preparation (Matsuda, 2003). After some important changes to the United States Immigration Law (e.g. the Immigration Act of 1965) and to admissions policies at higher education institutions, U.S. colleges and universities began to admit more immigrant ELLs in the mid-1970s (Bosher & Rowekamp, 1998; Garcia, Pujol-Ferran, & Reddy, 2013; Harklau, Siegal, & Losey, 1999; McKay & Wong, 2000; Roberge, 2002;

Singhal, 2004). Many of these immigrant ELLs were comprised of U.S. citizens and permanent residents who did not speak English at home (Matsuda, 2003).

Today's immigrant students enrolled in colleges and universities in the United States are highly diverse in regards to their ethnicity, languages they speak, documentation status, socio-economic status, and academic preparation (Roberge, Siegal, & Harklau, 2010). While Asian students include the majority of the international students enrolled in U.S. colleges and universities, Latino students represent the majority of immigrant ELLs in U.S. higher education institutions (Garcia, Pujol-Ferran, & Reddy, 2013).

Despite their diversity, immigrant ELLs enrolled in postsecondary institutions in the United States face similar problems in meeting the challenging demands of academic coursework. The reason is that many immigrant ELLs are either children of immigrants or the ones who have arrived in the United States as school-age children and have gone to school in the United States, but who still need to develop adequate academic language proficiency in order to succeed academically in post-secondary institutions (Garcia, Pujol-Ferran, & Reddy, 2013). In order to help immigrant ELLs meet rigorous demands of the academic coursework, these students should be included in meaningful content learning, and their education should not “only focus on the remediation of English literacy skills,” but on teaching students discipline-specific discourses while at the same time improving their academic language proficiency (Garcia, Pujol-Ferran, & Reddy, 2013, p. 178).

Characteristics of ELLs in Higher Education Settings

According to Harklau, Siegal, and Losey (1999), a growing number of linguistically diverse students graduating from U.S. secondary schools and entering colleges and universities are educated in the United States or are U. S.- resident learners of English and international

students. Although the above-mentioned groups of ELLs in higher education settings in the United States share some similarities when it comes to their lack of familiarity with the academic language, they also possess some noticeable differences in linguistic, cultural, and educational backgrounds as well as differences in socio-economic status, learning styles, motivation, and self-esteem (Ferris, 2009).

Generation 1.5 students. In the literature on L2 learning, U. S.- resident learners of English are often labeled as *Generation 1.5* students (Roberge, 2002). *Generation 1.5* students are students “whose experiences, characteristics, and educational needs may lie somewhere between those of first-generation adult immigrants and the U.S.-born second generation children of immigrants” (Roberge, 2002, pp. 107-108). Even though this definition appears to be clear, it is very difficult to pinpoint where *Generation 1.5* begins and ends. Holten (2002) attempted to make this definition more precise by classifying *Generation 1.5* students as late-arriving residents and early-arriving residents.

Characteristics of late-arriving students. Typically, late-arriving students study little or no English prior to their arrival in the United States (Ferris, 2009). They may take classes in community colleges or in adult education ESL programs. Some of these students may have sufficient material means while others seek government assistance or financial support from relatives (Ferris, 2009). In regards to their language skills, many of the late-arriving students can be characterized as “ear” learners as described by Reid (2006) because they have learned most of their English informally, through exposure rather than formal instruction.

Characteristics of early-arriving students. Early-arriving students are usually children of first-generation immigrants (Ferris, 2009). Some of these students may come from very privileged backgrounds with well-educated parents (Ferris, 2009). Students who grew up in a

less privileged environment most likely attended schools “with fewer resources to support their academic development and language acquisition” (Ferris, 2009, p. 20). These students are also frequently placed into classes, together with NES, in which they must meet challenging academic demands without proper support (Roberge, 2002).

Long-term ELLs. Students typically born in the United States who have spent at least nine or more years in U.S. schools, but whose L1 is something other than English, are referred to as long-term ELLs (Slama, 2011). These students failed to develop a minimum level of academic language needed to meet rigorous demands of mainstream content-area classrooms (Slama, 2011).

International students. Many international students pursue their postsecondary studies in the United States with the intent to return to their home countries to live and work (Reid, 2006). The majority of four-year postsecondary institutions in the United States require international students to obtain scores from the TOEFL (Ferris, 2009). These scores must meet minimum admission levels that are established by higher education institutions and that may vary from university to university (Ferris, 2009). Because of the high cost of studying abroad, many international students come from privileged and well-educated backgrounds (Reid, 2006). Some of these students are supported by their families while others receive scholarships and grants from the governments in their respective countries (Ferris, 2009). The majority of international students fall into the category of “eye” learners (Reid, 2006). “Eye” learners are defined as those who are literate and fluent in their L1, and they have learned English principally through their eyes, studying vocabulary, verb forms, and language rules (Reid, 2006). These students know, understand, and can explain English grammar; they have usually learned grammar through methodologies that focus on rule learning (Reid, 2006).

International and domestic university ELLs are a highly diverse group coming from different ethnic and socio-economic backgrounds and having various levels of exposure to English. In spite of the fact that there are important distinctions among the ELL student audiences described above, there are certain aspects in regards to their English language proficiency and competency that are somewhat similar among all three groups. In the university content-area classrooms, the issues related to ELLs' English language proficiency and competency levels are often being overlooked. Full understanding of the concepts of English language proficiency and competency and their impact on ELLs' academic performance is not possible without knowledge about L2 learning. Therefore, the next section of the literature review is devoted to linguistic and sociocultural challenges faced by ELLs in the university content-area classrooms begins with a brief overview of L2 learning theories.

Linguistic and Sociocultural Challenges

Second Language Acquisition (SLA)

Three traditions that are commonly associated with the area of SLA are behaviorism, cognitivism, and constructivism. The field of SLA was dominated by the behaviorist theoretical perspective from the 1940s to 1960s (Brown, 2007). The behavioral school of thought was based on the positivist or empirical philosophy of science; the scientific method was rigorously abided by, and such concepts as consciousness and intuition were regarded as illegitimate domains of inquiry (Crotty, 1998). According to the fundamental principle of behaviorism, "people are essentially biological organisms, innately capable of responding to the environment in which they live" (Slife & Williams, 1995, p. 25).

The major SLA theory of that time was associated with *Contrastive Analysis Hypothesis* (CAH) (Brown, 2007). It had been assumed that in an L2 learning situation, learners relied

extensively on their native language. Lado (1957) argued that “individuals tend to transfer the forms and meanings of their native language to the foreign language and culture” (p. 2).

Language was perceived as a habit, and L2 learning was seen as the development of a new set of habits (Brown, 2007). The role of native language was very significant because it was considered to be the major cause of difficulties in SLA (Brown, 2007).

Because Lado’s (1957) work was based on the need to develop pedagogically adequate materials, the proponents of CAH argued that it was necessary to do a contrastive analysis of the learner’s native language and the L2. However, there were many cases when learners did not produce errors predicted by CAH (Brown, 2007). The failure of CAH to successfully predict difficulties in learning L2 led to its demise (Brown, 2007). In the 1960s, the behaviorist theory of language learning was challenged by another school of thought, the cognitive tradition (Brown, 2007).

Unlike behaviorism, the cognitive tradition stressed the importance of mental processes (Brown, 2007). The proponents of the cognitive tradition used a rational approach to discover the deeper structures of human behavior; they divorced themselves from the strictly empirical study typical of behaviorists and utilized the tools of logic and reason in order to obtain explanations for human behavior (Slife & Williams, 1995). In L2 learning, the cognitive tradition is closely associated with the name of the prominent linguist Noam Chomsky (1981) and his theory of L1 acquisition (Brown, 2007).

Chomsky (1981) argued that human language could not be viewed simply in terms of observable stimuli and responses or the volumes of raw data gathered by linguists. He argued for the existence of an innate faculty, or the *language acquisition device* (LAD). The LAD includes *universal grammar* (UG), which is essential for the child’s ability to acquire his or her native

language (Chomsky, 1981). In spite of the fact that this theory has many followers, there is an ongoing controversy in the field of SLA regarding the access of L2 to UG. For example, Robert Bley-Vroman (1989), known for his *Fundamental Difference Hypothesis* (FAD), argued that what happened in child language acquisition was not the same as what happened in adult L2 learning. His basic premise was that adult L2 learners did not have access to universal grammar (UG) (Bley-Vroman, 1989). Although some researchers disagree as to the applicability of Chomsky's (1981) theory for L2 learning, they do not champion the idea of replacing this theory with another one that is more socially oriented (as cited in Long, 1997).

The proponents of the third tradition have been criticizing and rejecting this cognitive bias toward the theory of L2 learning because it totally overlooks the role of social interaction in L2 learning (Brown, 2007). Social constructionism is the school of thought that argues that “all meaningful reality is socially constructed” (Crotty, 1998, p. 55). This paradigm is based on postmodern epistemology, according to which proponents of social constructionism seek to understand how individuals describe the world around them (Slife & Williams, 1995). The fundamental figure in social constructionism was Lev Vygotsky (1978), who supported the view that “children’s thinking and meaning-making is socially constructed and emerges out of their social interactions with their environment” (p. 126).

Sociocultural Theory and SLA

Because of its emphasis on social interaction among L2 learners, their peers, and teachers during the process of L2 learning, social constructivist perspective has become the most current approach in the field of SLA in recent decades (Brown, 2007). This perspective is grounded in Vygotsky's (1978) SCT that stresses the importance of social processes in the development of a person (Moll, 2003). According to SCT, learning does not take place in isolation – inside the

learner – but rather through mediated interactions with others and through the use of language as the primary tool of mediation (Moll, 2003).

Traditional perspectives on language learning, as opposed to SCT, focused primarily on the learner who had to acquire and master language. Language was viewed out of context (Hawkins, 2004; Ohta, 2000). When teaching languages through behavioral and cognitivist perspectives, educators developed curricula based on developmental stages in language acquisition (Ohta, 2000). In contrast to these traditional views on language learning, one of the main postulates of SCT is that “human cognitive development does not take place in a sociocultural vacuum” (Johnson, 2004, p. 148). Learning takes place through social interactions among people and is mediated by language (Vygotsky, 1978).

According to SCT, the learner is no longer viewed as an individual as in previous perspectives on language learning, but rather as a participant in socially-mediated language-learning activities (Hawkins, 2004). Hawkins defined this view on language learning as the one “that sees meanings and understandings constructed not in individual heads, but as between humans engaged in specific situated social interactions” (p. 15). Vygotsky (1978) argued that social interaction is a tool for individual development, especially “when interaction is between a novice learner and a more capable participant” (Donato & McCormick, 1994, p. 37). More capable others – teachers or peers – utilize scaffolding means to help the learner progress to the next level in language acquisition (Donato & McCormick, 1994).

The researcher shares the view of proponents of Vygotsky’s (1978) SCT who regard the process of L2 learning as the construction of meaning through social interaction between a learner and an expert-other or a teacher who uses language as a mediational tool to connect the content of his or her discipline with the student (Lantolf, 2012; Swain, Kinnear, & Steinman,

2011). From the perspective of SCT, acquisition of the language of the discipline is viewed as a social activity. During this activity, content-area faculty and ELLs are engaged in negotiation of meaning of the language of the discipline together.

English Language Proficiency and Competency

The distinction between language proficiency or performance and language competency has been always a controversial subject among researchers. This controversy reflects the debate between the proponents of cognitivism and social interaction in L2 learning (Schwartz, 2012). Language proficiency, in its narrow interpretation, is based on four segments of knowledge: grammar, vocabulary, phonology, and graphology (Bachman & Savignon, 1986). These four linguistic features are used to determine the proficiency levels of ELLs. However, ELLs sometimes pass from one level of proficiency to another, and yet they cannot adequately utilize language to write and read (Bachman & Savignon, 1986). Mastery of proficiency levels is almost always associated with mastering “native-like” fluency; however, according to Valdes, Capitelli, and Alvarez (2011), only five percent of all people who study L2 can achieve “native-like” fluency.

In contrast to language proficiency, language competency may be defined as one’s underlying knowledge about a system or “the nonobservable ability to do something” (Brown, 2007, p. 35). It describes what learners can do with the language, in what context, and for what purpose (Consolo, 2006; Schoonen, 2011). Canale and Swain (1980) offered the model of communicative competence that included four different constructs. These constructs are grammatical competence, discourse competence, sociolinguistic competence, and strategic competence. With the addition of these four constructs, Canale and Swain’s model of

competence considers how people use language outside of the testing context and focuses on social aspects of language (Schwartz, 2012).

The concepts of language proficiency and language competency are very important in the context of academic success of international students who, in order to be admitted to U.S. higher education institutions, must take one of the two most common language proficiency exams: the TOEFL and/or the International English Language Testing System (IELTS). Both tests emphasize accuracy – language proficiency – over interaction – language competency (Schwartz, 2012). While these two tests do have certain differences in regards to their structure, one similarity between them is that they emphasize individual cognitive processing skills over a full range of language competency (Schwartz, 2012). That is why it is quite possible to obtain a qualifying score on either of these two tests and still lack the language competency necessary to navigate successfully in academic settings (Schwartz, 2012).

English language proficiency appears to be a crucial factor in predicting international students' academic development (Dee & Henkin, 1999; Poyrazli & Grahame, 2007). Using the data obtained through focus group interviews with international students, Poyrazli and Grahame (2007) found that many international students considered English language proficiency to be the major barrier in their adjustment to academic life at the university. Several other studies also emphasized language proficiency and its effects on adjustment of the international students to the American education system and academic life (Ying, 2003; Zhai, 2002).

Ying (2003) used a multidimensional model and a longitudinal design to examine academic performance among Taiwanese students in the United States and found that English language proficiency, especially in scholarly writing, was salient for students' academic achievement. Zhai (2002) conducted individual interviews with 10 students at the Ohio State

University to examine international student adjustment issues. Meeting academic demands of university life was one of the most overwhelming issues that the participants in this study experienced. The findings from these studies showed that international students encountered greater problems when communicating in English in academic and social settings. Therefore, adequate levels of language proficiency and competency are necessary for students' academic success.

In a comparable approach, Cummins (1984) proposed a distinction between language proficiency as mastery of both relatively quickly acquired Basic Interpersonal Communication Skills (BICS) and the more slowly attained and less observable Cognitive Academic Language Proficiency (CALP) skills. BICS are the language skills that are utilized in everyday communicative situations, and CALP skills are required to employ L2 in academic settings. Cummins later modified his concepts of BICS and CALP in the form of context-embedded and context-reduced communication. According to this definition, academic or school language is context-reduced whereas face-to-face communication with people is context-rich or context-embedded (Cummins, 1984).

BICS can be acquired by ELLs in natural, communicative settings in a relatively short period of time because these settings provide contextual support for language learning (Cummins, 1984). Eye movements, gestures, instant feedback, cues, and verbal prompts support verbal language acquisition (Baker, 2007). In contrast, CALP is believed to occur in context-reduced academic situations in which higher order critical thinking skills – synthesis, analysis, summarizing, and evaluation – are part of the curriculum. In such situations, language is “dis-embedded from a meaningful, supportive context” (Baker, 2007, p.174). CALP takes much

longer to develop both in the L1 and L2 and in some cases does not develop at all or does not develop adequately (Ferris, 2009).

Academic Language

Other scholars suggest that the development of CALP involves increased mastery in several interacting dimensions identified by Kern (2000) and further developed by Scarcella (2003). These dimensions are linguistic, cognitive, and sociocultural/psychological ones. The linguistic dimension of academic language that is comprised of phonological, lexical, grammatical, sociolinguistic, and discourse elements presents many challenges to ELLs (Scarcella, 2003).

Academic language can be broadly defined as the English used in academic settings to acquire knowledge (Snow, 2010; Snow & Uccelli, 2009). Even though academic language characteristics vary across different disciplines, they share certain commonalities such as conciseness, high frequency of information-bearing words, and existence of specific linguistic structures (Snow, 2010). Snow argued that content-area teachers were not well prepared to teach linguistic aspects of the discipline-specific texts to their ELLs. They understood the importance of teaching students the vocabulary of their disciplines, but they did not realize that scientific vocabulary was often defined with other academic words of which students had no knowledge (Snow, 2010).

The use of academic language implies the use of context-reduced discourse (Fillmore & Snow, 2000), in contrast with the context-embedded conversational language (Scarcella, 2003). Developing academic language proficiency is particularly challenging for ELLs, for it takes approximately six to eight years to develop (Hakuta, Goto Buttler, & Witt, 2000). Slama (2011) analyzed academic English proficiency outcomes for adolescent ELLs based on the data from

2004-2008 for a statewide cohort of 9th grade ELLs and observed an alarming trend that 60 percent of the U.S.-born high school ELLs failed to develop sufficient academic language proficiency necessary to perform academic work in mainstream classrooms successfully. Carhill, Suarez-Orozco, and Paez (2008) investigated factors that contributed to the level of academic language proficiency in first-generation immigrant students. Findings showed that in addition to the learners' individual characteristics, the amount of time students spent speaking English in informal social situations was also predictive of academic English language proficiency (Carhill, Suarez-Orosco, & Paez, 2008).

From the review of the literature on English language proficiency and competency and academic language, it is clear that ELLs have limited academic English proficiency and competency and that it negatively impacts their academic success in mainstream content-area classrooms. The next section of this literature review will outline research studies related to specific linguistic and socio-cultural demands of content-area classrooms and the challenges these demands pose to ELLs.

Linguistic Complexities of Discipline-Specific Discourses

Content-area disciplines have been loosely classified in regards to their epistemological beliefs and their cognitive dimension, such as *hard* versus *soft* and *pure* versus *applied* (Biglan, 1973; Donald, 2002; 2009). English composition and philosophy, for example, are usually referred to as *pure* and *soft* fields of studies, and biology is considered as a *pure* and *hard* discipline. These epistemological structures of content-area disciplines may impact faculty's conceptions about teaching and their instructional approaches about teaching discipline-specific discourses (Cranton, 1998; Cross; 1991; Huber & Morreale, 2002; Kreber & Castleden, 2009;

Lindblom-Ylanne, Trigwell, Nevgi, & Ashwin, 2006; Malkki & Lindblom-Ylanne, 2012; Pace & Middendorf, 2004).

As Short (2002) rightfully argued, “We primarily learn through language and use language to demonstrate our knowledge” (p. 18). The majority of content-area teachers “have begun to realize that the mastery of academic subjects is the mastery of their specialized patterns of language use, and that language is the dominant medium through which these subjects are taught and students’ mastery of them tested” (Short, 2002, p. 18).

Content-area teachers are aware that discipline-specific subjects utilize specific terminology, and teachers make their instruction more accessible by using graphic organizers, cooperative learning, hands-on activities, and by paying special attention to a specialized vocabulary (Gibbons, 1998). What many content-area teachers do not realize, however, is that unlike curriculum planning for NES, for ELLs “the construction of new curriculum knowledge must go hand-in-hand with the development of the second language” (Gibbons, 1998, p. 99) because ELLs in content-area classrooms must master not only English specialized vocabulary and grammar, but also the way English is used in these discipline-specific subjects (Schleppegrell, Achugar, & Oteiza, 2003; Short, 2002).

More and more researchers (e.g. Bain, 2006; Draper & Siebert, 2009; Lee & Spratley, 2010; Moje, 2008; Shanahan & Shanahan, 2012) recognize the fact that each content discipline is very specific in its literacy skills, and that each content-area has specific discourse that consists of ways of “knowing, doing, believing, and communicating” (Moje, 2008, p. 99). These discipline-specific discourses are represented in the organization and structure of disciplinary texts, the use of specialized vocabulary and various graphic representations of information, and specific ways of collecting and presenting information (Moje, 2008). For example, in

mathematics, not only should printed texts be considered as texts, but also graduated cylinders, manipulatives, diagrams, charts, equations, proofs, discussions, and various forms of electronic media (Draper & Siebert, 2009). From Draper and Siebert's (2009) perspective, texts should include anything that people ascribe meaning to and then use to communicate ideas. Students in mathematics classrooms, however, are not able to use these texts effectively without mediation by their teachers who know "how these texts work and the context these texts represent" (Draper & Siebert, 2009, p. 110). Bain (2006), in his qualitative case study with 76 students from three history classes, used discipline-specific mediations such as posters, visual criteria, bookmarks, and various discourse strategies that helped students to read primary sources as well as supporting evidence to develop historical accounts enabling students to assess the history textbook and their teacher critically.

Content-specific discourses of various disciplines possess certain distinctive features that are very challenging for ELLs (Woodward-Kron, 2008). For example, a striking feature of scientific discourse is the presence of Graeco-Latin affixes and roots in technical terms that may serve as a barrier to comprehension. This technical dimension of science discourses is labeled as *technicality* used to compress meanings (Woodward-Kron, 2008). Disciplinary discourses in the humanities, on the other hand, do not contain a large number of technical terms, yet they are also difficult to comprehend due to the level of abstraction in which concepts and events are represented (Martin, 2002). This abstract nature of discourses in humanities is referred to as *abstraction*. The study of Woodward-Kron (2008) addressed the importance of the role of the specialist language of academic disciplines in learning disciplinary knowledge. The author argued that students must adopt the specialist language in order to make meaning and engage easily with disciplinary knowledge (Woodward-Kron, 2008). Adopting the specialist language of

the discipline enables students to show that they have understood the phenomena, discipline-specific concepts, and relations that exist among various phenomena.

In their article about disciplinary literacy, Shanahan and Shanahan (2012) compared the disciplinary literacy approach with the content literacy approach and emphasized the importance of teaching students disciplinary literacy. Disciplinary literacy, Shanahan and Shanahan argued, focused on the unique tools such as vocabulary and language that experts in specific disciplines use to engage in the work of these disciplines. In contrast, content literacy centers on study skills that can help students learn from discipline-specific texts. Because content-area disciplines have their unique purposes, these differences in purposes presume differences in how experts in these disciplines organize their discourses, use vocabulary, and make specific syntactic choices (Shanahan & Shanahan, 2012).

When teaching the vocabulary of science that is rich in words constructed from Greek and Latin roots, teachers must focus on explaining how and why scientific terminology is created and how to use the analysis of Latin and Greek words to understand dense meanings of scientific concepts (Shanahan & Shanahan, 2012). Vocabulary of history, in contrast to the sciences, is rife with metaphorical terms such as the *Gilded Age*. Using the analysis of metaphors employed in history in a similar way to the analysis of the words in sciences will not allow students to discern the meanings of the metaphorical concepts, so another approach should be used to teach history vocabulary (Shanahan & Shanahan, 2012). Teachers must explain to students that technical terms in history do not carry precise definitions, but are meant to present a specific perspective on a particular event or action – *Dark Ages* vs. *Middle Ages* (Shanahan & Shanahan, 2012).

The reality is that many content-area teachers assume that ELLs will be taught English or language in other classes (Short, 2002). Many teachers focus on content mastery without serious

consideration to language through which learning takes place, and they may not be aware of the linguistic demands that are especially challenging for ELLs (Short, 2002). These challenges include but are not limited to vocabulary and specific syntactic structures used in the discipline-specific courses (Rodriguez & Carrasquillo, 1996; Schleppegrell, Achugar, & Oteiza, 2003). The overview of linguistic complexities and appropriate teaching methods to address these complexities are presented in Table 1.

Table 1

Linguistic Characteristics of Some Discipline-Specific Discourses

Discipline	Vocabulary	Language	Pedagogical Approach
Sciences	Constructed from Greek and Latin roots (Shanahan & Shanahan, 2012; Woodward-Kron, 2008) Carries dense precise definitions (Shanahan & Shanahan, 2012; Woodward-Kron, 2008) Uses verbs of relational processes (Fang, 2004)	Uses nominalization –rendering of verbs and adjectives into nouns (e.g. evaporate – evaporation) (Bain, 2006; Shanahan & Shanahan, 2012; Woodward-Kron, 2008) Includes a large number of content words in a clause; Uses passive voice (Fang, 2004)	Explain the purpose of the discipline and the way knowledge is constructed (Moje, 2008; Shanahan & Shanahan, 2012) Build on a student’s background knowledge (Moje, 2008; Shanahan & Shanahan, 2012; Snow, 2010) Teach students how to use Greek and Latin roots to understand word meanings (Shanahan & Shanahan, 2012)
History	Uses openly metaphorical terms (Shanahan & Shanahan, 2012); Carries a perspective on a particular event, person, or action; Utilizes abstraction (Shanahan & Shanahan, 2012; Woodward-Kron, 2008)	Reasons within a clause rather than between clauses; Uses conjunctions in an ambiguous way; Utilizes action, saying and thinking-feeling, and relating verbs (Bain, 2006)	Explain the purpose of the discipline and the way knowledge is constructed (Moje, 2008; Shanahan & Shanahan, 2012) Build on a student’s background knowledge (Moje, 2008; Shanahan & Shanahan, 2012; Snow, 2010) Teach students to read as historians do (Bain, 2006)
Mathematics	Uses multiple semiotic (meaning-making) systems such as charts, diagrams, manipulatives, equations, and proofs as texts (Draper & Siebert, 2009; Schleppegrell, 2007); Uses teachers’ oral language as means to construct knowledge (Schleppegrell, 2007)	Uses passive voice (Draper & Siebert, 2009; Schleppegrell, 2007); Utilizes long dense noun phrases (Schleppegrell, 2007) Employs question phrases (Draper & Siebert, 2009);	Explain the purpose of the discipline and the way knowledge is constructed (Moje, 2008; Shanahan & Shanahan, 2012) Build on a student’s background knowledge (Moje, 2008; Shanahan & Shanahan, 2012; Snow, 2010) Teach close reading and rereading (Shanahan & Shanahan, 2008)

Lemke (1990) investigated linguistic requirements of high school science lessons and found that effective scientific communication was “not just a matter of vocabulary” (p. 12). This study provided an insight into how students developed and mastered communication in science, how students used new concepts in a scientific context, and, more importantly, how these concepts related to each other within a given discipline (Lemke, 1990). Other studies examined particular linguistic intricacies within specific academic disciplines (Abedi & Lord, 2001; Schleppegrell, 2007; Schleppegrell, Achugar, & Oteiza, 2003). These studies focused on particular linguistic features that characterize specific content-areas. For example, Abedi and Lord (2001) investigated the importance of language in student test performance on mathematics word problems. Paper-and-pencil tests were administered to 1,174 students from 11 schools in the Los Angeles area. The authors identified linguistic structures used in mathematics that appeared to be difficult for ELLs. These structures included a lack of familiarity with the math-related vocabulary, passive voice, long complex sentences, and question phrases.

In another study regarding mathematics discourse, Schleppegrell (2007) synthesized the existing research literature conducted by linguists and mathematics educators to discover linguistic challenges in the subject of mathematics and offered specific pedagogical strategies to facilitate students’ understanding of the language of mathematics. Based on her analysis of the literature, mathematics uses multiple “semiotic or meaning-making systems” (Schleppegrell, 2007, p. 147) such as charts, graphs, manipulatives, diagrams, and other aids to communicate meaning in addition to the textbook. According to Schleppegrell, to assist students in their understanding of mathematics discourse, teachers should explain to students how mathematics is constructed in multi- semiotic and grammatical resources (passive voice, noun phrases) and

engage students in interactive activities in which students have an opportunity to use the mathematics register.

In their case study, Schleppegrell, Achugar, and Oteiza (2003) explored the teaching of history at the middle school level with 79 teachers from California. The authors used class observations, interviews with students, and text analyses to identify linguistic challenges students faced in developing discipline-specific literacy. The findings of the study showed that linguistic challenges included nominalization that “present a series of events as a single grammatical ‘participant’” (Schleppegrell, Achugar, & Oteiza, 2003, p. 74), ambiguous use of conjunctions, reasoning within a clause rather than between clauses, and the use of a variety of verbs historians use (action verbs, saying and thinking-feeling verbs, and relating verbs). The authors argued that history provides clear examples of discipline-specific literacy challenges because it is built on texts that cannot be experienced hands-on. Therefore, students should be provided a textual analysis of some discursive features of history textbooks to facilitate their understanding of how the information and arguments are structured (Schleppegrell, Achugar, & Oteiza, 2003). Findings from these studies revealed that the language used in the instruction and assessment of mathematics and history required sophisticated and advanced knowledge of English that the majority of ELLs have yet to master.

In social studies, students generate knowledge using specific reading and writing strategies (Carrasquillo & Rodriguez, 2002). Social scientists must have an ability to read primary sources critically and understand that their realities are constrained by the authors’ points of view, their purposes, and their biases (Lee & Spratley, 2010). Students in social studies classes must possess a variety of skills such as describing, explaining, comparing, contrasting, inferring, analyzing, and evaluating to obtain a complete picture of the historical event (Chamot

& O'Malley, 1994). For ELLs, this is almost an impossible task as they must understand and use content delivered in English to employ these higher order thinking skills, and then they must produce oral and written accounts of these skills in English (Boyer, 2006). In her study of the literature on academic language, Valdes (2004) presented the following characteristics of academic language: (a) the language needed to succeed academically in content-areas; (b) knowledge of specific concepts related and specific to each subject area; and (c) register, a linguistic construct the author uses to differentiate between the home-based and the school-based discourses. The above-mentioned linguistic demands of discipline-specific discourses call for a shift in understanding disciplinary literacy as a means of teaching content while at the same time assisting ELLs in the development of adequate English language proficiency and competency.

The above review of the literature on linguistic demands in the content-area classrooms shows that each discipline or subject area possesses its own discourse or register that requires sophisticated and advanced levels of academic language proficiency and language competency. ELLs who have yet to develop language proficiency and academic language competency may experience challenges in acquiring the discipline-specific content of general education courses. In order to assist students with this challenging task, Ballantyne, Sanderman, and Levy (2008) argued that content-area teachers must focus on teaching discipline-specific language and providing ELLs with a rich meaningful context that will allow them to increase levels of their language proficiency while at the same time to acquire the content of the discipline.

Social Interaction and Culture in Content-Area Classrooms

In recent decades researchers started exploring social demands of interaction and communication within content-area classrooms (Duff, 2002; Gibbons, 2003; Gibbons, 2006; Valdes, 2004). In her study of mainstream teachers developing ELLs' academic language,

Gibbons (2003) introduced teachers who used concepts ELLs had already mastered in their primary discourse in order to add academic English specialized vocabulary to these concepts. The data in this study were collected from two classes of nine and 10-year old students from the same school in Australia. Science teachers from both classes included language teaching in the curriculum of their science courses. Gibbons explained how two science teachers utilized ‘bridging discourses’ to introduce ELLs into the academic discourse. Specific characteristics of these bridging discourses employed by the teachers consisted of: (a) recasting; (b) handing over; (c) metalinguistics; and (d) purposeful communication. Recasting and handing over in the context of Gibbons’ study referred to as a nontraditional discourse defined by Cazden (2001) as a more student-centered type of communication. During such discourse, teachers fostered student-teacher interaction not only to check and assess understanding, but also to facilitate students’ understanding of content through questioning, probing, clarifying ideas, and engaging in academic discourse.

Another important characteristic of bridging discourses was the way teachers made content-area language explicit by engaging students in metalinguistics or ‘talk about talk’ (Gibbons, 2006). Teachers utilized an arsenal of explicit strategies, helping students bridge their home-based literacies with school-based literacies or academic language (Zevenbergen, 2000). This argument regarding making the classroom discourse explicit to ELLs is in line with the ideas of De Jong and Harper (2008) who stated that teachers of ELLs needed to make “the linguistic...foundations visible and explicit” (p. 118). Hence, content-area teachers should be able to assess ELLs’ English proficiency levels and provide a variety of question forms, appropriate to these levels of proficiency to avoid watering down the curriculum. Teachers should provide more explicit scaffolding to ELLs in performing academic assignments and be

aware of the role of language in the classroom. Idioms and colloquial expressions that many teachers utilize during classroom discourse may be incomprehensible for ELLs (De Jong & Harper, 2008).

In other studies about sociocultural issues in content-area mainstream classrooms, Duff (2002) connected teaching and socio-cultural issues. The author explored how language was connected to culture and identity. The author observed two 10th grade social studies classrooms at one school for approximately a year and interviewed students and teachers. The focus of her study was language socialization in mainstream content-area classrooms. Several themes emerged from her research. One of the most prominent findings was that the information and skills needed for students to be successful went beyond linguistic and history knowledge to incorporate factors such as familiarity with popular culture, confidence, and the ability to participate in “quick-paced, highly intertextual interactions” (Duff, 2002, p. 120). Moreover, ELLs in the study were generally very quiet during discussions and expressed fear of being teased by native English speakers, who perceived them as a mass, disregarding their different backgrounds and personalities.

This study provided important insight in that ELLs who lacked necessary cultural and linguistic knowledge might be deprived of access to the social life of their school peers who were NES. The author offered a variety of pedagogical suggestions based on how ELLs may be involved in class discussions about pop culture. These suggestions included devoting more time and attention to media literacy, providing explicit and specific examples that support students’ understanding of current-events discussions, and initiating critical reflection about the biases of different sources of pop culture (Duff, 2002).

In his essay *Dracula, the Vampire Lestat, and TESOL* describing the experiences of Count Dracula in England, Gee (1998) provided a clear explanation of the connection between language and culture. Gee asserted that learning to utilize a language in socially acceptable ways in any culture was called *enculturation*. This process is critically important for language learning; however, enculturation poses some problems. Gee claimed that while enculturation was a necessary requirement for successful communication, it jeopardized one's identity because "as far as language is concerned, being enculturated often involves socialization into dominant, mainstream values" (p. 220). Mainstream teachers should be aware of this complex interaction that exists between language and identity, and they must be sensitive to the issues of language and identity when it comes to teaching ELLs from nonmainstream discursive communities (Gee, 1998).

Unlike linguistic diversity, cultural diversity received more explicit attention in the national content standards (De Jong & Harper, 2008), and it was included in the broad context of race, ethnicity, and gender in these standards. For example, in the "English Language Learners" article by the National Council of Teachers of English (NCTE) (2008), English language arts teachers in mainstream classrooms were expected "to be aware of students' backgrounds and to recognize their prior literacy experiences" (pp. 4-5) as this knowledge would enable teachers to be more effective. This statement is in concert with Gay's (2002) claim that teachers need to use "the cultural characteristics, experiences, and perspectives of ethnically diverse students as conduits for teaching them more effectively" (p. 106).

According to Pappamihel (2004), cultural differences can be defined in two ways. Objective or surface culture typically relates to food, clothing, and artifacts. However, subjective or deep culture is more challenging to recognize because subjective culture covers

philosophies, attitudes, and beliefs, and these constructs are very hard to measure. As many ELLs can easily assimilate into the American culture, many think that these students have also adopted the deep culture (Pappamihiel, 2004).

Because of these cultural differences, ELLs can react differently in various situations. When ELLs observe that their own cultural identities are being endangered, some of them may reject American culture. On the other hand, other ELLs may discard their native culture in order to acculturate (De Jong & Harper, 2008; Hite & Evans, 2006). Gay (2002) argues that ELLs are sometimes expected to “divorce themselves from their cultures” (p. 114). Frequently, “ELLs’ value systems come into conflict with values associated with academic communities” (Scarcella, 2003, p. 30). Examples of such cultural value clashes may include ELLs’ tendency to provide too much summary and not enough critical analysis. This happens due to the fact that these students may have come from cultures in which authors are considered to be the final authority and in which critiquing the author is considered disrespectful (De Jong & Harper, 2008; Ferris, 2009).

Cultural awareness enables teachers to foster their ELLs’ self-esteem and motivation while they are being integrated into mainstream classrooms (Necochea & Cline, 2000). Scarcella (1990) claimed that ELLs’ academic performance improved drastically when teachers accommodated themselves to ELLs’ varying and culture-specific learning styles. It is evident that mainstream content-area teachers must possess proper training and positive attitudes about cultural diversity in order to be effective teachers (Cadiero-Kaplan & Rodriguez, 2008; Gay, 2002; Mantero & McVicker, 2006). If teachers lack adequate training, then there is “the danger of the ‘missionary effect’ – teachers assume that they know best the educational needs of minorities although they actually know little of the cultures of their students” (Gay, 2002, p. 29). Culturally responsive teachers possess several beliefs and apply them in their teaching practice.

According to Grant and Gillette (2006), these beliefs included holding high expectations for all students, establishing relationships with students' families, differentiating instruction and building on students' background knowledge to address students' needs and reflecting on their own biases and misconceptions.

The above review of the literature shows that teachers should provide culturally sensitive and context-rich learning cues to facilitate students' development of discipline-specific discourses. Rich learning contexts are vitally important for ELLs as they learn new content and develop language proficiency at the same time (Lee, Penfield, & Buxton, 2011).

Preparation and Attitudes of Content-Area Teachers Regarding ELLs

K-12 Content-Area Teachers' Preparation to Teach ELLs

Many ELLs take classes along with NES in the content-area classrooms, and more and more teachers find themselves teaching a larger number of students who are culturally and linguistically diverse (De Jong & Harper, 2008). According to the National Center of Educational Statistics (2007), 42 percent of teacher-participants in K-12 settings stated that they had ELLs in their classrooms, but only 12.5 percent of these teachers indicated that they had received more than eight credit hours of professional development related to ELLs.

A survey of 417 institutions of higher education found that fewer than one in six required any preparation for the elementary and secondary teachers regarding teaching of ELLs (Menken & Antunez, 2001). There is an existing assumption among content-area teachers that teaching ELLs requires application of "just good teaching" (JGT) practices developed for a diverse group of NES and that these strategies can be easily incorporated into existing collections of techniques available to faculty (De Jong & Harper, 2008). However, numerous research studies indicate that a high-quality teacher equipped with skills necessary to attend to diverse groups of students

effectively can have a significant impact on these students' learning outcomes (Croninger, Rice, Rathbun, & Nishio, 2007; Darling-Hammond, 2000; Peske & Haycock, 2006).

For example, Peske and Haycock (2006) found that in high-poverty high schools in which there was typically a large concentration of ELLs, the majority of math classes were taught by out-of-field teachers who did not have a college major or minor in math or a math-related field such as math education, physics, or engineering. The authors claimed that teachers did not possess the necessary knowledge and/or skills to deliver the mathematics content to ELLs (Peske & Haycock, 2006). In her article, Darling-Hammond (2000) argued that teachers' effectiveness had a direct impact on students' academic achievement as schools now teach a more diverse group of learners to higher standards than ever before. Content-area teachers must possess a deep knowledge of the subject matter, understand how to organize, present, and deliver this knowledge to their students, assess their learning, and modify instructional practices in accordance with different learning styles without downgrading the quality of learning (Darling-Hammond, 2000).

K-12 Common Core Standards

Darling-Hammond's (2000) idea that content-area teachers should possess substantial knowledge of the content and be able to deliver the content of their disciplines to diverse student populations is also reflected in the K-12 Common Core Standards (CCS). The K-12 CCS is a set of expectations for student knowledge and skills in the areas of English language arts, mathematics, and college and career-readiness that high school graduates need to master to be college-ready (*CCS Initiative*, 2012). The purpose of the K-12 CCS is "to improve U.S. educational outcomes and to focus on fewer but more rigorous standards in language arts and mathematics that are internationally benchmarked" (Zygouris-Coe, 2012, p. 39).

These standards strongly emphasize the idea that all students, including ELLs, should be held to the same high expectations outlined in these standards. These standards also focus on the important role of faculty who should be well prepared and qualified to facilitate ELLs' acquisition of disciplinary discourses while at the same time work to develop their language proficiency and competency by utilizing specific pedagogical strategies and curricular resources (*CCS Initiative, 2012*).

The nature of the K-12 CCS is particularly relevant to the context of this dissertation as adoption of these standards implies a disciplinary literacy learning framework, in that content-area teachers of history/social sciences, science, and mathematics in the K-12 setting will be addressing specific reading and writing standards through disciplinary instructional practices in their discipline-specific classes (Zygouris-Coe, 2012). The disciplinary literacy approach to teaching content-area classes requires teachers to use discipline-specific, effective strategies enabling ELLs to master the content of the discipline while at the same time to develop academic language proficiency (Zygouris-Coe, 2012). The use of the disciplinary literacy approach as a core learning framework of the K-12 CCS is particularly important for ELLs who face challenges when acquiring the content of discipline-specific subjects due to their limited English language and academic language proficiency (Lee, Quinn, & Valdes, 2013).

Once enrolled in the first-year general education courses in postsecondary institutions, ELLs will continue building on and developing specialized knowledge relevant to each content area. This task is not feasible without the support from the content-area faculty who have “a nuanced view of how language is used to communicate meaning” in their disciplines (Lee, Quinn, & Valdes, 2013, p. 4). Content-area university faculty must be prepared to utilize a new teaching approach that puts an emphasis on language use for communication and learning and

that promotes both acquisition of the content of the discipline and the academic language development (Lee, Quinn, & Valdes; Zygoris-Coe, 2012).

K-12 Content-Area Teachers' Attitudes Regarding ELLs

Complete understanding of the experiences of content-area university faculty teaching ELLs in their discipline-specific general education courses is not possible without exploring these faculty's perceptions, attitudes, and beliefs about ELLs. Also, faculty's beliefs and attitudes are a critical aspect of teaching; therefore, they must be explored in great detail. Because of a lack of research literature on content-area university faculty's attitudes regarding ELLs, the researcher has provided an overview of studies related to K-12 teachers' perceptions about ELLs in K-12 settings (Karabenick & Noda, 2004; Reeves, 2006; Walker, Shafer, & Lims, 2004; Youngs & Youngs, 2001).

Several researchers posed questions about teachers' attitudes and beliefs regarding ELLs and attempted to find out what factors influenced or impacted those beliefs (Walker, Shafer, & Lims, 2004). Walker, Shafer, and Lims (2004) conducted their study in the Great Plains state of the River City school district. The participants in the study were K-12 teachers who taught a large number of ELLs. The main finding of their study was that mainstream teachers embraced extremely negative attitudes about ELLs. Using surveys and interviews with teachers, the findings demonstrated that 70 percent of teachers were not interested in working with ELLs due to the lack of time and the lack of appropriate training to instruct and support these students academically. In regards to the lack of training, 87 percent of teachers in this study had never had any training in the area of ESL, and 51 percent of teachers were not interested in professional development even if they would have been provided with such an opportunity. However, Walker, Shafer, and Lims also found that teachers who possessed even minimal knowledge

about language and language acquisition processes demonstrated willingness to address the needs of ELLs.

Another important finding of Walker, Shafer, and Lims's (2004) study was that mainstream teachers had insufficient and inadequate knowledge about the nature of effective instruction of ELL students combined with a lack of knowledge about L2 learning. More than 60 percent of teachers in their study believed that the use of ELLs' native language did not contribute to their academic success. Also, approximately 30 percent of teachers firmly believed that ELLs should achieve native-like fluency in English after just one year of ELL instruction. Finally, teachers in this study thought that special education specialists should be involved in the ELLs' instruction.

Reeves' (2006) study displayed similar results. In her study, the author examined the data from 279 secondary content-area teachers from 12 high schools located in the southeastern part of the United States and found that participants had negative attitudes towards ELLs in that they did not welcome the idea of including ELLs in their mainstream content-area classrooms. Similar to the findings from the Walker, Shafer, and Liam's (2004) study, teachers were not interested in professional development, and only 10 percent of teacher-participants held necessary credentials to work with ELLs. Also, in line with the findings of Walker, Shafer, and Liam's study, approximately 40 percent of teachers in this study stated that ELLs should not be allowed to use their L1 in schools. Seventy percent of teachers believed that ELLs should master English in the course of two years.

The findings of Karabenick and Noda's (2004) study mirrored the conclusions of the two studies mentioned above. Based on the results of the survey administered to 729 K-12 teachers in a Midwestern suburban district, the authors found that the majority of teachers were not familiar

with language and language acquisition theories. For example, just about half of the teachers in the study believed that acquisition of English by ELLs was endangered by the use of their L1 at home. In addition, more than half of teachers agreed with or were unsure of the statement that ELLs' inability to express themselves in English was due to their inability to understand the language. The authors also found that teachers who had been familiar with L2 learning and acquisition theories were likely to have more positive attitudes toward ELLs than those who did not possess knowledge in the area of L2 acquisition.

Finally, Youngs and Youngs (2001) attempted to identify predictors of mainstream teachers' attitudes towards ELLs by surveying a total of 143 secondary teachers from middle and high schools in a midsize Midwestern community. Findings showed that a general educational experience, ELL training, personal experience with foreign cultures, personal contacts with ELLs, and demographic characteristics were five main predictors of mainstream teachers' attitudes towards ELLs. Some of the findings of Youngs and Youngs' study are in concert with the results of the Karabenick and Noda's (2004) study in that taking courses in foreign language and/or multicultural education and being familiar with L2 language acquisition are predictors of positive attitudes towards ELLs.

In summary, the findings of the above-mentioned studies exhibit several trends in mainstream teachers' beliefs and attitudes toward ELLs. Generally, mainstream content-area teachers: (1) lack adequate knowledge regarding how to address ELLs' needs; (2) exhibit insufficient understanding of second language acquisition; (3) do not demonstrate interest in professional development in ELL-related issues; and (4) have a positive attitude towards ELLs if they have taken classes in foreign language, are familiar with the L2 language acquisition process, and have been exposed to foreign cultures.

Higher Education Faculty's Preparation to Teach ELLs

In recent years institutions of higher education have been facing some serious challenges such as developing and providing services for increasingly diverse student populations, dealing with budgetary constraints in the times of economic crisis, battling low retention and graduation rates, and responding to employers' calls for better prepared graduates with broader and higher-level skills (Keller, 2001; Levine, 2000; Rhodes, 2010; Schuster & Finkelstein, 2006). In order to address these challenges, many postsecondary institutions focused their attention on undergraduate learning (Bain, 2004; Flower, 2012; Phifer, 2010; Shenefield, 2012).

One of the key components of the undergraduate curricula in institutions of higher education in the United States is general education. The importance of general education and its role in preparing undergraduate students for academic success as well as success beyond the classroom was first beautifully captured in a seminal work of the Association of American Colleges and Universities' (1994) *Strong Foundations: Twelve Principles for Effective General Education*:

A broad general education for undergraduate students is an ideal that has guided American colleges and universities since their inception. The earliest colleges offered a uniform classical education, and the tradition continued until the late 19th century and early 20th centuries. The growth of science, the expansion and subdivision of knowledge, the development of academic disciplines, and the need for specialized workers - these and other factors cracked the uniformity and gave rise to depth of study in a specialization as a different ideal. Since then, the ideas of breadth and depth, together, have been regarded as the defining elements of quality in baccalaureate education. (as cited in Rhodes, 2010, p. 1)

The skills that, according to employers, are in high demand for college graduates range “from communication to critical thinking skills, from complex problem solving to ethical decision-making, from scientific literacy to real-world application of knowledge and skills” (Rhodes, 2010, p. 3), regardless of a graduate’s major in college. The successful development and mastery of these skills are associated with effective general education programs (Carnevale & Humphreys, 2010).

In addition to the development and a mastery of a variety of skills that ensure the “employability” of college graduates, general education programs also provide students with opportunities “to develop within and beyond the classroom” certain values and beliefs that emphasize compassion, understanding of the community, and personal responsibility (Gaston, 2010, p. 20). The need to develop such skills stems from the premise that the modern world is designed in an intricate way and requires ethical decisions and intercultural understanding (Kreber, 2009). In general education classes, students are able to develop not only knowledge in the subject matter of a specific discipline but also dispositions that help students to be prepared for civic responsibility by acting in socially responsible ways at work and in society in general. Therefore, general education is truly democratic in nature, for “it gives individuals a personal interest in social relationships...and the habits of mind which secure social changes without introducing disorder” (Dewey, 1916, p. 49).

However, in recent years, policy makers in the United States have been searching for ways to decrease the time of undergraduate degree completion by reducing the number of credits and time required to complete a bachelor’s degree at the cost of general education requirements (Gaston, 2010a). At the same time, large numbers of international faculty members from Europe and Asia in which the equivalent of general education is required to be completed prior to

postsecondary education, assert that American college graduates appear to be more creative and more capable of “transferring and applying knowledge and skills to unscripted situations and problems” (Rhodes, 2010, p. 3) than their own college graduates (Jaffe, 2013; Van der Wende, 2011). These international scholars believe that the combination of the general education requirements with the requirements of the major is a key to “the innovation, creativity,” and imagination that they observe in American graduates and also in students from their own countries who have completed their undergraduate education in the United States (Rhodes, 2010, p. 4).

The impact of a broader or an integrated curriculum on student learning was first examined during the Eight-Year study, the major curriculum study of 1930s, conducted by the Progressive Education Association with 30 public secondary schools in the United States (Hinde, 2010). The curriculum of these selected schools was detached from the college and university entrance requirements to enable curriculum experimentation (Pinar, 2010). Although the Eight-Year study took place in a secondary school setting, its results are applicable in the context of higher education. The findings of the Eight-Year study showed that graduates from experimental schools in which a broader or an integrated curriculum was utilized performed much better on the college entrance exams than their peers from schools with the traditional discipline-oriented curriculum (Hinde, 2010). Thus, recent re-emergence of general education requirements in the undergraduate curricula in Europe and Asia may be viewed as an attempt for curriculum experimentation as it was during the Eight-Year study. The purpose of such experimentation is to address the need to provide students not only with the necessary skills and knowledge of specific disciplines but also help students “to broaden their perspectives, encourage interdisciplinary thinking, and foster generic intellectual skills” (Jaffe, 2013, p. 48). In addition to providing

students with skills necessary for “employability” and the development of civic and social responsibilities, general education courses have been referred to as gatekeepers (Seymour & Hewitt, 1997) in that they provide an introduction to the discipline for large numbers of students who may not necessarily major in this content area. In spite of the crucial role general education plays in preparing undergraduate students for life and responding to the demands for lifelong learning, the general education curriculum has been experiencing some very important challenges in recent decades (Gaston, 2010b; Hanstedt, 2012; Kreber, 2009a). One of such challenges is that content-area faculty teaching university general education courses do not possess training in pedagogy and curriculum and, hence, may not be well prepared to address the needs of ELLs enrolled in discipline-specific courses.

In higher education settings in the United States, there exist no state-mandated requirements as to what kind of knowledge and skills university content-area faculty teaching general education courses should possess in order to convey the subject matter to ELL students effectively. Unlike the United States, many countries such as Norway, UK, and Sri Lanka have implemented pedagogical training for their university faculty (Gibbs & Coffey, 2004). The goals of this pedagogical training are to improve faculty’s teaching skills and to develop faculty’s conceptions about teaching and learning. In Finland, many postsecondary institutions make pedagogical training programs available for their faculty so that faculty members have access to training that focuses on best teaching practices and curricular resources available in specific content-area disciplines (Postareff, Lindblom-Ylanne, & Nevgi, 2007).

The Southern Association of Colleges and Schools Commission on Colleges (SACS), a regional body for the accreditation of degree-granting higher education institutions in the United

States, requires faculty teaching undergraduate general education courses to possess knowledge in the subject matter of their disciplines. According to its Comprehensive Standard 3.7.1:

faculty teaching general education courses at the undergraduate level [must hold] doctorate or master's degree in the teaching discipline or master's degree with a concentration in the teaching discipline (a minimum of 18 graduate semester hours in the teaching discipline. (SACS, 2006, p. 1)

It is clear from this credential guideline that the primary emphasis is on faculty's knowledge of the subject matter or teaching discipline not pedagogy. In addition, none of the credential guidelines that comprise Comprehensive Standard 3.7.1 indicate that university faculty teaching general education courses must possess qualifications that include knowledge and/or skills necessary to meet the needs of ELLs.

When ELLs gain entry to the university, they typically take first-year general education courses side-by-side with NES. First-year general education courses comprise approximately 30 percent of the undergraduate ELLs' curriculum, and they represent an important part of ELLs' academic experience (Brint, Proctor, Murphy, Turk-Bicakci, & Hanneman, 2009). These courses allow students to acquire knowledge and integrate it across the disciplines (Klein, Kuh, Chun, Hamilton, & Shavelson, 2005). Hersh and Benjamin (2002) further elaborate on this idea by arguing that general education courses prepare students not only to learn new facts or new bodies of knowledge, but also to master the ability to examine facts, make meaning of them by challenging underlying assumptions, and drawing informed conclusions by analyzing and synthesizing existing facts. These courses, facilitated by knowledgeable faculty, can be labeled as "education for a lifetime" preparing students to live responsible, productive, and creative

lives in a dramatically changing world” (The Association of American Colleges and Universities, 2008).

Achieving the above-mentioned goal of ‘education for a lifetime’ is not an easy task for undergraduate university ELLs who have to develop adequate academic language proficiency and competency and simultaneously acquire content knowledge of discipline-specific general education courses. Without strong support systems in place, ELLs are set up for academic failure (Wardle, 2009). One critically important system that directly impacts ELLs’ academic performance is full-time faculty teaching first-year general education courses (Bensimon, 2007; Poyrazli & Grahame, 2007).

Even though there is a limited number of research studies that focus on preparedness of content-area faculty to meet the needs of ELLs in university classrooms, those that do emphasize the fact that faculty may be ill-prepared to deliver content of their discipline-specific subjects to ELLs (Addy, 2011; Winkle, 2011; 2014). Addy reported that many faculty members who taught science in higher education settings did not have formal training in pedagogical strategies that fostered science learning and ensure students’ mastery of the content of this discipline. The problem is exacerbated in institutions that place a strong emphasis on the content-area faculty’s research productivity where faculty have limited knowledge in pedagogy and lack of desire to familiarize themselves with recent discoveries in teaching and learning in educational research (Addy, 2011).

In his study of faculty’s experiences working in corporate-sector institutions with matriculation pathway programs, Winkle (2014) interviewed two content-area faculty members who were teaching communication and business courses to international students. The context and inquiry focus of Winkle’s study was slightly different than the context of the present study.

In Winkle's inquiry, the content-area faculty were teaching their discipline-specific courses in segregated ELL-only sections, whereas in the present study the phenomenon under investigation was content-area faculty teaching general education courses in university classrooms in which both NES and ELLs were enrolled.

Despite this difference, one of the participants in Winkle's (2014) study acknowledged his own lack of knowledge and training in addressing the needs of ELLs by saying: "I am a Speech Communication person. I am not an ESL teacher" (p. 200) when describing his experience of teaching a communications course to a group of international students in a pathway program pseudonymously named, "Joint Venture Pathway" at the university level. This statement mirrors Addy's (2011) argument regarding higher education science faculty's lack of pedagogical preparation to meet the needs of ELLs. Another content-area faculty member who taught a business course to international students in a pathway program in Winkle's study also stated that "I'm a business person who now teaches. But the truth is I couldn't even come close to language faculty's knowledge of English language learning" (Winkle, 2014, p. 211).

Because the two content-area faculty members in Winkle's (2014) 12-participant study lacked pedagogical and curricular knowledge in teaching content to ELLs, they felt they had to lower their expectations and "water down" the existing curriculum of their classes. For example, one of the participants modified a final exam in his class so that "it was almost half the length in terms of the number of questions [he] would have for NES" (Winkle, 2014, p. 204). He further elaborated: "You know, we have to make accommodations for international students. This course is supposed to be equivalent; it's *supposed* to be equivalent to the course mainstream freshmen taking" (Winkle, 2014,

p. 196). Another faculty member in Winkle’s study also commented that he “could not have the same expectations for these students because these students did not have the language skills” (p. 208). One must remember, however, that students enrolled in the pathway program in Winkle’s study have not yet met university admission requirements.

Statements made by the content-area faculty teaching discipline-specific courses to ELLs in Winkle’s (2014) study are similar to the findings from Wang, Many, and Krumenaker’s (2008) study in which the authors examined a teacher’s experiences in teaching a mainstream social studies class in the K-12 setting. A participant in this study, the social studies teacher, modified his instruction to meet the needs of ELLs “at the possible expense of undermining the intellectual complexity of learning and the level of critical thinking” (Wang, Many, & Krumenaker, p. 82). Even though some of the modifications made by this teacher were appropriate and facilitated the delivery of social studies’ content to ELLs, these modifications came at the expense of the quality of learning.

Faculty Pedagogical Knowledge

Higher Education Faculty’s Construction of Knowledge

A number of research studies explored how content-area faculty constructed their pedagogical knowledge and what impact these experiences produced on their teaching practices, and findings showed that faculty’s pedagogical knowledge was strongly impacted by their experiences as learners (Freeman & Johnson, 1998; Hill, 2013; Richards & Lockhart, 1994). In Major and Palmer’s (2006) study, after interviewing 31 faculty members participating in a campus-wide initiative to transform faculty’s pedagogical content knowledge by integrating problem-based learning into their curriculum, the authors found that the decisions participants

made about how to teach specific content areas were based on how they had been taught in the past, through a traditional lecture method.

Some authors also argue that when faculty just begin their teaching careers, they already possess some nascent knowledge about teaching (Feiman-Nemser & Remillard, 2005; Lampert, 2001; Zeichner, 2007). Pedagogical knowledge is referred to as the dynamic, complex understandings, theories, and beliefs that teachers draw on in their planning of instructional activities for learners (Clark & Peterson, 1986). Clark and Peterson emphasize the fact that teachers may or may not be aware of the impact their learning experiences have on pedagogical knowledge.

Not all past learning experiences play an equal role in teachers' construction of pedagogical knowledge (Nespor, 1987). Nespor (1987) refers to these crucial experiences as "critical episodes" (p. 320) or powerful experiences that create rich memories in the minds of learners and that later direct learners' teaching practices (Nespor, 1987). However, argues Nespor, learners may not engage in necessary reflection about these critical episodes to develop a full understanding from them. As a result, their teaching practices may lack necessary sophistication, and pedagogical knowledge created from personal learning experiences may or may not be well perceived (Nespor, 1987).

Borg (2003), in his study about teachers' cognition or what teachers think, know, and believe and the relationships of these mental constructs to what teachers do in the classroom, found that teachers' experiences as learners do inform their cognition about teaching and continue to exercise influence on teachers throughout their careers. This finding is similar to the arguments made by Freeman and Johnson (1998) and Richards and Lockhart (1994) in that the teachers' instructional practices are directly affected by their previous experiences as learners.

Another factor that plays an important role in faculty's pedagogical knowledge construction is personal practical knowledge (O'Toole, 2010). The personal practical knowledge framework was first introduced by Elbaz (1983) and then elaborated on by Connelly and Clandinin (1985). 'Personal' represents knowledge that has developed from a teacher's personal experiences (Connelly and Clandinin, 1985). 'Practical' implies that the knowledge evolved from personal experiences is available to teacher when needed in the classroom. According to Connelly, Clandinin, and He (1997), teaching is comprised of all teacher's experiences and the way the teacher interpreted these experiences. Teachers' personal practical knowledge impacts all aspects of their instructional practices that include: connecting the content of their disciplines with students, assessment of student learning, the choice of instructional strategies, and teachers' rapport with students (Connelly, Clandinin, & He, 1997). Therefore, "what teachers know and how they express their knowledge is central to student learning" (Connelly, Clandinin, & He, 1997, p. 666).

Lastly, faculty construct their pedagogical knowledge by engaging in reflection on their teaching practices, their core epistemological beliefs, and their students. Dewey (1910) defined reflection as "a particular, defined way of thinking that can be practiced, assessed, and perfected" (as cited in Rodgers, 2002, p. 864). Reflective teaching practices allow teachers to be open to conversations with students about the subject matter of their disciplines and to be open to diversity as "it is hard to conceive of a teacher who is a reflective practitioner but who fails to provide students with opportunities for conversations about diversity and opportunities for student engagement in diversity" (Greene, 1986, p. 21).

McAlpine, Weston, Beauchamp, Wiseman, and Beauchamp (2004) discovered three different types of reflection: (1) reflection that draws on existing knowledge, (2) reflection that

questions knowledge, and (3) reflection that leads to a construction of new knowledge. The existing research on this topic show that academics from hard and soft fields of studies tend to engage in different types of reflective practices. Academics from hard disciplines such as biology and chemistry tend to engage more in reflective practices that draw on existing knowledge or content reflection (Mezirow, 1991). This type of reflection is focused on the problem – content – and teachers’ knowledge regarding how to solve the problem. On the other hand, faculty from soft sciences such as theology and psychology are more prone to utilize process and premise reflections (Kreber, 2005). The effectiveness of the strategy chosen to address the problem is the emphasis of the process reflection. The goal is to determine whether what the teacher does works by looking for some sort of evidence such as monitoring students’ progress. In contrast, during premise reflection “one truly questions [his/her] knowledge and core beliefs and is best positioned to ‘construct new knowledge’” (McAlpine et al., 2004, p. 25).

The above-mentioned discussion about the role learners’ past experiences, personal practical knowledge, and reflective practices play in construction of faculty’s pedagogical knowledge is very important in the context of this study. If teachers’ past learning experiences, personal practical knowledge, and reflections are not associated with ELLs, teachers’ planning and decision-making in regards to ELLs may be negatively impacted and may not meet the academic needs of ELLs.

The last section of the literature review addresses the concepts of *pedagogical content knowledge*, *subject matter knowledge*, and *curricular knowledge* introduced by Shulman (1986). These constructs are part of the teachers’ knowledge base theoretical framework (Shulman, 1986) that guided the present study.

Knowledge, Pedagogy, and Curriculum

One of the earliest works related to the nature of knowledge and its relation to pedagogy and curriculum can be found in John Dewey's (1910) book *How We Think*. From Dewey's point of view, knowledge is incomplete without involvement of students in meaning making.

Knowledge development, according to Dewey, resides within the learners; therefore, the aim of education is to provide learning that revolves around problems, complexities, and issues of the real world because "instruction in subject matter that does not fit any problem already stirring in the student's own experience, or that is not presented in such a way as to arouse a problem, is worse than useless for intellectual purposes" (Dewey, 1910, pp. 198-199).

Historically, the focus of the knowledge bases of teacher education was on content knowledge or knowledge of the subject matter defined by Shulman (1986) as "the amount of and organization of knowledge per se in the mind of the teacher" (p. 9). Later, the focus shifted to emphasize pedagogical classroom strategies often independent of content knowledge and often at the expense of the subject matter (Mishra & Koehler, 2006). More than 70 years after Dewey's (1910) book was first published, Shulman introduced the concept of pedagogical content knowledge. He argued that just possessing solid knowledge of the subject matter and pedagogy was not sufficient to be regarded a good teacher. To show the complex way of how teachers think about how a particular concept should be taught, Shulman defined pedagogical concept knowledge as knowledge "that goes beyond knowledge of subject matter per se to the dimension of subject matter knowledge for teaching" (p. 9).

Effective teachers, in Shulman's (1986) view, confront both content and pedagogy simultaneously by "[embodying] the aspects of content most germane to its teachability" (p. 9). Shulman maintained that teachers should possess a variety of various forms of representations

such as illustrations, examples, and explanations enabling them to deliver the subject matter to their students effectively. Teachers, according to Shulman, must also be aware of their students' misconceptions about the subject matter and be able to reorganize the understanding of their learners. In their paper analyzing how university teaching changes teachers, Martin and Lueckenhausen (2005) supported Shulman's idea about students' misunderstandings or misconceptions about the scientific phenomenon. The authors argued that faculty "will work with students to find out about how students currently see the subject and then work further with them to challenge understandings where they are naïve or limited" (Martin & Lueckenhausen, 2005, p. 408).

Another important characteristic of effective teachers, according to Shulman (1986), is their knowledge of the curriculum or curricular knowledge. Shulman argued that teachers should be familiar with the full range of programs designed for teaching specific disciplines and an array of instructional materials available as related to these programs. Most importantly, teachers must possess an ability to relate the content of a given course to the topics and issues discussed in other classes that students are taking – *lateral curriculum*. The *vertical curriculum* is the teachers' awareness of the topics and issues that have been and will be taught in the same content area during the past and future years (Shulman, 1986).

The issues of lateral and vertical curricula and pedagogical content knowledge are closely related to the concept of *interdisciplinarity* which was the focus of Addy's (2011) doctoral dissertation. In her study, Addy discussed the benefits of *interdisciplinarity* and how interdisciplinarity seeks to truly integrate knowledge among disciplines on a deeper level. Within this approach, faculty truly participate in "learning new ideas, concepts, theories, and methods of another discipline" (Lattuca, 2002, p. 735). An example of such engagement in learning about

other disciplines is evident when science faculty are perusing pedagogical journals to inform instructional practices (Addy, 2011).

Pedagogical content knowledge exists at the intersection of content and pedagogy (Mishra & Koehler, 2006). Teachers who are successful in delivering subject matter to their students challenge both content and pedagogy simultaneously by utilizing “the aspects of content most germane to its teachability” (Mishra & Koehler, 2006, p. 102). In the context of this study, pedagogical content knowledge of faculty teaching general education courses to undergraduate ELLs should be supplemented by their ability to facilitate language development in addition to the mastery of the subject matter.

Research on pedagogical content knowledge is contradictory, and it uses Shulman’s (1986) teacher knowledge framework in a variety of ways (Ball, Thames, & Phelps, 2008; Krauss, Brunner, Kunter, & Baumert, 2008; Mishra & Koehler, 2006; Van Driel, Verloop, & De Vos, 1998). In their study, Ball, Thames, and Phelps (2008) attempted to elaborate on the concept of pedagogical content knowledge and explored the domain of mathematical knowledge for teaching. The authors argued that there existed specific mathematical subject knowledge that was relatively independent of knowledge of students or of teaching which contradicted Shulman’s understanding of pedagogical content knowledge.

Findings from the Krauss, Brunner, Kunter, and Baumert’s (2008) study that investigated whether pedagogical content knowledge and content could be distinguished empirically were somewhat similar to the findings of Ball, Thames, and Phelps’s (2008) study. The results showed that mathematics teachers with in-depth mathematical training had demonstrated more interconnectedness between the two types of knowledge than teachers who had received less-subject matter training.

In contrast to the two above-mentioned studies, Van Driel, Verloop, and De Vos (1998) argued that teaching experience was the major source of pedagogical content knowledge within the context of science teaching, whereas subject-matter knowledge appeared to be a prerequisite. The results of their study were similar to the results of Mishra and Koehler's (2006) research in that both studies highlighted the importance of thorough knowledge of the subject matter and pedagogy in the delivery of content in various content areas. Drawing on Shulman's (1986) concept of pedagogical content knowledge, Mishra and Koehler offered a conceptual framework for educational technology that included three main components of learning environments: content, pedagogy, and technology.

In recent years there have been more and more discussions among practitioners and scholars working in higher education settings about the importance of pedagogy and curriculum knowledge in the teaching practices of university faculty. The majority of research studies that investigated the impact of pedagogy on teaching and student learning outcomes in higher education were conducted outside of the United States, primarily in Australia, Belgium, Finland, and the United Kingdom (Gibbs & Coffey, 2004; Pfund, Miller, Brenner, Bruns, & Change, 2009; Postareff, Lindblom-Ylance, & Nevgi, 2007; Postareff, Lindblom-Ylance, & Nevgi, 2008; Stes, Coertjens, & Van Petegem, 2010).

Many countries now recognize the importance of pedagogical knowledge in teaching in higher education settings; therefore, initial training of university faculty has been implemented in every university in the UK, Norway, and Sri Lanka and is becoming very common in many other countries (Gibbs & Coffey, 2004). Gibbs and Coffey (2004) examined the effectiveness of university faculty's training involving 22 universities in eight countries. Each university had at least a 60-hour long training program. The focus of the study was the impact of training on

teachers' teaching skills, their approach to teaching, and the approach to learning of their students. Three measures were used to report the findings of the study: (a) students' ratings of their teachers; (b) the degree to which teachers self-identified themselves as teacher-focused and student-focused in their approach to teaching; and (c) and the degree to which students of these teachers took a surface approach (attempting to remember content) to learning or a deep approach (attempting to make sense of content) to learning (Gibbs & Coffey, 2004).

The results obtained from the control and experiment groups revealed that pedagogical training was able to increase the extent to which teachers adopted a student-focused approach to teaching. Without training, however, teachers were more prone to use a teacher-focused approach to teaching. As evaluated by students, training was able to improve a number of aspects in faculty's teaching methods whereas with no training, changes in teaching approaches were either not significant or even evident (Gibbs & Coffey, 2004). Finally, training was able to change the faculty in such a way that their students reduced their scores on the "Surface Approach" scale. This indicates that students attempted to make meaning of the content of a particular discipline. Overall, this study provided a glimpse of the positive impact of pedagogical training on faculty's conceptions of teaching and their students' outcomes (Gibbs & Coffey, 2004).

The findings from two studies by Postareff, Lindblom-Ylänne, and Nevgi (2007; 2008) that examined the impact of university teachers' pedagogical training on teaching approaches and self-efficacy beliefs are similar to the findings of Gibbs and Coffey's (2004) study. Using the results obtained from the University Teaching Inventory and interviews with 23 university teachers from the University of Helsinki, Postareff, Lindblom-Ylänne, and Nevgi (2007; 2008) found that pedagogical training fostered a shift from an information transmission/teacher-focused

teaching approach to a more conceptual change/student-centered teaching approach, but the results also showed that this was a very slow change. The authors also discovered that the length of pedagogical training made an impact on teachers' self-efficacy beliefs, in that teachers who underwent a year-long training scored higher on a scale measuring self-efficacy beliefs than those teachers who had just begun their pedagogical training. The findings from these studies also revealed the fact that training made teachers more aware of their teaching practices, provided them with an opportunity to learn about better and more effective teaching practices, and fostered a change in teachers' beliefs about themselves as teachers (Postareff, Lindblom-Ylance, & Nevgi, 2007; 2008).

Stes, Coertjens, and Van Petegem (2010) also investigated the impact of a one-year instructional development program on teaching approaches of the university faculty at the University of Antwerp. When analyzing the results of their study, the authors took into account disciplinary differences that typically had significant implications on teaching practices. The disciplinary differences refer to the distinction between *hard* and *soft* disciplines first described by Neumann, Parry, and Becher (2002). Neumann, Parry, and Becher argued that the curriculum of *hard* disciplines such as chemistry and physics could be conceived as linear and hierarchical, "building up brick by brick towards contemporary knowledge" (p. 407). In contrast, the curriculum of *soft* disciplines such as history and anthropology was holistic, reiterative, and spiral. Content in *hard* disciplines is mostly fixed, cumulative, and measured quantitatively unlike in *soft* disciplines in which content is qualitative, constructivist, and interpretative (Neumann, Parry, & Becher, 2002).

Neumann, Parry, and Becher (2002) also pinpointed that academics in hard disciplines demonstrated a stronger commitment to research and a weaker one to teaching. Compared with

academics from other disciplinary areas, hard discipline faculty members spent the least amount of time preparing for classes. When it came to soft disciplines, a higher emphasis was placed on scholarly knowledge (Neumann, Parry, & Becher, 2002). The findings from Stes, Coertjens, and Van Petegem's (2010) study provided support to the claim that instructional training and the nature of the discipline a faculty member belonged to influenced faculty's teaching approaches. The authors found that teachers associated with *hard* disciplines who participated in training shifted to a conceptual change/student-focused teaching approach only at the end of their training unlike teachers from *soft* disciplines who demonstrated this approach even at the beginning of training (Stes, Coertjens, & Van Petegem, 2010).

The results of Lindblom-Ylaine, Trigwell, Nevgi, and Ashwin's (2006) study champion the findings of Stes, Coertjens, and Van Petegem's (2010) research. Lindblom et al. conducted two studies in which the authors explored the effects of the teaching context on approaches to teaching. The participants in the first study were 340 university faculty members from the UK and Finland, but the participants in the second study were only from Finland (Lindblom et al., 2006). The data were obtained via the Approaches to Teaching Inventory (ATI) developed by Trigwell and Prosser (2001). The results of the study showed that faculty from hard disciplines were more likely to exhibit a teacher-focused approach, whereas faculty from soft disciplines were more student-oriented in their teaching practices (Lindblom et al., 2006). The study also revealed that the same teacher in different teaching contexts may adopt a very different approach to teaching.

The findings of the above-mentioned studies indicate that faculty's personal dispositions about teaching may be impacted by the epistemological structure of their content-area disciplines. Although the existing research on higher education teachers' personal theories and

beliefs about teaching is not extensive, it has shown that these personal orientations about teaching are crucial in understanding how faculty teaches disciplines (Holmes, 2004; Samuelowisz & Bain, 1992; Trigwell, Prosser, & Taylor, 1994; Trigwell & Prosser, 1996; Trigwell, Prosser, & Waterhouse, 1999). Teachers' conceptions about teaching may be impacted by the culture of a specific discipline and its epistemological structure and, to a certain degree, by the educational context in which teaching and learning take place (Holmes, 2004). Personal dispositions regarding teaching and learning also impact the way in which teachers perceive their own roles as instructors (Burroughs-Lange, 1996). Some of these conceptions emphasize the role of the instructor as a director – teacher-centered approach – while others focus on the role of the instructor as a facilitator – student-centered approach. Studies exploring teachers' personal dispositions about teaching and learning at the university level found that these conceptions consistently fell into one or another category – *director* versus *facilitator*; however, neither of these two dispositions was identified as being dominant over the other (Trigwell & Prosser, 1996).

This section of the literature review shows the complex interplay among three important constructs: subject matter knowledge, pedagogical content knowledge, and curricular knowledge in teaching content-area disciplines. It also draws attention to the claim that content-area faculty's teaching approaches and their personal dispositions about teaching may be impacted by the epistemological structures of their disciplines.

This section also emphasizes the important role pedagogy and curriculum play on teaching approaches and student outcomes in higher education settings. It is clear from the overview of literature on teachers' knowledge, pedagogy, and curriculum that in order to deliver content from the discipline-specific courses successfully, it is not enough to be just an expert in a given

discipline. While sound knowledge of the subject matter is very important, it must be supplemented by thorough knowledge in pedagogy and curriculum as “teachers must learn to use their knowledge base to provide the grounds for choices and action...and good teaching is not only effective behaviorally, but must also rest on a foundation of adequately grounded premises” (Shulman, 1987, p. 13).

Summary

The above review of the literature shows that undergraduate ELLs face a number of challenges when taking first-year general education courses in university classrooms. They have to develop their language proficiency and competency and at the same time acquire discipline-specific content of the general education courses. According to Vygotsky’s (1978) SCT, learning does not take place inside the learner, but rather through mediated interactions with capable others such as teachers and through the use of language as the primary tool of mediation. Therefore, full-time content area faculty is one of the most important support systems that directly impacts ELLs’ academic success in general education courses. In order to meet diverse needs of undergraduate ELLs in general education courses, faculty should possess adequate pedagogical content knowledge, subject matter knowledge, and curricular knowledge to utilize an array of scaffolding strategies to connect the content of their disciplines with students.

Conclusion

A review of the literature relevant to the phenomenon under investigation was the focus of Chapter II. Chapter III provides readers with a description of the methodological rationale and background. It describes the specific procedures for participant recruitment, data collection, analysis, and interpretation, as well as measures taken in an effort to provide rigor, reliability, and validity to the findings.

CHAPTER III

METHODOLOGY

This chapter provides an overview of the research paradigm and the rationale for using a qualitative study and qualitative multiple-case study design. In addition, techniques that were used to select participants and to gain entry into the research context are described in this chapter. This chapter also focuses on procedures that were undertaken to protect the participants and their confidentiality. Finally, data sources, data collection procedures, data analysis procedures, and measures taken to ensure dependable and credible results are provided in this chapter.

The purpose of this qualitative multiple-case study was to understand, describe, and explain full-time university content-area faculty's experiences when teaching first-year general education courses in which ELLs were enrolled. The present study attempted to answer the following research question: How do full-time university content-area faculty members describe their experiences of teaching first-year general education courses in university classrooms in which ELLs are enrolled? Qualitative data were collected via participants' responses to a brief e-mail questionnaire, the researcher's observations of participants' classrooms during instructional sessions, and two rounds of one-to-one digitally recorded interviews with five full-time content-area faculty who taught first-year general education courses at the research site located in South Florida.

Qualitative Research Paradigm

According to Denzin and Lincoln (2008), a research paradigm is a set of beliefs that guides the action of the researcher. Qualitative research originates from constructivist, phenomenological, advocacy knowledge claims (Creswell, 2007). Qualitative researchers make

certain assumptions when conducting qualitative inquiry. Their ontological assumption refers to the nature of reality. When conducting qualitative research, qualitative researchers embrace the idea of multiple realities (Creswell, 2007). They assume that reality is socially constructed, and there is no single reality waiting to be discovered (Merriam, 2009). To conduct a qualitative study entails staying in the “field” to get to know the participants (Creswell, 2007, p. 18).

Qualitative research further emphasizes studying individuals or groups in their natural setting while using the person of the researcher as an instrument for information collection to gain insight into the meanings people make of their experiences (Creswell, 2007). Merriam (2009) describes qualitative research as “an umbrella concept covering several forms of inquiry that help us to understand and explain the meaning of social phenomena with as little disruption of the natural setting as possible” (p. 5). According to Merriam, qualitative researchers attempt to understand the phenomenon from the participants’ perspectives.

Rationale for a Qualitative Study

Drawing from the philosophy of constructivism, qualitative researchers are interested in how people interpret their experiences and what meanings they ascribe to these experiences (Merriam, 2009). The purpose of the present study was to understand the experiences of full-time content-area university faculty teaching undergraduate ELLs from these faculty members’ perspectives which fit well with the purpose of qualitative research. The researcher was a primary instrument for data collection and analysis in the present study. Using a qualitative research design allowed the researcher to study the phenomenon under investigation in its natural setting and provided a means of gathering rich, thick descriptions which is an important characteristic of qualitative research (Patton, 2002). In-depth, detailed descriptions of the participants’ experiences were captured through questions about what and how the participants

experienced the phenomenon of teaching general education courses in which ELLs were enrolled and what meanings they ascribed to these experiences.

Research Method

A case study lens was used for the present study. According to Merriam (2009), “A case study is an in-depth description and analysis of a bounded system” (p. 40). A definition of a case study by Creswell (2007) is congruent with the Merriam’s definition of a case study. He states:

Case study research is a qualitative approach in which the investigator explores a bounded system – a case – or multiple bounded systems – cases – over time, through detailed, in-depth data collection involving multiple sources of information (e.g. observations, interviews, audiovisual, material, documents, and reports), and reports a case description and case-based themes. (p. 73)

Qualitative case studies search for meanings and understanding, use the researcher as the primary instrument of data collection and analysis, and provide a report that is full of thick, rich descriptions. Case study research has been distinguished from other qualitative approaches because the cases are context sensitive (Patton, 2002). One of the unique strengths of the case study is its ability to handle a variety of data sources such as documents, observations, interviews, and artifacts (Yin, 2014).

Rationale for a Case Study

The researcher utilized a case study methodology in the present study. As the researcher attempted to answer the “how” research question, the choice of the case study “had a distinct advantage” (Yin, 2014, p. 13). Yin argues that case studies are preferred in “examining contemporary events over which an investigator has little or no control” (Yin, 2014, p. 13). The teaching of undergraduate ELLs by full-time content-area university faculty in general education

courses represents a contemporary event, and the researcher does not have any control over the behaviors of the participants. These behaviors cannot be manipulated which made a case study the best methodology choice for the present study.

A multiple-case study design was utilized in the present study because, as Yin (2014) suggests, “when there is a choice and resources, multiple-case designs may be preferred over single-case designs” (p. 60). When conducting a multiple-case study, the researcher has the possibility of direct replication, and naturalistic generalizations “arising from multiple cases will be more powerful than those coming from a single case” (Yin, 2014, p. 61).

Another reason for selecting a multiple-case design over a single-case design was that the present study did not meet the requirements for selecting a single-case study design as it did not represent the critical case, the extreme case, the typical case, the revelatory case, or the longitudinal case (Yin, 2014). The multiple-case study inquiry was deemed fitting to guide the present study because the researcher was interested in insight, discovery, and interpretation of how the full-time content-area university faculty members described their experiences teaching first-year general education courses in which ELLs were enrolled in university classrooms. The researcher’s purpose was to “uncover the interaction of significant factors characteristic of the phenomenon with a focus on holistic description and explanation” (Merriam, 2009, p. 43).

Participants and Sampling

Five full-time content-area faculty teaching first-year general education courses in which undergraduate ELLs were enrolled at the research site located in South Florida were recruited to participate in the present study. A purposeful sampling technique was utilized to select participants for this study to ensure the selection of information-rich and diverse cases (Patton, 2002).

Rationale for Selecting the Research Site

The researcher selected the research site because this institution positions itself as an international university that recruits large numbers of international and domestic students who are NNES. For example, 290 international undergraduate students from 63 countries were enrolled at this institution in the spring of 2013 semester (C. B., personal communication, February 2, 2013). Further, unlike large state universities that primarily employ part-time adjunct faculty to teach first-year general education courses (Jaeger & Eagan, 2011), full-time faculty members at the research site regularly teach many sections of first-year general education courses.

These faculty members are accessible to students both inside and outside of the classroom, know their students, and strive to meet their needs. In contrast to research universities in which faculty are typically evaluated by the number of research publications and research outcomes (Jensen, 2011), the research site is a teaching institution, and, in regards to faculty credentials, places the major emphasis on the capacity and quality of teaching. Since the present study is concerned with curriculum and instruction, this research site fits well with the purpose of the study. Finally, during the 2011-2012 academic year, this institution proposed a university-wide initiative to enhance the academic experiences of first-year undergraduate students. As the purpose of this study directly related to students' first-year academic experiences, this institution was an excellent research site for the present research study.

Rationale for Selecting Participants for the Study

Only full-time faculty who taught first-year general education courses at the research site were invited to participate in the present study. Much research on the quality of undergraduate education (Baldwin & Wawrzynski, 2011; Eagan & Jaeger, 2008; Umbach & Wawrzynski,

2005) discusses the educational benefits of student engagement in their learning process by frequently interacting with faculty and by being actively involved in classroom activities. Part-time faculty who are often employed at multiple institutions and/or have jobs outside of institutions of higher education have limited time to interact with students outside of instructional class time and to build close relationships with students. In contrast, as evidenced in research on quality education and undergraduate student first-year experiences, exposure to full-time faculty in the first year of college positively affects student learning outcomes and quality of student education (Liu & Zhang, 2007; Thompson, 2003).

Full-time faculty teaching first-year English composition and literature courses did not meet the criteria for the present study. Typically, in first-year English composition and literature courses, students learn the basics of the writing process and strategies to improve their writing. The activities and assignments in these courses do not include content related to discipline-specific genres (Wardle, 2009). In contrast, in discipline-specific courses, students have to acquire content knowledge of the discipline and use writing, for example, to demonstrate this knowledge and convey results (Wardle, 2009). Therefore, the issue of teaching ELLs in mainstream writing classrooms was not the focus of the present study. The researcher was not a direct supervisor of any of the participants in the present study.

Instrumentation

In qualitative research, the researcher is the instrument of data collection, data analysis, and data interpretation (Patton, 2002). Therefore, the researcher was the primary instrument in the present study. The researcher maintained her reflective journal through the data collection and data analysis phases as these stages in the dissertation process called for a comprehensive reflective process during which the researcher questioned her beliefs, biases, and doubts. The

researcher stayed open to data as they were collected. Qualitative data were collected via participants' responses to a brief e-mail questionnaire, vignettes reflecting observations of participants' classroom during instructional sessions, and two rounds of one-to-one digitally recorded – approximately 90 minutes each – interviews with participants.

The researcher's observations of participants' classrooms during instructional sessions were not part of the original design of the present study. However, as Patton (2002) argues, naturalistic inquiry designs cannot be completely determined prior to the start of fieldwork. Instead, "a naturalistic design unfolds or emerges as fieldwork unfolds" (Patton, 2002, p. 44). Lincoln and Guba (1985) also champion this view by stating that "the design of a naturalistic inquiry cannot be given in advance; it must emerge, develop, unfold..." (p. 225). During one-to-one interviews with participants, each and every one of the participants, to a person, invited the researcher to visit undergraduate general education classes they had been teaching at the time the present study was conducted. The researcher observed firsthand that participants were genuinely enthusiastic about sharing their classroom experiences. Participants stated that the researcher's observations of their classroom settings would provide a better understanding of their experiences teaching undergraduate general education courses in which ELLs were enrolled and enable the researcher to fully understand meanings participants ascribed to these experiences.

Participants invited the researcher to visit their classrooms with enthusiasm and eagerness. The researcher was equally excited with the idea of attending participants' classrooms as she shares the view of Merriam (2009) that observations of participants' classroom settings enable the researcher to "observe things firsthand" and to provide the researcher with some knowledge of the context of each case. Understanding the context is very important in order to obtain a holistic perspective about the phenomenon under investigation (Patton, 2002).

Observations are deemed to be a very useful strategy for understanding, describing, and explaining “ill-defined phenomena” (Merriam, 2009, p. 119). Since the phenomenon under investigation in the present study, i.e. full-time university content-area faculty’s experiences teaching first-year general education courses in which ELLs are enrolled, is not well-described and researched in the scholarly literature, direct observations of participants’ classroom settings, their learning environment, and their atmosphere enabled the researcher to better understand participants’ experiences.

The researcher made a decision to present participants’ classroom experiences in her study report through vignettes because she champions Erickson’s (1986) view who argued that writing a vignette based on field notes “could be a powerful means for surfacing and clarifying [the researcher’s] own perspective on what is happening” (p. 185). According to Wolcott (1994), vignettes are a qualitative illustration that helps the reader see what the researcher has observed and hear what the researcher has heard.

A vignette captures significant moments of fieldwork such as observations and transforms them into a narrative that is representative or emblematic of a case (Miles, Huberman, & Saldana, 2014). A total of five vignettes were created, one to portray each classroom observation.

The researcher conducted one round of direct observations of participants’ classroom settings shortly after the first round of one-to-one interviews with participants in November 2013. Although all participants in the present study confirmed that there were ELLs enrolled in all sections of general education courses they were teaching at the research site at the time the present study was conducted, the researcher was not aware of the exact number of ELLs present in participants’ general education classrooms on the days she conducted observations, if any.

Any data that could potentially identify participants and/or students during observations were anonymized in vignettes.

The researcher's observations of participants' classrooms during instructional sessions were not audio-recorded; instead, the researcher took detailed, highly descriptive field notes that also contained the record of the researcher's thoughts and reactions she experienced during observations when she observed any activities and/or interactions related to ELLs. One of the five vignettes is written in the form of a dialogue between a participant and his students because writing a vignette in such a manner allowed the researcher to capture the most salient feature of this particular observation. As the researcher's intent was to enable the reader "to feel as if they were there and saw what the observer saw" (Merriam, 2009, p. 130), the researcher wrote each vignette on the same day the observation took place enabling her to utilize both her notes and remembrances of observations when writing vignettes.

When reconstructing the field notes of participants' classroom observations into vignettes, the researcher made a decision to use the present tense to describe events that occurred during classroom observation and to use the first person "I" to denote the researcher's reflective voice. The use of the present tense and the first person "I", although not commonly used in dissertations utilizing the American Psychological Association (APA) format, enabled the researcher to recreate these classroom experiences in an active dynamic manner and, therefore, made events more immediate. More importantly, the use of the first person "I" allowed the researcher to incorporate her reflections regarding how certain activities and/or interactions she captured during observations were related to ELLs and to explain this relevance to the reader.

Along with the five vignettes reflecting participants' classroom observations, the researcher also included in her study report short introductions of each participant based on their

responses to a brief e-mail questionnaire they completed prior to the first round of interviews and excerpts from participants' one-to-one interviews with the researcher. Each introduction of the participant is preceded by a direct quote obtained from a one-to-one interview with the participant. These quotes represent participants' perceptions regarding the roles they played in general education classrooms when teaching the language of the discipline to students. Understanding how participants describe their teaching roles enables the reader to interpret findings of the study in the most effective way. Any data used in the brief introductions of participants were anonymized to protect participants' confidentiality.

Both the brief introductions of each participant and the five vignettes were included in Part I of Chapter IV prior to presenting the results of the cross-case data analysis. Providing descriptions of participants prior to presenting the results of the cross-case data analysis in Part II of Chapter IV enables readers to familiarize themselves with the background information of each participant. Consequently, such familiarization facilitates readers' interpretations and understandings of the findings of the study (Merriam, 2009).

To ensure this study's transferability or possible application of the study's findings in different situations, "the researcher has an obligation to provide enough detailed description of the study's context to enable readers to compare the 'fit' with their situations" (Merriam, 2009, p. 226). One of the most important strategies that has been employed in qualitative research to enhance studies' transferability is the use of thick, rich descriptions of the research setting, its participants, and findings (Merriam, 2009). As Lincoln and Guba (1985) further corroborate, the creation of "a thick description of the sending context [enables] someone in a potential receiving context to assess the similarity between them...and the study" (p. 46).

The researcher conducted two rounds of one-to-one, digitally audio-recorded interviews with the selected participants utilizing semi-structured interview protocols (see Appendix A and Appendix B). Five full-time faculty participants engaged in two 90-minute interviews with the researcher in the fall 2013 semester. The first round of one-to-one interviews with participants was conducted in October 2013. The researcher then observed participants' classrooms at the beginning of November 2013. The second round of one-to-one interviews with participants was held at the beginning of December 2013 (see Table 2). During the one-to-one interviews with the participants, the researcher took only minimal notes that included words or some key phrases. Each interview was transcribed by a qualified expert with years of transcription experience soon after the interview was completed. Prior to transcribing the interviews, the transcriptionist signed a third party confidentiality agreement (see Appendix C).

Procedures

The following were the procedures used for collecting data for the present study.

Recruitment

Gaining access to the research site involved several steps (Creswell, 2007). Prior to participants' recruitment for the present study and the data collection stage, the researcher sought a review and approval of this study's design, procedures, and rationale from the Dissertation Committee, the Adrian Dominican School of Education, and the Barry University's Institutional Review Board (IRB). As the researcher wanted to recruit full-time content-area faculty teaching a variety of general education courses housed in various colleges and schools at the research site, the researcher sought permission for soliciting participants for the present study from the dean of the college to ensure a seamless process of data collection and to avoid unanticipated obstacles that could have arisen in this process. The researcher sent the dean the Permission to Solicit

Participants E-Mail (see Appendix D) and asked the dean to confirm permission by responding to the researcher's e-mail.

Regarding the sample size in a case study, Creswell (2007) suggests to choose no more than four or five cases. Hence, no more than five participants were sought for the present study. Participants in this study were five full-time content-area faculty members teaching first-year general education courses in which ELLs were enrolled at the research site. To ensure the representation of the information-rich and diverse cases, the researcher sought participants teaching first-year general education courses at the research site in five different content areas. In the present study, participants were teaching biology, communications, psychology, and theology. To determine which first-year general education courses were offered in the term in which the research was planned to be conducted and taught by the full-time content-area faculty, the researcher consulted the university fall 2013 schedule of classes. The researcher then drafted the list of potential courses and sections and names of full-time faculty teaching them, creating the pool of purposefully selected prospective participants. The researcher obtained the e-mail addresses of the full-time content-area faculty from the research site's internal website.

After obtaining approvals from the researcher's Dissertation Committee, the Barry University's IRB, and the dean, the researcher utilized a purposeful sampling technique to recruit participants for this study. The inclusion criteria were: (1) participants had to confirm their willingness to participate in the study by responding to the Recruitment E-Mail (see Appendix E), and (2) participants had to confirm that there were ELLs enrolled in the general education courses they were currently teaching. The Recruitment E-Mail (see Appendix E) included a brief questionnaire to which participants were asked to respond. A total of seven participants responded to the researcher's Recruitment E-Mail (see Appendix E).

After prospective participants confirmed their willingness to participate in the study by responding to the Recruitment E-Mail (see Appendix E), they were asked to determine whether there were any ELLs enrolled in the prospective participants' first-year general education classes in the term in which the research study was conducted. The prospective participants were asked to distribute to students a one-question ELL Self-Identification form (see Appendix F) during the first month of classes. The researcher e-mailed a one-question ELL Self-Identification form (see Appendix F) to the prospective participants that they could utilize to identify if there were any ELLs enrolled in the first-year general education classes they were teaching at the time the present study was conducted. The question on the ELL Self-Identification form (see Appendix F) asked students to determine whether they considered English their first/native language or not. Although which language ELLs consider as their L1 may be affected by many factors such as the length of exposure to their L1, the matter of prestige, cultural and societal beliefs, the researcher believed that the question posed on the ELL Self-Identification form (see Appendix F) served as further refinement of the definition of *ELLs* she utilized in the context of the present study, i.e. "students who were in the process of learning English as a second/additional language" (Hamayan & Freeman, 2012, p. 148).

Students' responses to the question on the ELL Self-Identification form (see Appendix F) enabled faculty participants to determine whether there were any ELLs enrolled in the general education courses they taught at the research site when the study was conducted. Five participants confirmed via e-mail to the researcher that they had ELLs enrolled in each section of general education courses they were teaching at the time the present study was conducted. Participants did not notify the researcher about the exact number of ELLs enrolled in each section of the general education classes they were teaching at the research site at the time this

dissertation study was conducted. After administering a one-question ELL Self-Identification form (see Appendix F) to students, one prospective faculty participant notified the researcher via e-mail that there were not any ELLs enrolled in this participant's first-year general education classes at the research site. This participant was, therefore, not selected to participate in the study. The researcher did not select one other participant with whom she worked closely in the past at the research site to avoid any potential threats to dependable and credible results of the present study.

Participants were informed that their participation was voluntary and that all data would be kept confidential. After selecting the participants, the researcher sent the selected participants a Confirmation E-Mail (see Appendix G) and attached the Informed Consent form (see Appendix H) for their review. A Thank-You letter (see Appendix I) was sent to individuals who were willing to participate but were not selected. In the e-mail sent to selected participants, the researcher asked participants to review the Informed Consent form (see Appendix H) and proposed dates for the first round of one-to-one interviews. A week after the Confirmation E-Mail (see Appendix G) was sent to participants, the researcher received e-mails from selected participants in which they confirmed the dates of the first round of one-to-one interviews.

The first round of one-to-one interviews was held on days and at times mutually agreed upon before the start of the first round of interviews and at the location convenient for the participants. During the first round of one-to-one interviews with participants, the researcher explained to participants that they may refuse to answer any of the questions during the interviews and/or withdraw from the study at any time without any adverse effects and that, should they choose to withdraw from the study, any and all data associated with past participation would be immediately destroyed. Participants were informed that there were no

known risks to them. Once the research intent and process were clearly explained, the researcher ascertained that the Informed Consent form (see Appendix H) was read and signed by each participant and signed by the researcher. Each participant was asked to select a pseudonym to be used throughout the study. One participant wished the researcher to select the pseudonym for him/her. The researcher had to change one of the participant's pseudonyms later during the data analysis stage to protect this participant's confidentiality. To further ensure that participants' confidentiality is preserved, the researcher asked participants if they agreed to be re-gendered when reporting the findings of the present study.

The present study is a confidential study. Information participants provided was held in confidence to the extent permitted by law. The participants were informed that their identities would be kept confidential. Digital recordings of the interviews were transcribed by a transcriptionist who signed a third party confidentiality agreement (see Appendix C). This list of pseudonyms and signed Informed Consent forms (see Appendix H) were kept separate from all data collected for the study in a locked cabinet in the researcher's home. Prior to signing the Informed Consent form (see Appendix H), participants were advised that the digital interview files would be destroyed at the completion of the study, and all data associated with the study would be destroyed within five years following the completion of the study.

Data Collection Procedure

Table 2 presents the four phases of the data collection process.

Table 2

Data Collection Timeline

Phase	Time	Type of Data Collected
Phase 1	End of August 2013 - September 2013	Sent the Recruitment E-mail (see Appendix E) that included a brief questionnaire and received participants' responses
Phase 2	Beginning of October 2013	Conducted the first round of one-to-one interviews
Phase 3	End of October 2013 – beginning of November 2013	Conducted direct observations of participants' general education classrooms
Phase 4	Beginning of December 2013	Conducted the second round of interviews with participants

During Phase 1 at the end of August 2013, the researcher sent a Recruitment E-Mail (see Appendix E) to all prospective participants. This e-mail included a brief background questionnaire. At the beginning of September 2013, the researcher received responses from seven prospective participants. Phase 2 in the data collection process took place at the beginning of October 2013. During this phase, the first round of one-to-one digitally recorded interviews following a semi-structured interview protocol (see Appendix A) was conducted. The researcher and the participants scheduled the dates for the second round of one-to-one interviews during the time the first round of interviews was held. At the end of the first round of interviews meetings, participants invited the researcher to attend their general education classrooms in which ELLs were enrolled at the research site. The researcher and participants also scheduled the dates for the

classroom observations at the end of each meeting during which the first round of interviews took place. The researcher conducted five direct classroom observations of participants' general education classrooms at the end of October 2013- beginning of November 2013 during Phase 3 of the data collection process. Phase 4, the last phase in the data collection process, took place at the beginning of December 2013 during which the researcher met with participants for the second round of one-to-one digitally recorded interviews using a semi-structured interview protocol (see Appendix B).

The researcher used semi-structured interview protocols (see Appendix A and Appendix B) as interview guides that contained questions related to the research questions of the study (Patton, 2002). The semi-structured interview protocols enabled the researcher to remain free to build a conversation with the participant within a particular subject area (Patton, 2002). The researcher took only minimal field notes during one-to-one interviews with participant. These field notes included some words or key phrases denoting the researcher's reactions to participants' responses to interview questions.

Process to Ensure Dependable and Credible Results

In order to suspend her biases and to better understand the phenomenon under study, the researcher engaged in bracketing strategies by writing down personal thoughts, quotes from other studies related to some of the themes emerging from the data, and perceptions in a researcher's reflective journal primarily through the stages of data collection and data analysis (Creswell, 2007; Patton, 2002). The researcher labeled this journal "Dissertation Thoughts" and maintained it on her iPad so that she could have easy access to this journal at any time. In addition to maintaining a reflective journal, the researcher was actively engaged in conversations about the findings of her study with the Dissertation Committee Chair. Although the researcher's

Dissertation Committee Chair is not an expert in the area of TESOL, she holds a terminal degree in the area of curriculum and instruction and has been teaching undergraduate students at the university level for a number of years. As the focus of this study was to understand content-area faculty experiences teaching general education courses to undergraduate ELLs and because study findings were also related to the scholarship of teaching and learning, these conversations served as a venue for the researcher to exchange ideas, clarify meanings, and suspend biases.

Maintaining a reflective journal and being engaged in conversations about her study enabled the researcher to identify the most obvious bias or the belief that all university content-area faculty teaching first-year general education courses should teach discipline-specific discourses explicitly to their students including ELLs. The researcher also reflected on surprising findings that were not in accordance with her assumptions. One of such previous assumptions that the researcher had was that content-area faculty teaching undergraduate ELLs in general education classrooms might not be fully prepared to meet their ELL students' needs. The researcher remained open to data as they were revealed in order not to allow her own meanings, beliefs, and perceptions to affect her analysis and interpretation of the participants' perspectives and views.

In order to ensure trustworthiness and credibility of her study, the researcher used member checks (Merriam, 2009). The researcher conducted member checks, or respondent validation, by e-mailing each participant separately her portrayals of participants' classroom observations to ensure accuracy and integrity of her descriptions.

Yin (2014) states that "a major strength of case study data collection and analysis is the opportunity to collect, analyze, and develop convergent evidence that comes from multiple sources" (pp. 120-121). The researcher in the present study utilized multiple sources of evidence

that included participants' responses to a brief e-mail questionnaire, participants' classroom observations, and two rounds of one-to-one interviews with participants. The researcher triangulated the data from participants' responses to a brief e-mail questionnaire, participants' classroom observations, and two rounds of interviews with participants by writing down major threads and significant statements related to participants' experiences of teaching general education courses in which ELLs were enrolled on to the large poster paper which was kept in the researcher's home office. This method allowed the researcher to study, read, and think about the trends/patterns or cross-case themes the researcher pulled out from all five cases.

Finally, to enhance the possibility of the present study's transferability, the researcher provided thick, rich descriptions of each participant in a form of brief introductions based on participants' responses to an e-mail questionnaire and vignettes reflecting participants' classroom observations prior to presenting the data findings as a cross-case synthesis data analysis. The researcher also included detailed specific exemplars from individual cases in the cross-case analysis in Part II of Chapter IV of this dissertation.

Data Analysis and Interpretation

As in many qualitative research studies, data collection and data analysis were concurrent processes in the present study (Merriam, 2009). Although the researcher had to wait for the transcriptions of two rounds of one-to-one interviews with the researcher from a transcriptionist who was hired to complete transcriptions, the data analysis process began when the researcher received participants' responses to a brief e-mail questionnaire included in the Recruitment E-mail (see Appendix E) in September 2013. At that time, the researcher started organizing case data and developed what Yin (2014) refers to as the *case study database*. The main purpose of

the case study database is to preserve the data in a retrievable form and to facilitate the analysis of data (Yin, 2014).

The researcher saved e-mails with their responses to a brief e-mail questionnaire and stored them electronically on her computer. The researcher printed these e-mails with participants' responses to read and analyze the data and to use these printouts of participants' responses for coding. The data analysis continued immediately after the researcher conducted the first round of one-to-one interviews with participants in October 2013. The researcher saved digital files of all first-round interviews with participants on her computer in the case study database and began listening to the digital recording files of these interviews to familiarize herself not only with what was said but also how it was said. The researcher listened to each interview file multiple times.

After conducting participants' classroom observations at the end of October 2013 - beginning of November 2013, the researcher typed her field notes and saved them electronically in Microsoft Word in the case study database. These field notes were then reconstructed into vignettes reflecting observations of participants' classrooms during instructional sessions. The researcher printed hard copies of each of five vignettes and began reading them multiple times in order to immerse herself into the data. After conducting the second round of one-to-one interviews with participants at the beginning of December 2013, the researcher first saved all digital files of interviews on her computer in the case study database. She then commenced listening to interview files multiple times to acquaint herself with participants' responses. It was at that time in the data analysis process that the researcher noticed a very surprising recurrent pattern, i.e. participants in the study appeared to view all students enrolled in their discipline-specific courses as non-native speakers of the language of their discipline – non-native speakers

of biology, non-native speakers of communications, non-native speakers of theology, and non-native speakers of psychology.

The researcher received electronic transcripts of all 10 interviews from the transcriptionist at the end of February 2014. The researcher first saved all electronic transcripts on her computer and then verified the accuracy of each transcript by listening to the interviews audio files while looking at the electronic versions of transcripts on her computer. After the researcher verified the accuracy of each electronic transcript, she saved the revised versions of them on her computer in the case study database. The researcher then printed a hard copy of each of the 10 transcripts.

This researcher adhered to Merriam (2009) and Yin's (2014) stages of analysis in a multiple-case study. These two stages included the within-case and the cross-case analyses. During the within-case stage of the data analysis, the researcher, while keeping her research questions in mind, carefully read each participant's responses to the brief e-mail questionnaire, vignettes reflecting observations of participants' classrooms during instructional sessions, and participants' interview transcripts multiple times (Merriam, 2009). The purpose of immersing herself in reading of these data multiple times was to identify sentences and phrases from the data that represented emergent themes related to each case first. At this stage in the data analysis process, the researcher began coding which was "a progressive process of sorting and defining and defining and sorting those scraps of collected data...that are applicable to your research purpose and question" (Glesne, 2006, p. 152). The researcher highlighted statements, words, or phrases that she felt were particularly salient or revealing about this participant and his/her experiences teaching first-year general education courses to ELLs. The researcher also made multiple margin notes writing down her thoughts related to the identified patterns on specific

pages of these documents and attached Post-it Notes with the names of initial codes. The purpose of the within-case data analysis was to develop a better understanding of and connection with each case-participant.

After this preliminary stage in the within-case data analysis process, the researcher began marking any statements that appeared to relate to broad categories of teaching disciplines, dispositions about teaching, expert knowledge in disciplines, pedagogy and curriculum, and ELLs. The researcher coded manually by using different colored highlighters for different codes, i.e. yellow for teaching disciplines, blue for dispositions about teaching, orange for expert knowledge, green for pedagogy and curriculum, and red for ELLs. The researcher also used margin notes to clarify and reduce initial broad categories. At this stage in the data analysis process, the researcher began using a large poster paper on which she wrote down the broad categories she identified by analyzing each case by looking at all sources of data.

It appears almost impossible to separate the within-case stage from the cross-case stage in the data analysis process (Yin, 2014). Although the researcher's focus during the within-case stage in the data analysis was not on capturing recurrent patterns across five cases, the researcher did notice the emergent cross-case themes during this stage in the data analysis and recorded them in the Word document labeled *Mapping of Emergent Cross-Case Themes*. This document was stored on her computer. As the researcher continued analyzing the data, she looked for similarities and differences among cases (Miles, Huberman, & Saldana, 2014), further refined six major cross-case themes, and identified their corresponding sub-themes. The analysis of multiple sources of data revealed an overarching theme of passion, devotion, and commitment of participants to the subject matter of their disciplines as well as to teaching it to students.

Regarding presenting the results of multiple-case studies, Yin (2014) suggests two techniques. A multiple-case study report can consist of single individual cases that can be presented as separate chapters or sections and an additional section reflecting the results of the cross-case analysis (Yin, 2014). The second way to present the findings in the multiple-case study report is in a form of a cross-case analysis in which each separate section is devoted to a specific cross-case theme, and the data “from individual cases would be dispersed throughout each section” (Yin, 2014, p. 186). Within this format, the summary information about individual cases may not be included (Yin, 2014). When presenting findings of the present study in Part II of Chapter IV, the researcher followed the multiple-case study format in which the report about findings was presented as a cross-case analysis. Each section in Part II of Chapter IV presenting the findings of the present study is devoted to a separate cross-case theme. Data from individual cases were used in Part II of Chapter IV to support the findings of the cross-case analysis. The summary section about individual cases was not included in this multiple-case study report.

Summary

The purpose of this qualitative multiple-case study (Merriam, 2009; Stake, 1995; Yin, 2014) was to explore, understand, and describe the experiences of five full-time content-area faculty members when teaching first-year general education courses in which ELLs were enrolled at the university located in South Florida. The analysis of the multiple sources of data revealed an overarching theme of passion, devotion, and commitment of participants to the subject matter of their disciplines as well as to teaching it to all students including ELLs.

Conclusion

The methodological description, rationale, and background were provided in Chapter III. Detailed procedures for participants' recruitment, data collection, and data analysis were also a focus of this chapter. Chapter IV presents the findings of the present study.

CHAPTER IV

RESULTS

The purpose of this study was to explore, understand, and describe the experiences of full-time content-area faculty when teaching first-year general education courses in university classrooms in which ELLs were enrolled. Five full-time content-area faculty members teaching first-year general education courses at the university level were asked to share their experiences and provide their insights regarding teaching ELLs in first-year general education classrooms.

This chapter presents findings obtained from participants' responses to a brief e-mail questionnaire, five vignettes reflecting observations of participants' classrooms during instructional sessions, and two rounds of one-to-one digitally recorded interviews with five full-time university faculty members teaching first-year general education courses in which ELLs were enrolled. The research question that guided the study was: "How do full-time university content-area faculty members describe their experiences of teaching first-year general education courses in which ELLs are enrolled?"

The following sub-questions related to teaching ELLs were also posed to expand the research question:

1. What scaffolding means do full-time content area faculty members utilize to mediate discipline-specific content of the general education courses to ELLs in university classrooms?
2. What are full-time content-area faculty members' perceptions regarding the role subject matter knowledge, pedagogical content knowledge, and curricular knowledge played in their instructional practices when teaching undergraduate ELLs enrolled in first-year general education courses?

In order to present the results of the data analysis in a meaningful way, the researcher divided Chapter IV into two parts. In Part I of Chapter IV, the researcher included introductions of each participant based on his/her responses to a brief e-mail questionnaire and excerpts from the one-to-one interviews with participants and five vignettes reflecting the researcher's observations of participants' classrooms during instructional sessions.

When presenting findings of the present study in Part II of Chapter IV, the researcher followed the multiple-case study format in which the report about findings is presented as a cross-case analysis (Yin, 2014). Each section in Part II of Chapter IV is devoted to a separate cross-case theme. Data from individual cases are included into each section describing a specific cross-case theme. The summary section about individual cases is not included in this multiple-case study report.

Expect the “Unexpected”

Prior to presenting the descriptions of participants in Part I of Chapter IV and the results of the cross-case analysis in Part II of Chapter IV, the researcher decided to share her thoughts about the issue of unexpected findings in qualitative research in general and in this study in particular. The reason is that, although the focus of this dissertation was on understanding the university content-area faculty experiences teaching first-year general education courses to ELLs, the findings of the study yielded only a few cross-case themes related specifically to ELLs. Hence, the readers of this study may assume that this dissertation generated some unexpected results that are not focused on ELLs.

Qualitative research is a discovery of human experiences as they are lived and perceived by participants (Krefting, 1991). The job of the researcher is to enter the world of multiple realities of participants and to describe these realities revealed by participants from their vantage

point of view. Because qualitative research emphasizes the uniqueness of the human situation, the variation in experiences is expected (Field & Morse, 1985). Therefore, qualitative researchers expect “unexpected” findings to emerge. From that perspective, the present study did yield some unexpected findings that are divergent from the findings of other studies conducted on the same topic but in K-12 settings.

The human situation as revealed by participants in this study was that participants did not view their experiences of teaching general education classes to undergraduate ELLs separated from the experiences of teaching first-year general education courses to all students. As the results of the data analysis showed, participants perceived all students enrolled in their discipline-specific university courses as non-native speakers of the language of their disciplines. From the participants’ points of view, all students – not only ELLs – enrolled in their first-year general education courses were non-native speakers of biology, non-native speakers of communications, non-native speakers of psychology, and non-native speakers of theology. Therefore, all students – non-native speakers of languages of discipline-specific courses – experienced challenges when acquiring the content of discipline-specific courses in university classrooms.

The major cross-case themes that emerged in this study reflect specific phases in participants’ teaching journeys as they became experts in their disciplines enabling participants to connect the content – language – of the disciplines to all students including ELLs enrolled in their general education classrooms. These stages or phases in participants’ development as university content-area teachers are: Learning How to Teach Disciplines; Developing Personal Dispositions about Teaching All Students; Becoming Experts in Disciplines; Considering the Role of the Subject Matter, Curriculum, and Pedagogy in Teaching Disciplines; Having ELLs in

the General Education Content-Area Classrooms; and Engaging ELLs with the Language of the Discipline. All cross-case themes are interconnected and reflect participants' experiences teaching the content of discipline-specific courses to all students. Therefore, all major cross-case themes representing participants' experiences teaching first-year general education courses at the university level are also related to ELLs in this study.

Part I: Meet the Participants

Introductions of each participant based on his/her responses to a brief e-mail questionnaire and excerpts from one-to-one digitally recorded interviews are presented in Part I of Chapter IV. Each introduction is preceded by a direct quote that indicates participants' perceptions regarding their teaching roles in general education classrooms. Any data used in brief introductions that could potentially identify participants were anonymized.

In addition to introductions of participants, the researcher also included vignettes reflecting observations of participants' classroom during instructional sessions in Part I of Chapter IV. The researcher anonymized any data that could jeopardize participants' confidentiality in these vignettes. In order to describe activities that occurred during observations of participants' classrooms, the researcher decided to choose the present tense. The use of the present tense allows the researcher to show to the reader what she "saw and heard" during observations. The use of the first person "I" enables the researcher to incorporate her thoughts and reflections as to how certain activities and/or interactions she observed are related to ELLs and explain this relevance to the readers.

One of the five vignettes is written in the form of a dialogue between a participant and his students because writing a vignette in such a manner allowed the researcher to capture the most prominent characteristic of this particular observation. Although all participants confirmed that

they had ELLs enrolled in sections of general education courses they taught at the time the present study was conducted, the researcher is not aware of whether there were any ELLs present on the days when observations of participants' classrooms were conducted.

All five participants who participated in this research study are full-time content-area faculty members teaching first-year general education courses at the research site. Four out of five participants hold doctoral degrees in their specific disciplines such as biology, psychology, and theology. One participant possesses a master's degree in the area of communications. Table 3 provides brief demographic information of the participants.

Table 3

Demographics of Participants

Pseudonym	Years of teaching in higher education	Discipline	Degree
Barbara	9	Biology	PhD
Eric	31	Biology	PhD
Istvan	37	Psychology	PhD
Jocelyn	10	Communications	Master's
Thomas	26	Theology	PhD

Barbara: The Social Facilitator and the Older Sister

I am a bit like a social facilitator [because] what I realize is that if [students] are isolated, they do not do as well as when they socialize as a group. In my class, there is plenty of time when I am not talking, but they are doing something with their hands and chatting or they are asking questions. Sometimes, I feel like I am an older sister, someone who can just tell them what they should be doing now. It [requires] a lot of nurturing for freshmen.

Background information. Barbara has been teaching first-year general education courses in biology at this institution only for a decade, since the time she was hired. She also worked as a teaching assistant while working on her doctoral dissertation, and she tutored

students in science in the past. When asked why she chose this discipline or content area, Barbara stated:

I chose Biology (PhD) (Biochemistry, B.S.) because I wanted to gain a fundamental understanding of living organisms and processes, especially at the molecular level. I chose to become a professor because I enjoy teaching biology and sharing my excitement of science.

Even though Barbara did not receive any formal training in pedagogy, she had experiences of tutoring at an early age when she was only 13-14 years old. She said:

I was asked to tutor kids a few years younger than me who had difficulties with math. I was very good at explaining, especially sciences. Things that people would struggle with and do not see, I was kind of able to simplify [these things] or change how they looked and tried to help them out.

Barbara is of Slovak descent and is a multilingual speaker. Her parents emigrated from Slovakia, and she was born in the United States. In the United States, her father, a chemical engineer, was doing some adjunct work on a temporary visa. He then later started looking for full-time employment and accepted a position as a professor of chemical engineering outside of the United States in a French-speaking environment. Therefore, Barbara grew up speaking Slovak in her household and also learned to speak and read in French. In addition, Barbara also started learning English: “Pretty soon, by the fourth grade, I knew all TV channels and music in English was ubiquitous, so I learned English.” Regarding learning English, she added: “Sometimes, the textbooks were cheaper in English, and so it was an easy switch from one language (French) to another.”

When I asked Barbara which of the three languages (Slovak, French, or English) she considers her first language, she said:

That's a tough one. The first one I learned [...] was [Slovak], but the first one I mastered was not Slovak. I can't even say I mastered Slovak. So it's got to be French. And if you ask me which one I am the most comfortable using now, even with the accent, it's English.

However, she also said:

Throw me back into a French speaking environment, and it would not take me long to gain it. I have definitely lost some vocabulary, and if you ask me to write, I would not write in as much erudite fashion as I used to.

Barbara shared an interesting observation about the language of biology and her experiences when studying biology in French as an undergraduate student. Apparently, many biology terms and technical jargon is described or labeled after original English names of these terms. Therefore, she did not have to translate these terms from French to English when she studied biology in an English-speaking environment in the United States. Barbara noted, however, that her writing skills were “a little bit rusty” at the beginning of her studies. She managed to enhance her academic writing fairly quickly as she was an avid newspaper reader and because English was her third language, the language transfer was faster. Barbara provided an example of how she utilizes her knowledge of multiple languages, especially French, in her teaching approach:

When you learn French, what you learn is rules, and then you learn many rules and then you learn the rules for exceptions, and then you learn the exceptions to the exceptions. So

it's a bit how I approach teaching too; I tell them this is the big picture, and these are the general rules.

Barbara completed her undergraduate studies in biology at a university outside of the United States. She obtained both her master of sciences degree in biology and a doctoral degree in biology from an Ivy League higher education institution in the Northeastern part of the United States.

Barbara's biology lab classroom. As I am walking into the science lab classroom in the morning before class starts, I hear student voices inside. "Wow," I am thinking to myself. "Some students have already arrived." Inside the room, there is a young female preparing material for the class, and I wonder who she is. She is young, but it is clear that she is not a student in this class. "Oh, she must be Barbara's research assistant," I think. I will later find out that she is indeed Barbara's assistant. Two or three students are at the desks chatting to each other. In the meantime, more students are walking in. It is obvious that each student has a designated desk and a seat at this desk. I look around to identify a place where I can sit so that I will not interrupt the class, and Barbara's research assistant invites me to sit at her desk by the window. "This is good," I think to myself. "I will not bother anyone, and I will be close enough to the teacher's desk to observe everything." I am about to say "thank you" to her as I hear Barbara's voice in the hallway.

Barbara quickly steps in the room and says "hello" to everyone. Barbara speaks in a soft voice, and her subtle French accent makes its tone warm and welcoming. I feel that maybe it is her accent or the pitch of her voice or a combination of both that immediately creates an atmosphere of coziness and relaxation. I think about ELLs who are enrolled in her class and about the importance of creating a welcoming environment for these students who often feel

isolated in classrooms in which they take courses along with NES. She looks energetic and has a smile on her face. She quickly approaches her desk and announces the class agenda by saying that she will take attendance first, take care of “some matters,” and then the class will finish the experiment.

The class homework today is a take-home quiz that students are supposed to submit in class. Barbara reminds students to write their names on each page of their quizzes and hand them in to her. She also adds that students will have until 4 p.m. today to submit their quizzes. When I hear about the extension of a deadline, I keep thinking that students are given an additional opportunity to submit the assignment. I think it is very important because many of them work and have to manage work and school responsibilities, so this strategy obviously benefits all students. This strategy is even more beneficial for ELLs who often need more time to complete their assignments. One student approaches her desk and explains why he is not able to submit a quiz now. Barbara listens attentively and confirms with the student that he will turn in his quiz at 4 p.m. While Barbara takes attendance and records the quiz submissions on her computer, she is making a funny analogy about submitting a quiz after the deadline and filing of taxes to the IRS late. “You know what happens when you submit your IRS taxes late, don’t you? She pauses and looks at the class. “You will pay more.” Students react to her joke by giggling and looking at each other.

After attendance and homework submissions have been recorded, Barbara starts returning the at-home quizzes that were due last class. She praises her research assistant, and says that the assistant has done an outstanding job on grading the quizzes and suggests to students to refer all questions they may have about the quizzes to her. Barbara also adds that if students have any doubts or questions after speaking to the research assistant, then she will address these concerns.

She encourages her students and says: “You should be getting better now!” “If my research assistant recommended for you to go to the Writing Center, you need to do it,” continues Barbara. She emphasizes the importance of communicating well in biology and expressing thoughts clearly in writing. “If you understand what you have written, but the research assistant fails to understand, you did not convey your message appropriately,” says Barbara while looking at her students. “This is so important for ELLs,” I am thinking to myself. Many ELLs are not aware that there are academic support services available at the university where they can get help with writing, one of the most important aspects of the language of biology. The purpose of Barbara’s comment about the importance of communicating clearly in biology through writing is to attract ELLs’ attention to this important skill – writing – in the context of biology.

Right after that, Barbara reminds students what they had done in class last week and mentions that they had two test tubes. She goes to the blackboard and writes: *arabinose* and *beta-lactose*. The research assistant brings the tubes, and I detect a very unusual pungent smell emanating from these tubes. I look around to see if students have experienced it too, and I notice that students chuckle and look at each other. Barbara moves around the room and notices students’ reaction to the smell. She laughs and says: “It is the smell of success. Remember that these bacteria come from your guts.” Barbara then invites students to look at the two plates they have in front of them on each desk and asks students to find out what is growing. “What do you find is growing? These are colonies. There are big and small colonies. When you have a lot of colonies, it means that the bacteria produced enzymes. You have to dot each colony.”

Barbara states that there are certain abbreviations to record the number of colonies such as TMTC – too many to count and TNTC – too numerous to count. She wants to know if students remember these acronyms and asks: “Do you recall these acronyms?” Students are told

to count the number of colonies because they will need to report them in their lab reports. Barbara also stipulates that students must compare their number of colonies to numbers of other groups. She says: “Such a comparison is what makes it a cool discussion in science and also provides an explanation. If we have more colonies than other groups do is that because we, probably, left them longer.” While students are counting the colonies, Barbara moves around the room and talks briefly to each group at their desks. She reminds them about their writing and specifically about the use of the first person and the use of the passive voice in the lab reports. “Try to avoid the use of the first person and make it a passive voice. It is called a scientific voice – to emphasize the results, but not who did it. You will get the glory – don’t worry about it,” laughs Barbara. “Another reference to writing in biology beneficial to ELLs,” I am making a note in my notepad, “is repeating salient features of one of the most effective aspects of the language of biology in order to make ELLs aware of these specific features.”

When students complete their calculations, Barbara moves to the blackboard ready to write down numbers of colonies from each group of students. As each group shouts out its numbers, Barbara comments on the variability among these numbers and answers the question from one of the students by saying that “it means how long you leave the plates on ice.” She further elaborates and acknowledges that “numbers matter a lot in science and that there are different sources of variability in science.” Barbara once again draws the students’ attention to the lab report they are required to write and indicates that the students will also need to report the transformational efficiency and that they need to calculate it. She stands at the blackboard and directs students to write down the process of calculating the transformational efficiency. She begins writing the calculation formula on the blackboard and warns students that they need to be

careful when doing math. When the calculation is completed, one of the students asks what the number means, and Barbara explains that “the larger the number, the more efficient it is.”

Barbara then moves to the next phase in her lesson by directing students to look at the plates that they have used to calculate the number of colonies using an ultraviolet light. Barbara’s research assistant distributes to all students some pens that look like mini-flashlights. The purpose of this activity is to look at both plates under the ultraviolet light and observe the plate with colonies that glow and the one in which they do not glow. Students are also told to take a picture of their best plate in which the largest number of colonies glows. I am intrigued as to how these plates will look like under the ultraviolet light, so I go to each table to see the plates. I am fascinated with the experiment and so are the students. I hear their “wows” when they look at each group’s plates trying to identify which group has the best plate with many colonies that glow and also when they compare photos of those plates that they have taken. I, personally, like the picture that shows both plates, the one with colonies that glow and the one in which the colonies do not glow. As students are engaged in this activity, Barbara makes sure to stop by each table and explain the results of this experiment to each group of students. She also praises members of the group who have taken the best shot with two plates. “Another strategy related directly to ELLs,” I am writing in my notepad. Barbara makes sure to approach every group and ask students if they have any questions

Barbara proceeds to the next section in her lecture and announces that she wants to chat about biotechnology. “What do you think bioengineering is?” she poses a question to students. One of them quickly responds, “Put genes into cells.” Barbara nods and adds: “You need to acknowledge DNA, and we can calculate the process.” She mentions to students that she will show them some short video clips on biotechnology to start the discussion. “Yet another strategy

related to ELLs,” I pause my writing. “She presents the content of the course through various media, including video.” The first clip is about genetically-modified food and clothes. After students finish watching the clip, Barbara asks a provocative question: “Would you object to wearing a T-shirt made from genetically-modified cotton?” Students reply, “Well, not really.” Barbara agrees and shifts the topic to food. “What we eat, however, is very different. It can be about some philosophy, beliefs, etc., so genetically-modified food can upset many people,” explains Barbara. The subject switches to the discussion about insects, plants, and animals in the context of genetic engineering. Barbara talks about the evolution of insects and focuses on the fact that plants are the most genetically-modified food. “As for animals,” she goes on to explain, “There is a lot of doping going on, but not genetic engineering.”

Students seem very interested in the topic and make a remark that in Europe all genetically-modified food is labeled. Barbara quickly elaborates on the comment and says: “In the United States, we do not label it unless you eat organic products. However, everybody needs to know what he or she eats because of allergies.” She continues her mini-lecture on biotechnology and shows two more clips, one about potatoes that can be used to treat Hepatitis B and another one about how chemicals from explosives have been used to modify the plants – tobacco – genetically. Students watch the clips carefully, obviously engaged with the subject and a follow-up discussion. Barbara finishes this part of her lesson by showing students two very colorful Power Point slides that focus on the comparison and contrast of cells and viruses.

Jocelyn: The Coach

In class, I go by Coach Jocelyn, not Professor Jocelyn. When I was doing my master’s degree, as a part of my graduate teaching assistantship, I helped my professor in some research comparing the sports domain to the business domain. Exploring the idea of coaching fascinated me. The origin of the word “coach” comes from ‘stagecoach,’ a vehicle or a vessel that transports a person and his or her stuff from Point A to Point B. I thought it was a beautiful metaphor. On the very first day of class, I ask my students to

call me Coach Jocelyn, and I explain to them that I coach speech. I feel that a coach concept is closer to students. It is a different type of a relationship than that of a professor.

Background information. Born in Saint-Louis, Jocelyn grew up in a very small town in northwestern Idaho. Her undergraduate major was in business, and she received her master's degree in organizational communication, learning, and design. She is a NES, and when I asked her whether she knew any foreign languages, she answered with an anecdote. "What do you call a person who knows three languages? she asked. "Trilingual," I responded. "Two languages?" she asked. "Bilingual," I responded. "And what would you call a person who knows only one language? she continued. "Well, a monolingual, of course," I started laughing. "No, American!" she exclaimed.

Jocelyn said she had never thought about teaching public speaking when she was young. However, as she admits now: "It makes perfect sense." She was a State and District competitor in speech and debate in high school. Her accomplishments led her to be selected at only 19 years of age to become a national speaker in the Anti-Drug Campaign. She was called upon as a consultant to various organizations such as the Office of Substance Abuse and Prevention, the National Prevention Program, and Nancy Reagan's "Just Say No Campaign." During that time, Jocelyn served as National Student Director of Campuses without Drugs, later to be renamed Positive Moves. These early experiences paved her path towards her future career in public speaking and communications.

Jocelyn began her teaching career at the university where this study was conducted over a decade ago, teaching speech courses as an adjunct instructor. She was later offered a full-time instructor position in the same department in which she currently works. However, Jocelyn's teaching journey started long before she became employed by this institution. She designed,

managed, and taught courses using an interactive video system for adult learners in the environmental industry, specifically teaching asbestos, lead-based paint, and mold abatement. Many of the workers in this industry were primarily from Mexico, and supervising Spanish-speaking instructors presented many challenges. Part of Jocelyn's responsibilities was to ensure that instructors completed all of the interactions and activities and that all students completed required contact hours. Many of the Mexican instructors and students tried to leave early "because this was a huge cultural thing."

Even though Jocelyn did not have any formal training in pedagogy, she shared she was familiar with instructional design as a result of working side-by-side with a content development expert who taught her "to keep the objectives directly correlated with the outcome...and make it about the learner learning in the most effective way." Her love for teaching grew, and she left the environmental industry to begin teaching television production, speech, and debate in a high school setting and later, after completing her master's degree, at the local college.

Jocelyn's *Fundamentals of Speech* classroom.

- Student 1: I am so nervous, oh, my god!
Student 2: You should just go first!
Student 1: I timed myself, but I am going over eight minutes!!! Should I just go now?
Student 2: But were you scheduled?
Student 1: Yes, I was scheduled on Friday, but I had an emergency. So what do we need to submit? The rough draft?
Student 2: No, it's just the final draft and the checklist.
Student 1: Should I just set up? Can you please pass these out for me? OMG, I am so nervous! Does she give you a grade just right after?
Student 2: No.
Student 1: If you know how to work it (a computer), can you just help me? My hands are so sweaty!

This dialogue is taking place between two girls, one who is about to present her speech.

Her name is Paula. There are three students in the classroom. It is about five minutes prior to the

class start time. Students are engaged in their conversation and are sharing their fears about the upcoming presentation. More students are walking in.

Yesterday, I was practicing like for four hours. I read the speech like 14 times before I began practicing. I don't know; I am just so nervous! Everybody is doing so well, so I just don't want to be like...the worst one.

On that note, Jocelyn quickly walks in, smiling. She holds a tray with various treats. "Everybody gets a cookie," she says. "Today, we have a couple of speeches to present. The rest of you: 'I need to grab your listening exercises (SWOT analyses). I am going to give them to the Dean.'" When a student hands in his or her listening exercise, Jocelyn signs off on his or her schedule. Jocelyn is making sure that she does not miss anybody and asks: "Do you have yours? Anybody else?" Jocelyn moves to the desk at the back of the room facing the board. She then gives her undivided attention to Paula. Paula turns off the light, and the presentation begins. The room is silent as if everyone is waiting for something to happen. I am staring at students to see how they react, but it seems to me that this is part of their usual class routine. Students are looking at the female presenter, Paula, cautiously. The class atmosphere is welcoming, but Paula's nervousness permeates the room. As I look at Paula, I suddenly recall Jocelyn's comment she made during our interview that "she teaches one of the scariest things people fear the most – public speaking." At this moment, I completely understand how Paula feels as I observe firsthand what a terrifying experience this is for her.

Paula begins her speech by showing first a clip from the movie *This is 40* with actors Paul Rudd and Leslie Mann. After showing the clip, Paula turns on the lights, looks at each peer, and asks her audience a series of questions: "Do you know anyone who is unhappily married? Why do you think marriages fail? What kind of marriage would you want?" The Power Point

presentation goes on, and Paula invites her fellow-classmates to interact with her and her visuals as she presents. During all this time, Jocelyn is at her desk quickly jotting down notes on the student's written transcript and a rubric. She does not interrupt the presentation, but carefully watches it and writes at the same time. Looking at Jocelyn, I am fascinated with how she is connected with the presenter. It is almost like if she is holding an invisible thread in her hands that is also attached to the student.

Paula narrates a story about her friends Julia and Brandon's failed marriage as a prelude to the next point, "Signs of a Failed Marriage." Paula engages the audience as she highlights key main points from the slide: a lack of respect, an unfaithful spouse, and a lack of communication. Paula then proceeds to the next point "Arranged and Social Marriages" and explains that these marriages are characterized by low divorce rates and low expectations. Paula is wrapping up her speech and makes her final point by discussing the strategies couples may choose to use to keep and maintain happy and healthy marriages and by sharing a story of her parents who have been happily married for 25 years. Paula then asks students to review, re-enforcing the key points of her speech by asking the following question: "Can anyone tell me an advantage of a happy marriage?" One of the students responds correctly, and Paula throws him a candy as an incentive. Paula finishes her speech and presentation by asking students to fill out the handouts she distributed to everyone at the beginning of her speech.

Jocelyn thanks Paula for her presentation and asks students whether any of them have any comments, suggestions, and/or recommendations regarding Paula's speech. Students like the presentation and the topic, so the majority of them praise Paula and offer accolades for her outstanding job. Jocelyn supports their assessment of Paula's speech, but she also provides very specific feedback regarding the speech delivery:

What do you do if you go over time? Summarize! Trust the audience that they will read faster than you do. Give them time to read the content on your slide. You don't have to cover EVERY point of your research. Then just emphasize the two points you wish to highlight. You made a 27 percent eye contact with your audience, but you should have a 50-60 percent eye contact. Read less, connect more. You smiled more towards the end of your speech, but at the beginning you seemed stressed. Relax. Try to create that connection you attained at the end closer to the beginning.

Another student stands up and is ready to deliver his speech about negotiation. The student-presenter is evidently nervous. He cannot stand still and constantly takes little tiny steps back and forth. As a preface to his speech, he shows a clip about investments. He talks to students about the concept of negotiation, how people can use negotiation to their own benefit, and discusses an acronym BATNA – B-Best, A-Alternative, T-to, N-Negotiate, A-Agreement. The student uses note cards when delivering his speech. Jocelyn listens carefully while also making notes on the student's written transcript. At the end of the presentation, she praises the student-presenter for his work and, once again, makes very specific comments about the delivery of the speech:

It would have been great if you provided a Conclusion. It just ended. Remember to review your key points with your audience. You cannot rely solely on your note cards; you must know your information. There is some humor in your speech that your audience cannot accept (it may be offensive). Be careful. Consider your audience – avoid potentially offensive content next time.

There is one more student scheduled to present on that day, but it takes her a long time to set up and the class is about to end. Therefore, Jocelyn decides to postpone her presentation until

the next class meeting so that the student will have an adequate amount of time to present.

Students approach Jocelyn and ask her various questions about the next week assignments, the due dates, and some other important matters.

As I was taking field notes during this observation of Jocelyn's classroom, I kept thinking to myself how well organized and structured her students' presentations were in spite of the fact that Jocelyn pointed out some flaws when providing feedback. What captured my attention was feedback Jocelyn gave to each student and how such type of feedback was beneficial to ELLs. Not only had she pointed out specific items in students' presentations that could have been done more effectively, e.g. using summaries, but she also provided this feedback in an encouraging manner making students feel better about their work, inspiring and motivating them try to perform better next time they deliver a speech. Speech classes in the majority of cases present a terrifying experience for all students as evidenced by the dialogue at the beginning of the session between two students enrolled in Jocelyn's class. For ELLs, however, presenting in front of others is even more frightening due to their accents and/or unfamiliarity with how to prepare a speech and deliver it. Feedback that emphasizes the areas ELLs need to work on when presenting speeches and the manner in which feedback is delivered is crucial to ELLs' academic success in communications classrooms.

Istvan: The Interpreter

I have to really be a conduit for them. I have to be a tunnel or the way that the information from a book in a language that is not their native language or half their native language gets through me into [students], and they have to be able to assimilate it. I am, I am an interpreter. This is my role. I have to take the information and interpret it for them. I am not a translator; there is a difference. It is really my job to get them to understand it. If I have to make a joke, if I have to give another example, if I have to sit with them because they still don't get it, or whatever it takes, it is my job. I am not being a good interpreter if they do not understand.

Background information. Istvan grew up in upstate New York and completed his undergraduate studies in psychology at a small college in Massachusetts, the only school in the United States that Sigmund Freud was invited to visit. Istvan mentioned that he originally wanted to major in romance languages, but he fell in love with psychology at this small college. After completing his undergraduate studies, Istvan returned back to his home state and completed both a master's degree in psychology and a doctoral degree in psychology at a state university. He specialized in cognitive studies with a concentration in learning, memory, perception, and creative thinking.

After the completion of his doctoral studies with the PhD in psychology, he started looking for a job and saw an advertisement in the newspaper that there was a faculty position available at the university which is the research site for this study. The department of psychology there was very small and consisted of only one other person at that time, so there was a need for a junior faculty member. He applied for the job and was hired. As Istvan added laughing: "I was single, and I needed the money." His initial contract was only for one year, but it was later extended. Istvan felt comfortable at a small school, and he liked the small size of the classes at that time, only 10 students in a class. As he said: "There was really no reason for me to leave, and one year comes to the next, to the next, and this is how 37 years go by. This has been my only job. This is it. I earned my PhD. I came here and never left to go anywhere else."

Istvan's psychology classroom. I am slowly approaching the room in which Istvan's class will be held. He is not there yet, but there are already some students inside the classroom. It is about 10 minutes before the class start time. I look around so that I can better see how the classroom looks and hear Istvan coming in. As always, he quickly walks inside the classroom looking enthusiastic with a big smile and begins the class immediately without any pause. He

greet students and distributes a handout labeled *Research Opportunity* to them. I also get one. The handout provides students with an opportunity to earn one research credit in psychology by completing a 30-minute questionnaire as part of participating in a research study.

As students look at the handout, Istvan asks them if they know how many research credits they need to take. Some students do know the answer and respond: “Five.” Istvan continues checking students’ knowledge by posing a series of questions: “When does the semester end?” “When is your final?” “Where is it?” “Have you registered for the spring semester?” It is obvious that students are familiar with this routine because they manage to answer almost all of Istvan’s questions. “If you did not register yet, go and see your advisor,” continues Istvan. “This university uses a ‘first come, first serve’ system.” “Did you all receive a handout?” questions Istvan. As I hear Istvan’s comments regarding important dates, registration, and advising, I am thinking about ELLs. Although many first-year undergraduate students struggle during their first year at the university trying to adapt to college life and learning how to prioritize and manage time, ELLs experience even more challenges during their first college year. A lack of adequate language proficiency coupled with their unfamiliarity with the new culture often precludes ELLs from asking questions and/or seeking help. Reminding ELLs about important deadlines in class is an excellent and an effective way to provide such help to these students.

Istvan walks around the room while asking these questions and listening to students’ responses and distributes another handout to all of them. This other one-page handout is entitled *Freud’s Stages of Psychosexual Development*. It briefly outlines Freud’s theory about psychosexual development in a paragraph form. There is also a table on the handout with four different columns: Stage, Ages, Sub stage, and Conflict. As I look at the handout, I think to myself that this is a great tool for a review before the final exam or a test. As this thought crosses

my mind, I hear Istvan's question. "And when Daddy gives you a handout, what does that mean?" asks Istvan with a laugh and with a husky voice. I did not expect this, so I immediately look around the room trying to notice how students will react to the comment. They laugh and look at each other, but it is clear that they have heard this change in the pitch of his voice before. Some students respond that the material on the handout will be on their final exam. Istvan nods approvingly and says, "Yes, you will definitely see it on the final exam."

The lesson progresses to another phase: a review of the previously discussed material. "Whose stage theory did we talk about on Monday?" he asks. Students do not answer fast enough, and Istvan pushes them. "Come on!!!" he exclaims, and it seems like he looks at each student around the room. No response. Istvan stares at them in sort of disbelief that they do not know the answer. "Piaget's theory," he says. Immediately after quickly assessing what students can recall from the previous sessions, Istvan begins his discussion about Freud. He provides students with some autobiographical details about Freud's life and says that "[Freud] was a genius and the first person to discuss the personality development and invent psychotherapy." Istvan again probes students' previous background knowledge and questions them if they remember the case of Anna O., a patient of Freud's colleague, John Breuer, who suffered from traumatic hysteria. Istvan explains that Freud developed his interest in this impairment while studying in Paris under a famous psychiatrist Jean Charcot.

I am fascinated at the way Istvan presents the information about this case to students. It feels as if he is a story-teller, and the whole class, including me, is part of an audience in a theatre. I, honestly, forget that this is a class that I am observing. I put my pen away and just listen to Istvan telling the story of Anna O. Once again, I am thinking about ELLs enrolled in his class at that moment. One of the biggest obstacles that ELLs face when acquiring the content of

discipline-specific courses is low levels of engagement and motivation to learn due to a lack of language proficiency. Connecting these students with the language of the discipline, hence, becomes a challenge for content-area faculty teaching discipline-specific courses. “This is not the case in this classroom,” I am “talking” to myself. Istvan talks slowly and then fast, he moves around the room, he looks at each student in the class, his voice changes as the story unfolds, and he gesticulates with his hands. During his “performance,” a student enters the class. Istvan addresses her in Hungarian; she responds to him in Hungarian too and quickly proceeds to her seat. I notice that instead of actually writing down observation notes, I scribble the following comment in my notebook, “I cannot take notes while listening in an attempt not to miss Istvan’s single word, fail to notice the change in the pitch of his voice, and overlook any gesture he makes to accentuate and emphasize the information he is delivering to students.”

I think the word “performance” accurately captures what is going on in the classroom. It is not a lecture, not a presentation, not a review, but a brilliantly executed stage performance. Like in a real play, this performance has an intriguing story – Freud’s Theory of Psychosexual Development, a fascinating plot, i.e. how the information is presented to students and the order of its presentation, the main character – Istvan, a dialogue between the character and the audience, a climax when Istvan tells the story of Oedipus as it relates to the Freud’s stages of psychosexual development and Freud’s concept of the Oedipus complex, and a resolution.

Thomas: The Teacher

I am their – I am their teacher, their mentor. I am their professor. [Students] get 26 years of experience of teaching this material to students like them...and they get a lot of enthusiasm in my course. They get a love for the material.

Background information. Thomas has been teaching general education courses in higher education for approximately 30 years, both at the research site and at another university.

He was first introduced to teaching during his doctoral studies at the university where he completed his PhD in theology. He was required to teach general education courses in theology as a requirement of his teaching assistantship. Thomas is originally from Atlanta, Georgia. He lived in Phoenix, Arizona for one year. He later moved to New Mexico for four years and completed two master's degrees.

During our first meeting, Thomas pointed out that his role as an administrator and an “overseer of the curriculum for theology and philosophy continues to be his strongest motivator in teaching first-year general education courses.” Thomas also mentioned that the “trademark” of his department is that undergraduate students must take four general education courses – two in philosophy and two in theology – from his department. Every full-time professor who teaches in the department where Thomas currently works is required to teach the first introductory course in theology or philosophy and the second in this sequence when it is possible. Thomas emphasized that one of the most important things that his department does is that every first-year introductory course is being taught by a full-time faculty member, so these courses are not being viewed as some “leftovers” in comparison to other courses offered by his department. Thomas explained that these courses are the most important courses for full-time faculty to teach. Thomas’s various administrative roles in the university, his direct involvement in the curriculum development, and his close working collaboration with the current dean of his college played a major role in the development of his pedagogical skills.

Thomas’s theology classroom. It is Monday afternoon, and I slowly walk to the second floor where the department in which Thomas teaches is located. Thomas strolls out of his office, notices me, and greets me with “Hi, Olena!” There is only one student sitting on the couch in a small living-room-like area in front of Thomas’s office. She holds a handout in her hands and

carefully goes over her notes. In a few minutes, a couple of other students join her on the couch. These other students also hold some handouts in their hands.

Thomas shows up from his office and says to students: “They LOVE me because they have a quiz in my class every day.” “Don’t you love me? Ha-ha-ha!” He moves towards a small kitchen that is located in the same part of the living-room area. “Are you going to make coffee, Father?” asks one of the girls. “No, I am making tea,” responds Thomas, “but you are welcome to make coffee.” “I have no idea how to make coffee,” continues the female student. “You don’t know how to make coffee?!!! What’s wrong with you?!” says Thomas. “Okay, come over here. I will make some coffee for you,” adds Thomas. “We need to make coffee. We don’t want anyone sleeping in our class.” He laughs. Roger who sits on the couch says: “I wonder who would do that!” As I was observing these interactions between Thomas and his students prior to class, I think about ELLs: “This is the way to break the barrier of formality between a teacher and ELLs who come from different cultures and who are not used to a less formal relationship between a professor and students that exist in this country.”

Thomas begins brewing coffee and then leaves to check whether the conference room in which the class will take place is vacant or not. He comes back and says: “Come on, guys.” We all follow him to a small conference room at the end of the hallway. Inside the room, there is a square-shaped seminar table that occupies almost the entire room. There are eight students in class, and each student has his or her own place at this big seminar table. Once everyone is seated at the table, Thomas distributes handouts with quizzes. One of the students begins writing very fast. Thomas also gives a copy of the quiz to me. There is one essay question on the quiz. It is about a critical correlation between religion and culture. Thomas also distributes study sheets for a Wednesday class. There are three assignments/questions. He does not specify how much

time students have for the quiz, but it looks like students know how much time they are given for the quiz. “Time’s up! Time’s up!” says Thomas. The quiz took approximately five minutes.

“Are you happy to be here? Don’t tell me the truth!” laughs Thomas. “For our next class, you will be reading the introduction to this book, *Terror in the Mind of God*.” “Do you have any printouts?” asks one of the students. “Yes, I will give you some because I know you have some difficulties printing them from Blackboard.” The lesson continues by Thomas posing a series of questions to his students. “Okay, so what’s theology? One of the key pieces in theology is interpretation. What does it interpret?” questions Thomas. “History,” students whisper in response. Thomas continues his questioning and pushes students for more elaboration on the subject. “What are the themes in theology?” he asks. Students respond that the main theme in theology is God. “How is theology interpreting?” Students respond, “Through classics, images, sculptures, rituals, scriptures.”

Thomas further elaborates on this very important concept in theology, i.e. interpretation. He says:

I am not a scripture scholar. But I cannot be a preacher on Sunday morning if I can’t interpret. For example: Jesus is going to separate the sheep from the goats. I have to start interpreting. Who’s going into heaven and who is not? Take Matthew 25: When did you see me naked? One has to start interpreting! What’s the historical importance of this passage?

Thomas continues the discussion about interpretation in theology by pointing out that in the book he assigns students to read for the next class, the author poses a question about religious terrorism and classics. He explains to students that the reasons why people go back to classics over and over again is that people want to pull out the meaning from that reservoir or treasure.

As I listen to Thomas speaking in a loud voice and writing my notes at the same time, I notice that my notes are written in a dialogue form between Thomas and his students. This is why the rest of my description of Thomas's theology classroom is presented as a dialogue between Thomas and his students.

Thomas: If I am going to interpret you or you start interpreting me – a white 57-year old bold man. Think about David Kennedy. What makes him tick? He was in the Operation Cease Fire. In order to interpret him, I have to start looking philosophically. The amazing thing about teaching is what you see isn't what you get! This is an amazing thing about teaching!

Thomas moves to the blackboard and writes the words *culture, religion, and critical correlation*. He reminds students about the four Cs of religion, i.e. culture, creed, code, and ceremony.

Thomas: This is an exercise in interpretation! Why do you think I like to teach you? Because you are culture! This classroom is my laboratory. You are my lab experiment. Who am I culturally? A baby-boomer. What am I in culture? What are you in culture? You don't know? – Generation X, Y, Z. Do you know what a baby boomer is? Come on!

Thomas: Why do you think I like to teach you? First of all, you are not a bunch of white kids from the Midwest.

Students: Because of our personalities.

Thomas: Oh, yes, because they are cute.

Student: I did not say that. How we were brought up.

Thomas: There is more than just diversity to culture. I spent a lot of time in Haiti. Did you know that? What are some other characteristics of a culture? Environment, identity.

Thomas: There are some other issues that are very important. You keep turning to them all the time – rituals. What is a ritual? Rituals are places where you go to when you think something is going on. Basketball game, research lab, church, clubs, malls, my dorm, social media. Looking, looking, searching, searching! You don't think this is your culture? Doesn't it define you as a culture? To what extent? That's why we start interpreting.

Thomas: If you have an iPhone, you are rich. If you have a credit card, you are rich. Are you in college or not? We start interpreting these things.
First of all, we have to say what is culture? Rituals, symbols, identity, language, media. We talked about what's religion already.

Thomas stands up, starts moving, and his moves remind me of dancing moves.

Thomas: What is the critical correlation between culture and religion?
They have equal place in history; they are susceptible to each other; you cannot have one without the other. If culture changes, then religion changes.

Students answer confidently. They clearly know the answers.

Thomas: Why don't some people like theology? I believe what I believe! Don't interpret it!
Just do it, baby!

Thomas raises his voice in a very theatrical manner evidently making an emphasis on this statement. Students laugh and look at each other. Thomas stares at them and asks: "What? Have you heard me preach? Theology does say that these two subjects must relate to each other – religion and culture."

Thomas: What is anachronism? Big word! One of the GRE words!!! Come on!

I stop writing my notes and think to myself: "He teaches vocabulary of the language of his discipline explicitly which is so beneficial to ELLs. They mostly struggle with academic or discipline-specific language when acquiring the content of discipline-specific courses." Students do not seem to know the answer, and Thomas helps them out:

Thomas: You are not up-to-date. You know I have a lot of robes. I sing monk chants.
Should I wear my robe to a Heat game? Should I wear it in class?

Students laugh. Thomas explains what the word *anachronism* means by providing the word's definition: "It's lodged and stuck in the past." He once again raises the tone of his voice to emphasize the point he makes.

One of the students raises her hand and asks Thomas if he has ever heard about a free-will religion. Thomas responds negatively and asks a student to explain what it is. The student

says that a free-will religion implies that a person can do whatever he or she wants and can have any kinds of beliefs. Thomas immediately reacts by saying: “I can just take off my clothes and roll on the table!!!” He and the students laugh. Thomas then goes back to the concept of interpretation in theology:

Thomas: It is not unethical to interpret. How do you interpret? Metaphorically, historically, criticism – who wrote this, where did it start, where was it written – in reference to Matthew 25. Did he say it? Why did he say it? Did he really mean it?

The last ten minutes of Thomas’s lesson were devoted to the discussion of history and facts and the differences between them.

Thomas: Why is it important to distinguish between history and facts? For example, Lenin and Hitler. Who is Lenin? Come on, guys!

Students: We did not learn it in high school.

Thomas: Oh, it is time to learn it now. We are not walking around as ignoramuses here.

He laughs and students laugh with him.

Thomas: These people are classics. Why is it necessary to do history? We must interpret them. It’s not really whether they were good or bad. Some of you love Jesus, right! I love my momma, but I need to interpret her to love her. I need to understand her. What others will say: Just love your mother! But the more you understand, the more you love them! Doing history – start laying down the meanings. Start putting them together. You need to make a decision whether to follow them (classics) or not. This is what theology does!

The class time is over; students stand up and are ready to leave.

Eric: The Facilitator

There is a current phrase out now, a Facilitator. I like that phrase. From my end, I am there to help [students] learn the material. I am teaching the material to them, but...there has to be an effort on the part of a student. I am there to provide facilitation.

Background information. Born and raised in New York City, Eric completed his first two years of studies at a local community college and then transferred to a large state university where he later obtained a bachelor's degree in biology. After graduation, he decided to take some

time off and began working for a company in his home town. As Eric pointed out: “That experience taught me enough to know that I did not want to be in commercial business.”

One of his friends enrolled in a chemistry program at a state university in another state and shared with Eric that there were many teaching assistantships offered in his department and that Eric needed to apply. Eric submitted an application, got accepted, and received a master’s degree in ecology. During his graduate studies on a master’s and a doctoral level, Eric took a total eight semesters in statistics. Eric is a monolingual English speaker who “used to have some skills in Spanish, but lost all of them.”

Eric has been teaching first-year biology courses at the research site for approximately three decades. Prior to that, he taught first-year biology courses during his graduate studies for seven years. The research site was not his first choice of employment after graduation, but as Eric explained: “there was a surplus of individuals with PhDs in biology at the time he was applying for jobs.” There were approximately 170 applicants for the employment opportunity at the university which is the research site for this study when he applied. Eric also admitted that he was not the hiring committee’s first choice.

Eric’s biology classroom. When I approach Eric’s classroom, approximately six students have already arrived and gathered in front of the closed classroom door. It is around 9:45 a.m. on Friday morning, and the class start time is at 10:00 a.m. The door to Eric’s classroom is closed, but students do not knock on it. They are chatting about the Halloween parties they attended the night before. More and more students are arriving. Some of them have their notebooks or binders open, and they are looking at some notes inside. It looks like they are reviewing for a quiz or an exam. Students continue talking, and it is obvious that they know one another very well. In spite of the fact that the door is closed, it looks like Eric is already inside the classroom.

The door opens, and Eric is standing at the door entrance. He greets students and lets them inside the classroom. On each table, except the two in the middle row, there are handouts with quizzes, one handout per desk. The handouts are lined up on tables in a very organized fashion. They all are on the top left corner of the desk. Students proceed to desks, one student at a desk. They know exactly what should be done and what the process is. Eric says: "Begin." He approaches my table and says: "Students will have only five minutes for the quiz." As students are writing, Eric mentions: "If you were circling the answers, please remember that the letter must be written down the line." I pause writing my notes for a second and think that this comment benefits ELLs in that Eric explained and/or paraphrased quiz instructions. Very often ELLs struggle understanding test/exam instructions, and they are afraid to ask the instructor to clarify this information due to a lack of language proficiency. Consequently, they may fail these tests but not because of a lack of knowledge of the course content. He then adds: "We have one minute left." When time elapses, students put their pens down and sit quietly.

"Pick up your books, pick up your clickers!" says Eric. Students stand up and proceed to the entrance of the room where there are books lying on the desk and grab clickers that are on Eric's desk. As I am looking at the screen in front of me, I see a black and a yellow slide that says: "Clicker Check!" Eric begins returning graded quizzes from the previous class session. He addresses each student by his or her first name. He then reviews the clicker procedure. "Select any number from 1 to 5; press the number only once." He then says that "[he] is not happy with the new clicker software that gives [him] trouble." He also mentions: "Next exam is coming up on November 11."

A female student raises her hand. Eric looks at all students and says: "We have a question." It turns out the female student is confused about the due dates of the assignment

posted on Blackboard. Eric asks her to send him an e-mail right after class, and he will clarify the dates. He then begins the class by informing students that if they have eaten a lot of Halloween candy (e.g. five bags of candy), all of the sugar from these candies does not really accumulate in their blood. He says: “Where did the sugar go?” “It goes to fat,” he adds. Eric then continues by making a comment: “If you do not want all this sugar, you need to exercise. Ride a bike, go for a walk, do something!”

He then directs students’ attention to the Power Point slides and says: “If you remember, everything I am telling you now is a review of the past lecture, of what we went over last class.” The title of the slide is *Glucose - NADN has “Reducing Power” has a tendency of giving up electrons and then the same thing repeats again*. There are many technical vocabulary words on the slides such as *oxidized NADN, transmembrane, ubiquinone, dehydrogenase, and cytochrome*. When it comes to the term *ubiquinone*, Eric stops and asks students if they know the origin of the word. As there is no answer, he explains that this term derives from the word *ubiquitous*. I stop writing my notes again and think about how important it is to teach content-specific vocabulary explicitly to ELLs because it represents explicit teaching of English in academic setting or a strategy that was labeled as an effective ELL instructional means in the field of TESOL. I am also thinking about Eric’s use of technology in his classroom, clickers, and the Power Point along with lecturing, as the combination of these is referred in literature as multimodal scaffolding (Brandl, 2007) that is beneficial to ELLs’ acquisition of vocabulary.

From time to time, Eric leaves his desk with the computer on it and approaches the board on which the Power Point presentation is projected. He points to the Power Point slide when he wants to emphasize or clarify a term and/or a concept he is explaining at the moment. Eric then asks a question: “What molecule is the last acceptor of the energy?” “Come on guys, there must

be something on the other end who accepts all this energy.” “No one remembers?” He affords students with some time to think. Since nobody responds, Eric then provides the answer: “It is oxygen.” The next slide is entitled the *Electronic Transport Chain*. Eric talks fast while moving from one slide to the other, but somehow he makes sure to cover all of the important points. After the *Clicker Check* slide pops up on the screen and students are finished with their answers, he always provides the correct answer by saying: “I hope you all pressed 5 which is oxygen.”

Students are listening carefully except the guy in the same row in which I sit. His head is constantly moving down to his desk as if he is falling asleep. It appears as though he either never slept the night before or slept very little. He comes back to life only when it is time to answer using a clicker. The girl in the row behind me was looking at her nails, but the rest of the class was paying attention. Another question from Eric: “What direction is the proton pumping occurring?” No one responds. “Do not just sit there and stare at me,” Eric says jokingly. “From inside to outside.”

Eric proceeds to the next phase in his lesson and introduces the term *chemiosmosis*. “I hope you remember what osmosis is?” “Osmosis is a free water movement...and by adding chemo to osmosis, we get a movement of protons.” Another question, “What does the oxygen turn into at the end of the chain? Come on, Jennifer!” A student answers not very sure if her answer is correct: “Glucose....?” “I think you said “water,” says Eric. “Oh, yes, that’s what I said,” chuckles Jennifer. There is another slide on the screen, and Eric moves on with his lecturing. Some of the Power Point slides have colorful pictures, and some are black and white with some important points listed. Vocabulary terms are boldfaced and underlined.

Eric poses another a question: “What is regulating the glucose breakup?” Think about a pizza shack or a hamburger stand, for example. How do you know that you are not making too

many pizzas or too many hamburgers?” Another Power Point slide is on the screen that contains a variety of new terms that are all critical enzymes – *phosphofructose kinase, pyruvate decarboxylase, citric synthetize*. Eric points to each of the terms on the screen and explains what they mean one-by-one. The last point in his lecture is about other sources of energy besides glucose. Eric asks students: “You know that sometimes when you are hungry, you always say ‘I am starving.’ Well, you are not really starving at that moment. However, when you are not eating for about ten days, then you start ‘cannibalizing’ other chemicals.” “There are some like” – he points to the Power Point slide – “amino acid and fatty acids.” At the end of the class, Eric reminds students about the next class assignments and emphasizes that they should check their syllabi and Blackboard in case they forget what is due and when.

Summary of Part I

Participants’ brief introductions based on their responses to a brief e-mail questionnaire and excerpts from one-to-one interviews with the researcher and five vignettes reflecting the researcher’s observations of participants’ classrooms during instructional sessions were included in Part I of Chapter IV prior to presenting the results of the cross-case data analysis in Part II of Chapter IV. Providing descriptions of participants prior to presenting the results of the cross-case data analysis in Part II of Chapter IV enables readers to familiarize themselves with each participant. Such familiarization facilitates readers’ interpretations and understandings of the findings of the study.

Part II: Cross-Case Data Analysis

When presenting findings of the present study in Part II of Chapter IV, the researcher followed the multiple-case study format in which the report about findings was described as a cross-case analysis. Each section in Part II of Chapter IV presenting the findings of the present

study is devoted to a separate cross-case theme. Data from individual cases were used in Part II of Chapter IV to derive the findings of the cross-case analysis. The summary section about individual cases was not included in this multiple-case study report.

Six major themes emerged from the analysis of data, and each major cross-case theme has corresponding sub-themes. Participants' experiences were presented through descriptions of the cross-case major themes and corresponding sub-themes. These six themes and their corresponding sub-themes, as expressed by the participants in the study, appeared to represent different phases of their teaching journeys during which participants became teachers and experts in their disciplines. These phases or stages are: Learning How to Teach Disciplines; Developing Personal Dispositions about Teaching All Students; Becoming Experts in Disciplines; Considering the Role of the Subject Matter, Curriculum, and Pedagogy in Teaching Disciplines; Having ELLs in the General Education Content-Area Classrooms; and Engaging ELLs with the Language of the Discipline.

All six cross-case themes are interconnected and represent participants' experiences when teaching the content of their disciplines to all students. As no participants in this study possessed any reported formal training in pedagogy and curriculum, they drew on their past experiences as learners and reflection on their teaching and their students' learning as tools to develop their teaching styles. "Learning How to Teach Disciplines" was the first stage in participants' development as teachers, and it provided an insight as to how the teaching styles/instructional approaches of participants may have developed over time. "Developing Personal Dispositions about Teaching All Students" presented an overview of what participants believed to be their teaching strengths and weaknesses. When participants completed their graduate studies and obtained necessary educational credentials, they acquired sound knowledge of the subject matter

of their disciplines. Therefore, the stage in their development as teachers “Becoming Experts in Disciplines” provided participants’ descriptions of the language of their disciplines. Although courses in curriculum and pedagogy were not part of the participants’ graduate coursework, they developed certain perceptions about the role of the subject matter, curriculum, and pedagogy in teaching the content of their disciplines to ELLs and all students over the years of teaching. These perceptions were captured by the theme “Considering the Role of the Subject Matter, Curriculum, and Pedagogy in Teaching Disciplines.” Later in their educational journeys as teachers of the general education courses at the university, participants encountered a very diverse student population comprised of large numbers of ELLs. The theme “Having ELLs in the General Education Content-Area Classrooms” portrayed participants’ attitudes towards ELLs and also their awareness of the challenges these students experienced in first-year general education classrooms. The final theme that emerged was “Engaging ELLs with the Language of the Discipline” which encompassed participants’ use of pedagogical content knowledge, subject matter knowledge, and curricular knowledge in connecting the content of their disciplines to ELLs. Each of the six major cross-case themes and corresponding sub-themes supported an overarching theme of this study which is the “Passion, Commitment, and Devotion of Participants to Teaching their Disciplines to Students.”

The overarching theme that was identified as a result of the analysis of the data was “Passion, Commitment, and Devotion of Participants to Teaching their Disciplines to Students.” Although none of the five participants in this study had formal training in pedagogy, they all utilized their knowledge and passion of the subject matter to constantly develop and modify their instructional practices to enable their ELLs to learn the language of the disciplines. As described by the participants, their passion, commitment, and devotion to their students and teaching were

evident in each of the major themes and corresponding sub-themes. Six major themes emerged from the analysis of the data (see Figure 2). Each of these six themes is comprised of corresponding sub-themes that were used to present the experiences of participants when teaching their content-area general education courses to ELLs (see Table 4).

Table 4

Major Themes and Corresponding Sub-Themes

Major Themes	Corresponding Sub-Themes
Learning how to teach disciplines	Using past experiences as learners; utilizing reflection on teaching and learning
Developing personal dispositions about teaching all students	A personable approach as a teaching strength; a lack of time and certain personal characteristics as teaching weaknesses; knowing their students
Becoming experts in disciplines	Knowledge of the language of the discipline
Considering the role of the subject matter, curriculum, and pedagogy	Subject matter coming first; subject matter integrated with curriculum and pedagogy; curriculum as a standard; curriculum as a tool to structure the learning process; curriculum as an instrument to teach a discipline in relation to other areas; pedagogy as teaching to the audience; bad pedagogy and its impact on the most interesting subject matter; pedagogy as a tool to engage students; pedagogy as a teaching style
Having ELLs in general education content-area classrooms	Loving to have ELLs in class and being aware of their challenges; thinking about ELLs and their academic success
Engaging ELLs with the language of the discipline	Making content comprehensible to ELLs; teaching vocabulary; employing best strategies; addressing ELLs' cultures; ELL status not a hindrance to their academic success

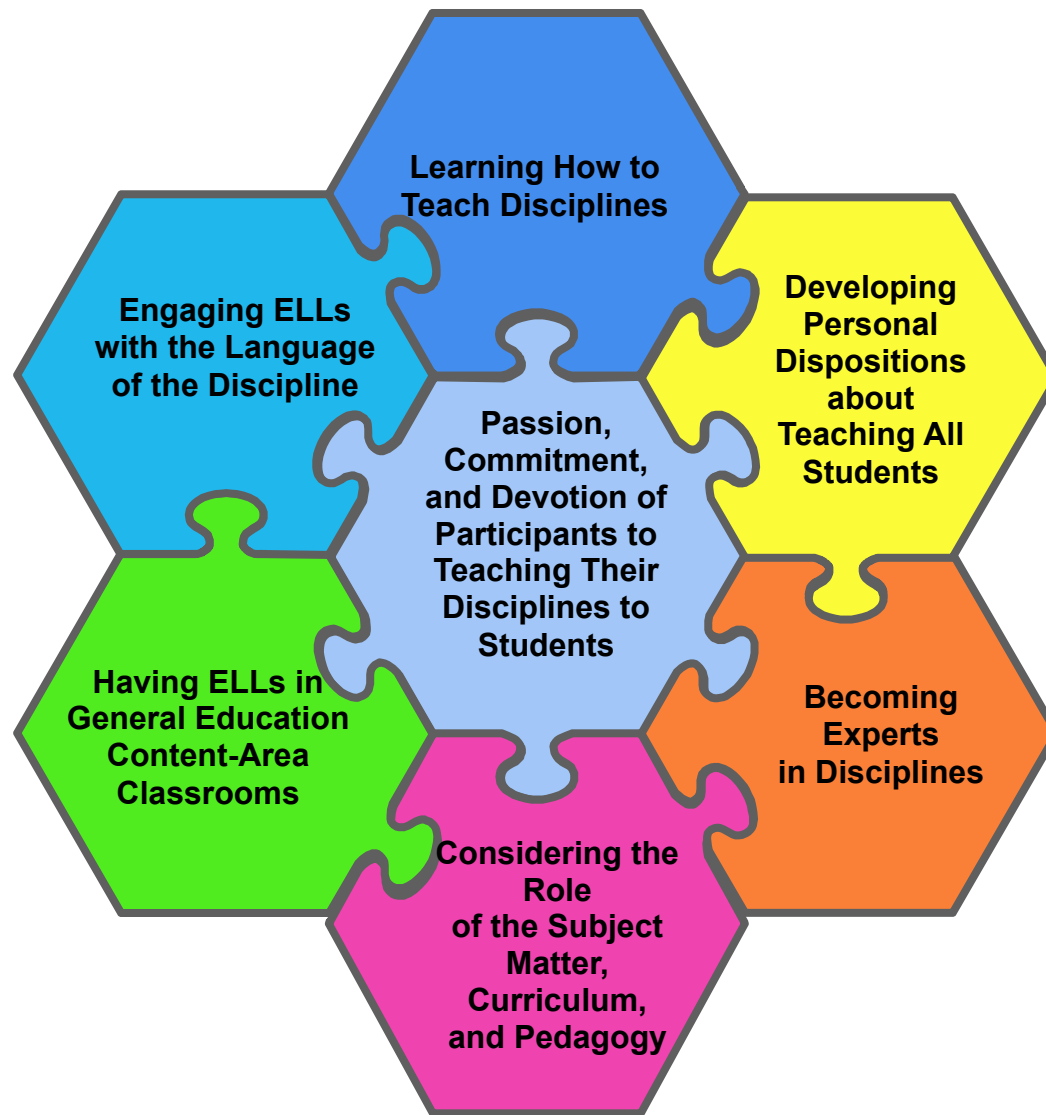


Figure 2. Major Cross-Case Themes

Learning How to Teach Disciplines

Although no participants in this study possessed any formal training in pedagogy, they each had teaching experiences prior to their employment in institutions of higher education. Therefore, participants possessed some nascent knowledge about teaching. All participants drew on their past experiences as learners and reflections on teaching and learning while acquiring knowledge how to teach their respective disciplines to students.

Using past experiences as learners. The analysis of the data revealed that when deriving their knowledge of how to teach, participants drew on the teaching approaches of those model teachers they had encountered previously during the course of their studies at the university level. For Jocelyn, such a role model teacher was a curriculum design specialist with whom she worked when teaching courses in the environmental industry. This mentor taught and introduced Jocelyn to the concept of goals, objectives, and outcomes and what an important role these concepts played in teaching and curriculum. When reminiscing on this experience, Jocelyn shared: “I think we always take what we’ve been exposed to and take these little kernels and apply them later to our own approach.”

Later in her career, Jocelyn applied this knowledge about goals and objectives in her own teaching method when teaching public speaking courses. She said:

In teaching public speaking, this becomes: ‘Why are you in front of your audience?’ So I teach objectives to my students. I ask them: ‘What is your goal? By the end of this speech, what do you want to occur?’ Get very clear on that because you don’t tell a joke that isn’t connected to you reaching that goal.

In her teaching approach, Barbara also utilized strategies she had learned from her academic advisor in a graduate program. Although, according to Barbara, this individual was not

a brilliant scientist, he was an outstanding public speaker “not in just how he presented the data, but in terms of its delivery, what he chose to emphasize, and how he made a story of things.” In addition to how to present the results of a biology research project to an audience, Barbara also learned how to create effective Power Point slides that were concise and straight to the point. Reviewing with students what they learned in previous class sessions and letting them know what would be taught later were two other very important techniques that Barbara learned while studying in her doctoral program. She shared: “I tell [students], ‘we are going to talk about this today, and I’m going to do this today.’”

Similar to Jocelyn who applied the knowledge she learned from her curriculum design mentor in the context of her discipline by teaching her students to always have a goal for their speeches and address their audiences, Barbara also tended to use techniques she learned when she was a learner herself, but she altered these techniques to accommodate different types of learners. She said:

What I do is I provide [students] with the slides that I am going to use, and I tell them: ‘This is really for you to have a record to prepare and then to annotate and then to review so then you have them all. It saves you some time but I’ll always go beyond, I’ll always have you add some things, so you need to be ready. You need to be ready to add things in as notes.’ This is for the note takers.

When contemplating about the experiences of how he learned how to teach, Istvan, as well as other participants, drew on his experiences as a learner and a student in the graduate programs he attended. As a teaching assistant, he was required to teach introductory courses in psychology because “[he] had this class before, so [he] was ready to just go ahead and teach it.”

The classes were very large; he had about 300 students one time when he taught. Since Istvan did

not know how to present the subject matter of his discipline to students, he had copied his teaching style from the best professors he had as a student. He shared: “So you just assemble all your best professors in your own mind. I took as a prototype the good professors that I have had. I would imagine how they would teach; I would imagine what they would do.” In fact, one of the professors in Istvan’s graduate program wanted to make sure that teaching assistants knew how to teach, so this professor observed Istvan’s classes. He provided Istvan with many useful tips regarding how to present the material to students. Some of these tips were: “Don’t speak to the blackboard; come to the front of the room; speak louder, speak slower to attract attention or to emphasize certain points; and make eye contact with students.”

Istvan utilized these techniques later when he began his teaching career at the research site, but he also added some other strategies to his repertoire of instructional methods. He explained that “that was natural evolution that has happened over time” because of the changing context or environment in which his teaching was taking place. Istvan responded to these changing circumstances by constantly adjusting his teaching approach to meet the needs of his students. When more students who were enrolled in his psychology classes started having severe problems with writing, a new technique that evolved was writing and rewriting. Requiring students to present in class and provide them with a rubric was Istvan’s response to difficulties his students had been experiencing with public speaking. Therefore, he shared: “The teaching [method] evolved into a feedback process.”

Although Thomas derived his knowledge of to how to teach primarily by reading various materials related to general education and attending a workshop on general education, it was a dean of the college in which he had been teaching general education courses in theology who had a major influence on the development of his teaching method. He said: “I’ve probably learned

more [about teaching general education courses] from the Dean than I have from anyone else.”

What he learned from his mentor was how to develop general education goals for undergraduate theology courses, how to assess learning outcomes in these courses according to general education goals, and how to develop the curriculum for general education courses.

When developing his own teaching method, Eric first remembered all teachers he had in the past and then asked himself which of these teachers were the best or the ones who made the most impact on him. He said: “There were three or four, probably, that had the most impact on me. I wanted to teach their style and so what I did, I worked out the methods that they used.”

Eric further elaborated that for him to “make an impact” meant “to get [students] interested in the material and to get [students] connected to the ideas these teachers were teaching.” To clarify this idea, he used as an example one of his professors who taught botany in graduate school:

I had a professor, a young woman who was teaching botany, and she made botany everyday stuff. We talked about lumber in a warehouse; she would also talk about orchards, apple orchards she grew. Therefore, she made botany not just a dry subject where you had to memorize a leaf shape and everything, but she presented it like a useful thing and that got me.

All participants used their past experiences as learners when developing their own teaching styles. At the beginning of their educational journeys, participants employed the best instructional practices that their previous teachers used enabling participants to explore and learn how to connect the content of their disciplines to students.

Utilizing reflection on teaching and learning. In addition to using their past experiences as learners, all participants also utilized reflections or the “processes of reconstruction and reorganization of their [teaching] experiences that [added] to the meaning of

[these] experiences” (Rodgers, 2002, p. 848) when deriving knowledge of how to teach their discipline-specific courses to students. Although participants employed somewhat different forms of reflections, the purpose of their reflections was the same in that participants used reflections to enhance their instructional approaches and/or alter their dispositions about teaching their disciplines to students.

Barbara’s teaching style developed “spontaneously” in that her first teaching experiences were one-to-one tutoring. She recalled:

Some of my friends would call at night and say: ‘I don’t understand this physics problem.’ So sometimes I would have to read over the phone or sometimes I would have to give directions: ‘Write it down this way, draw a line, can you see this?’ For the more complicated problem, it’s a matter of sitting down and trying to get them to appreciate the deeper context, the principle, the generality behind it.

Barbara utilized this strategy of looking at a more complex general principle when teaching first-year general education biology classes at the research site. She said: “So it’s a bit how I approach teaching too. I tell [students] that this is the big picture; these are the general rules, and these are the specifics that are interesting.”

Students’ feedback on her teaching style also helped Barbara to learn how to teach and to understand that students learned differently. She said: “Now I have come to appreciate that some students like outlines and some students want to have practice.” Barbara took her students’ feedback into consideration and as she described: “I have basically come to a compromise in terms of how to prepare them.”

Similar to Barbara's use of reflection in developing her teaching style and applying it in the context of her experiences of teaching biology, Istvan's teaching style had developed "by awareness and a reflection on students." He explained:

You can tell by the students' eyes if they understand something. It was also constant evaluation. You know I would give an examination and I would think: 'Oh, I had made this so clear.' You get the examination back and the students really didn't understand, and so it was: 'Ok, you have to do this.'

After administering midterm and/or final exams in classes, Istvan would always conduct a content analysis of every question on the exam, and:

If 75 percent of students get the question wrong, I throw it out because, obviously, it is the question not the students. I may have not taught this. I may have not taught it properly, and so that question goes out. I give students points because it is a bad question, and I remove it...

Similar to Istvan's strategy of using reflection as a technique to develop and/or alter educational practices, Jocelyn would look at the written transcripts of students' speeches every semester to identify how she could have taught the material more effectively. She said:

Over the years, I've tweaked [the way I teach speeches]. You know every time I finish a class, you could see new assignment ideas, and every semester, I [determine] what I can change, what can come out, what can be done better, and then I integrate that. I try to see how I can make it easier for the learner.

Jocelyn created a video and a "formula" for delivering a dynamic speech. While developing these instructional materials, she "looked at all types of learners" and tried to make these instructional tools more "audience-centered." Over the course of years, Jocelyn had

become more confident about her teaching style as she “witnessed what has worked” for her students. Always being an overachiever, she established a goal for herself such as “talk less, listen more” in order to take her class audience into account. The purpose of her reflection about her teaching was to be fully aware of who she was and who her audience was so that she “[could] get her message through.”

Eric also used reflection as a technique to develop and change his teaching style and his communication with students. Unlike other participants’ reflections that focused more on the instructional approaches, Eric reflected more on his connection with students on a personal level. He reported:

I have doubts when I go home at night. There are times when I know I didn’t handle something smoothly with a student getting angry with me. I try to diffuse things. I know that the student anger is something that they need to control, but I always go home thinking. Perhaps it was something I did that triggered that. I go home with doubts about that at night. Or a student I’m happy about or a student crying. So, you know, I take that home sometimes, and I don’t sleep well at night.

In addition to utilizing reflection as a method to advance his teaching style, Eric attended his colleagues’ classes and observed their teaching. He shared:

And I watch my colleagues too. Some of my colleagues are really gifted, and I watch and I see. I watch what they’re doing. I go in at least once a semester; I’ll go into one of my colleagues’ labs or lectures and sit in the back for a few minutes. I just want to get a feel for what they’re doing . . . and I see what they’re doing. I observe and write down notes, so I pick up what my colleagues are doing.

Thomas, unlike other participants, felt that over the course of teaching general education courses in theology, he had learned and developed a style that allowed him to teach the subject matter to an audience who was “utterly resistant” to what he had been teaching. His teaching style enabled him to show to students that theology was absolutely relevant to their lives whether it be their personal, professional, or social lives.

Participants’ reflections about their teaching, their personal connection, and communication with students provided them with an opportunity to alter their instructional approaches when connecting the content of their disciplines to students. Reflections allowed participants to engage themselves in open conversations with students about the nature of their disciplines and to be open to diversity in their classrooms.

Developing Personal Dispositions about Teaching All Students

As they moved ahead in their teaching process, all participants developed certain personal dispositions about teaching their disciplines to students. Teaching strengths and weaknesses were viewed through the lens of an individualized and a personable approach to teaching and were also related to the realm of personal characteristics such as empathy, approachability, and compassion. Knowing their students on a more personal level allowed participants to reach out to all students and connect the content of their disciplines with them more effectively.

A personable approach as a teaching strength. A personable teaching approach that emphasized empathy to the needs of students, an ability to draw on students’ culture, and commitment and love for students and teaching was participants’ teaching strength and part of their personal dispositions that participants developed about teaching their discipline-specific courses to students. When discussing the development of their teaching styles and sources of

teachers' knowledge, participants shared what they considered to be their individual strengths in this area. One strength of Barbara's teaching approach was that she had a multicultural background and spoke more than one language. Barbara's biggest teaching strength was the ability to empathize with ELLs and include cultural references in her instructional approach. She said:

If there are three cultural references related to the same Biology concept, I'll mention all three. If I have an ELL from a different part of the world, and, if there's a chance to talk about it, we will. That makes [students] a bit more engaged, that they can share. That way they are not culturally isolated, and they see it's relevant to their culture too.

Jocelyn felt the strength of her teaching style was her ability to utilize an audience-centered teaching approach. She believed that such an audience-centered teaching style allowed her to be very flexible in using teaching methods and be aware of "not just the majority in the classroom, but rather on the minority in the group." She thought that another asset of her instructional method was her capacity "to be a person, to be approachable, to be caring, to be truly caring about [students'] development and to really want [students] to learn."

Istvan described strengths of his teaching style in a manner similar to Barbara and Jocelyn's characteristics of their teaching strengths. He shared: "I want to make sure that they learn [the material]. I'll try to find appropriate examples; I'll take the extra time to ask them if they are confused about something." One of the key characteristics of Istvan's teaching approach is the individual personal attention given to each student. He shared: "When I read their essay and their exams, I asked them to come see me or go to the Writing Center because they are thinking in their first language."

Thomas identified the most important strengths of his teaching style as his “total commitment and love for teaching introductory general education courses [in theology].” He elaborated further: “I’ll teach [these courses] until the end, so I’m totally committed to teaching them. I’m the chair of the department who’s getting other people to be totally committed to teaching these courses. [Students] know that; they understand.”

Thomas let his students know that they were the most important people for him because they truly helped him to understand and learn what theology really was. According to Thomas, theology means to make a religious tradition relevant to a culture, and his students were the culture. He purported: “They are the culture in all their permutations, whether they are generation 1.5, or whether they’re millennial or generation Z, Y or whatever they happen to be.” For Thomas, making the theology subject matter relevant to students meant “doing theology,” and his students, in their own way, assisted him to do so.

The primary strength of Eric’s teaching approach was his knowledge of the subject matter. He said that he knew how “to present and [explain] complex things in a simple way.” Eric also felt that his organizational skills were another advantage of his teaching style.

It appears that for all five participants, the distinguishing characteristics of teaching strengths aimed not so much in their knowledge of specific instructional strategies or pedagogy, but more in the realm of personable individual approach to each student when teaching their content-area disciplines to students. Such qualities as empathy, approachability, care, personal attention, love, and commitment to teaching undergraduate general education courses were the primary assets of their pedagogy. The above-mentioned teaching strengths are very beneficial to all students when teaching them the content of discipline-specific courses, but they are even

more valuable for ELLs who grapple with two challenging tasks: acquiring academic language and the language of the discipline at the same time.

A lack of time and certain personal characteristics as teaching weaknesses.

A lack of time to try additional strategies in class, a lack of time to get to know their students better, and some personal characteristics were identified by participants as some of their teaching weaknesses. The exemplars below speak to this sub-theme most effectively. Due to a time pressure, Barbara did not experiment enough with additional teaching strategies as she could have. She elaborated:

There are things I would like to do to make the class better. One of the things I could have maybe tried, instead of giving quizzes that count, just have [students] come after class and have them take pre- and post-quizzes which can help [students] prepare. It will help them learn what they are supposed to learn.

Barbara feared that if she would push her students very hard, she would “lose” them in terms of their engagement and motivation to learn. On the other hand, she wanted students to learn the required material, so she “made [her] peace with the course content and structure, and it fit the group of students Barbara was teaching.” Hence, she tailored her approach so that she could make reasonable demands. Another strategy that she could have tried was “to give more lab work, but make it less work intensive so that students would need to do even more.” She recounted her experience as an undergraduate student: “When I was an undergraduate student, we had a lot of work to do. It was a lot of work.” Barbara also commented on how she would want “to change some of her labs” and make her labs “more exciting.” She explained:

I heard some people experimenting now in the lab and use clickers when lecturing. I do teach a lecture, and I have not had the time to do that. I heard there is some interesting,

good feedback to it, so I wish I had tried additional things, just to see what else clicks. I have something that works ok, but you know there is always room for improvement.

Thomas's biggest teaching weakness was a lack of sufficient amount one-to-one time to spend with his students. He said: "My biggest weakness as a teacher is: I wish I had even more time to devote to [students] and the material." Thomas would always change the narratives in the courses he was teaching because students in his classes were not only required to read conceptual theology such as concepts and their meanings, but they also had to read stories. Reading stories enabled students to infer the meanings of stories and correlate them to theological concepts. Changing the course narratives enabled class materials to "be fresh," elucidated Thomas, and it contributed to his personal growth as well as the faculty teaching general education courses in theology.

However, because of his various duties in the university both as a faculty member and as an administrator and his active involvement in the discipline in terms of writing and publishing, Thomas did not have enough time to spend with his students, especially one-to-one time. He shared:

What I really would like is to have even more one-to-one time with my students.

Because I think it's very important to get to know who these students are, their backgrounds, their struggles, their fears. I feel sad if I don't. Like right now, I have 15 students, and I know all of them in there. I have a good sense of who they are, where they are from, where they grew up, the challenges of their lives. But I wish I had more one-to-one time with them and that they would all come in here and sit with me and talk and talk.

Similar to Barbara's fear of pushing her students to learn more and require more of them, forcing her students too much was the biggest weakness of Jocelyn's teaching approach. She explained:

My weakness, probably, I think I can also listen more because sometimes I'm trying to push this and I 'need you to know this.' I may need to back off and be more receptive to what's happening in that moment to find a balance in trying to accomplish your objectives.

Some of her personal characteristics were perceived by Jocelyn as her teaching weaknesses. Jocelyn had this to say: "I'm too nice, and it would actually be better if I were the other way around. Sometimes I think I teach them they don't have to meet deadlines. I think I've gotten better over the past few years about that; however, sometimes I [give in]."

Jocelyn recounted one of her experiences with an ELL student who always had excuses for the classes he missed. She explained:

I'll talk to him about that, but sometimes I bend because I want so badly for him to succeed. That's not teaching him a good lesson because he is going to lose a job down the road because you have to show up to work in this country. I always vacillate as to how [I should approach this], but that's not my nature. I'm someone who goes and helps [students].

In concert with Jocelyn's perception regarding her teaching weaknesses, Istvan also identified his personal characteristics as his teaching weaknesses. He referred to his lack of patience. This was what he had to say:

I suppose I could be more patient. You really want the student to learn and when they don't, you get frustrated and you give them three examples and four examples and they

still don't get it. A student shakes his or her head and then writes something that shows that he or she still does not get, and, probably, it gets parental then in that 'that's enough already with these kids.'

Finally, Eric also associated his teaching weaknesses within the realm of personal characteristics and even his appearance. He shared: "I'm organized, but not in everything. As you can tell, I am not a stylish dresser." He felt he was not an easy-going person and the one who could appear as harsh because he expected "a positive energy from his students." He recounted one experience:

The first day that I see two eighteen year olds talking in my class, and I'll say, 'Do you have a question?' and I get stern and that intimidates some people.

He was not sure if he connected well with his students, and he perceived a possible lack of this connection as one of his teaching flaws. He shared:

I have, I have doubts that I'm connecting with students effectively. When I see test scores and they are not good, I want to say, 'Well, they chose not to study.'

However, I have doubts about that. I think that I didn't reach them; I didn't do my job this week. These are bad scores, and I should have done a better job.

Participants' teaching weaknesses were related not strictly to the realm of pedagogy and/or participants' knowledge of specific instructional strategies but also to how connected participants were to their students. Participants' personal characteristics and a lack of one-to-one time to spend with students or try additional strategies were viewed as teaching weaknesses.

Knowing their students. Being aware of students' personal information and establishing relationships with students to engage them in the learning process were part of personal dispositions about teaching their discipline-specific courses to students that all participants

identified as having developed during their teaching journeys. For example, Istvan asked his students to fill out the form on the first day of class on which they had to write down their names and the names of their advisors. This information enabled him to know “whether [students] were majoring in premed or nursing or education or undecided or general studies.” To make his connection with students even more personal, Istvan also asked them “to tell him something interesting about themselves or some other information they would like to share about themselves.”

Thomas as well as Istvan asked students to provide him with their personal background information by completing a form on the very first day of class. However, even prior to the very first class meeting with his students, Thomas went online to see his students’ pictures and to learn their first names. Therefore, by their first class meeting, he was able to address his students by their first names. He also added: “[Students] give me some background information because I want to know where they’re from. I want to know whether they have taken any religion courses or not. So they are giving me some background information.” What was also important for Thomas was that students would get to know one another too. He required students to talk about themselves on the very first day of class and introduce themselves by letting the rest of the class know where they came from. This was a typical icebreaker activity Thomas did on the very first day in all classes he taught and made sure students know one another very well. It was common for his students to gather before class and talk to each other.

Barbara also looked up every student enrolled in her class prior to the very first day of class and learned their names as well as the names of their advisors and their majors. She entered all this information along with students’ pictures on an Excel spreadsheet so that she was aware of “who [was] taking her class.” This information allowed her to understand why the class, in

which there were many students enrolled who were not majoring in biology, might be struggling. Getting to know her students' background information was invaluable to Barbara's understanding as to how she should modify her teaching approach in that class. She explained:

If I teach freshmen, I am going to assume that they have not necessarily had biology before. I'm going to assume a blank slate, which also means I'm going to give them a lot of guidance: more hand-holding than in any other upper level classes. For example, in regards to the lab report's guidelines, I tell them how to go into Excel, what to click on, how to do a graph. I tell them you can use this as a first sentence for material methods, just use this sentence. This is not plagiarism. Do not do that. So as opposed to giving them less guidance, I give them almost like step-by-step instructions. They are mostly graded on whether they follow the steps.

Barbara made her students avail themselves of all resources available at the university such as tutoring, office hours, Writing and Reading Centers, a Math Lab, a computer lab, and teaching assistants when students were struggling with the material or their writing. Taking into consideration that she was teaching first-year students, she wanted to apprise them of the academic environment by strictly adhering to the attendance policy, providing a lot of guidance and support, and teaching good "college" habits.

In a similar way as Istvan, Thomas, and Barbara did, Jocelyn also dedicated the first week of her classes to getting to know her students. This approach fit her classroom scenario where she was a coach and her students were team members. Therefore, her students were required to prepare and give speeches about themselves to the entire group by focusing on where they were from, what their background was, what their favorite food or dessert was, and any other interesting information that students wanted to share with others. This activity allowed for

interaction among students and also afforded them an opportunity to see what they had in common and to learn one another's names. Jocelyn also awarded students with bonus points if they learned their classmates' first names. Jocelyn explained what an impact it made on students:

We know everybody's name, and [students] are amazed that they know everybody's name. What that causes is they all have a buddy system that they work together. And I know every student's name too, so every day I'm calling them by name. Therefore, it's friendly that way, and I think that impacts the class and motivates students to learn.

This personable approach made it possible for students and her to establish more personal relationships. It also helped Jocelyn to create a stress-free environment in which she and the students could laugh together and make learning meaningful for all students.

Finally, Eric also addressed his students by their first names and knew their faces by the middle of the semester. He shared an interesting technique as to how he was able to create an engaging environment conducive to learning:

What I like to do is I like to identify as soon as I can, the kind of student who likes the attention, who likes the limelight, and then I can use that student to help relax the rest of the class. I find a student who likes to joke around in a good way, in an adult way. I find the student who is comfortable being in the spotlight and use that student to sort of break the tension in the room.

Eric was well aware of his students' backgrounds and shared very interesting observation about the student population. He had this to say:

Most of my students in my experience come from families that are relatively insulated. Our students tend to be kids from catholic schools. Their parents tend to keep them close to the family. I don't run into a lot of wild kids as I would if this was in University of

Pennsylvania or if I was back up in the university from which I graduated. It's a very different type of student what you see here. Our students tend to be pretty local. Most of my students are local kids, and these kids that come from out of state, they're coming usually from catholic schools.

Participants' knowledge about their students and their ability to establish relationships with them were important factors in developing participants' pedagogical content knowledge or the ability to connect the content of their disciplines with students. Knowing their students also allowed faculty to create a welcoming and an engaging environment conducive to learning.

Becoming Experts in Disciplines

Teaching discipline-specific courses means connecting the content of these disciplines with students (Kreber, 2009). In order to be able to connect the content of the discipline-specific courses with students, teachers must possess knowledge of the language of their disciplines and develop views on the role of the subject matter, curriculum, and pedagogy in teaching disciplines to students. Participants in this study had profound knowledge about the language of their disciplines and were aware of the most subtle nuances of it. While acknowledging the important role of both curricular and pedagogical knowledge in teaching the content of the discipline to first-year undergraduate college students in general education classrooms, overall, participants perceived the subject matter knowledge to be the most important factor in teaching the language of their disciplines to students.

Possessing knowledge of the language of the discipline. All participants agreed with the statement that “to learn a discipline, one must learn the language of this discipline.” They were well aware of distinguishing characteristics of the languages of their content areas. This knowledge enabled participants to engage their ELL students as well as all students with the

content of the discipline. Since participants in this study represented different content areas, the researcher provided exemplars that best exemplified this sub-theme from each of the five participants.

Language of psychology. The most challenging aspect of the language of psychology is its vocabulary. Istvan explained:

It is a separate language, and psychology has its own style of thinking. Therefore, ELLs have difficulty with it and so do native speakers. The difficulty is that there is no other way to teach it except for students to have to learn this new vocabulary, and not just simply to learn words but also concepts.

Even though this challenging technical vocabulary of psychology can create difficulties for ELLs, Istvan pointed out that some students are very bright in that they could grasp the concept right away, and “once they get the concept, the word to put on it is not so challenging if [students] already speak two or three languages.” He elaborated further:

To be able to say *nucleus circumference of the ventral tegmental* area is not more challenging than learning an idiomatic expression in another language. You need to know what these four words represent, but it could be in any language. You just learn to put more words on to that, so it becomes the fourth language for some students and a second language even for native speakers.

Another challenging aspect of the language of psychology for students is how psychology functions. Istvan had this to say:

How psychology operates is really the way medicine operates; you have to look for certain signs or symptoms. Then these signs must be combined to yield a diagnosis. From a diagnosis, you have to determine how you are going to treat it. Then you have to break

things down and show how you are going to treat it and what outcome it is going to lead to. This is a prognosis. So psychology uses the same thing.

Istvan absolutely agreed with the statement that “to learn a discipline, one must learn the language of this discipline.” In order to present knowledge in psychology, students must exhibit analytical thinking skills when working with a case history. They should review the case, make the diagnosis, and identify a differential diagnosis. Istvan explained that psychology was an analytic discipline.

Language of biology. Both Eric and Barbara were experts in the same discipline, and their descriptions of the language of biology were similar. Barbara shared that writing in biology was one of the distinguishing characteristics of the language of biology. She commented that ELLs might be struggling with the rate of their reading and writing and overall the intensity of work they needed to produce in all courses they had taken. The familiarity issue with vocabulary terms might be a challenge, but Barbara did not find this as a negative factor impacting ELLs' academic performance. Barbara also said that inviting other students to her class who were ELLs themselves and having them talk to ELLs enrolled in her class made a huge impact on her ELL students' self-esteem and boosted their self-confidence.

Barbara supported the view of other participants in that “to learn a discipline, one must learn the language of the discipline.” Barbara shared that the language of biology is a cross-disciplinary language because it is also the language of mathematics; it is the language of history; it is the language of philosophy; it is the language of cause and effect; it is the language of correlation; and it is a descriptive language. This view was also supported by Eric, who explained that the language of biology was a mixture of different disciplines such as chemistry,

physics, philosophy, and logic. Biology is a very content-intensive discipline. It requires the use of examples in order to see correlations and a hierarchy. Eric elaborated:

We do a lot with atoms and molecules down here, but then we have up here ecosystems such as trees and herbivores. Students have to be able to go across these scales, to go from atomic levels to the cellular level, to the organism level.

Language of communications. As did other participants in this study, Jocelyn agreed with the statement that “to learn a discipline, one must learn the language of this discipline.” She noted that the language of public speaking has a specific vocabulary. Therefore, Jocelyn made sure to introduce her students to this new vocabulary or discourse through peer critiquing activities. When students had to give feedback to one another, they could not just simply write “good” or “bad,” but use terminology such as *attention grabber*, *body language*, or *eye contact*. Speech organization or organization of a message was also highlighted by Jocelyn as another distinguishing characteristic of the language of communications.

Language of theology. Similar to other participants in this study, Thomas agreed that “to learn a discipline, one must learn the language of that discipline.” Thomas shared that there is a specific genre of theological writing that is an interdisciplinary writing in that “it does not speak one language, but it is an interdisciplinary language.” This type of writing was borrowed from philosophy, from social sciences, namely sociology, and it is very sensitive to culture. In order to teach the content of theology to students, it is imperative to teach them about what it means to interpret their culture and also to interpret texts. Thomas said that ELL students as well as NES struggle with the hermeneutical exercise he gives students in his classes. The nature of this exercise was that students were required to explain what it meant to interpret something. Therefore, to think as theologians do, students must learn and understand the nature of

interpretation. Doing theology is not possible by just simply repeating definitions of certain concepts. Thomas illuminated:

Getting [students] to understand and interpret the concept of *belief* is a key to the discipline. If they want to just find the definition and repeat it back to me, it is going to be a little hard because they will have to read the whole chapter, approximately 40 pages on what belief is. They are going to need to understand what belief is as it is, in fact, explained, delineated, and comparatively discussed.

In order to master the subject matter of theology, it was not sufficient to simply be able to understand and repeat a definition of a theological concept. Rather, students needed to learn how to discuss the concept “in relationship to a large narrative discussion.”

The results of the data analysis revealed that all participants possessed strong knowledge about the language of their disciplines and the ways of thinking that are characteristic in their content-areas. This knowledge enabled participants to be fully aware of the challenges the language of their disciplines presented to students and respond to these challenges.

Considering the Role of the Subject Matter, Curriculum, and Pedagogy

Although none of the participants reported receiving any formal training in pedagogy and curriculum, participants developed their perceptions and dispositions regarding the role the subject matter, curriculum, and pedagogy played in teaching their disciplines to students enrolled in their general education courses. Knowledge of the subject matter was the most important factor in connecting the content of their disciplines with students for some participants while others expressed that knowledge of the subject matter should be integrated with knowledge of pedagogy and curriculum. Some of the participants were not clear about what curriculum and

pedagogy really were and what differentiated one concept from another. The exemplars provided below for each sub-theme best captured the essence of these sub-themes.

Subject matter coming first. Barbara, Istvan, and Eric agreed that knowledge of the subject matter of their disciplines, i.e. biology and psychology was the most important factor in teaching the language of their disciplines to students enrolled in first-year general education courses. Barbara stated: “Ok, I would say content is primary; I think most everybody will tell you content is definitely primary in biology.” Eric supported Barbara’s point of view and indicated that “the subject matter in biology is what drives the discipline;” therefore, he found it the most important factor.

Istvan believed that the subject matter of psychology was inherently interesting and capable of capturing students’ attention; he ranked it as the most important factor in teaching psychology to students. Interestingly, when providing examples of other disciplines in which the subject matter was not as exciting as in psychology such as mathematics and physics, Istvan assigned the most important role to pedagogy in teaching the content of these disciplines to students in general education courses. He had this to say:

I think that people who are teaching in areas that are not that interesting, I guess then the pedagogy would be the most important factor because there they would have to really be using something different. How am I going to teach statistics? Well, everybody likes to gamble; everyone likes to play cards, so let’s play a little bit of cards and then you can capture students’ attention. Therefore, when the subject matter is terrible, the pedagogy will allow you to find a way to attract students’ attention. It is just that I have been privileged teaching a subject that for the most part is very interesting.

Subject matter integrated with curriculum and pedagogy. Both Jocelyn and Thomas agreed that all three layers of teacher knowledge, that is the subject matter knowledge, pedagogical content knowledge, and curricular knowledge were important and integrated in the process of connecting the content of their disciplines with students. Although Thomas espoused the view that there should be a high emphasis on the subject matter knowledge in his discipline, he nonetheless pointed out:

Our content is extraordinarily important, but that being said: if you are going to bridge the content to a culture, which theology is doing, you've got to think about both, pedagogy and curriculum. You have to think of the way in which pedagogy and curriculum become organized, so again, those things are extraordinarily important.

He further elaborated that content could not be divorced or separated from pedagogy and curriculum, and that these three concepts of teacher knowledge existed on "an equal plane" when teaching undergraduates in general education courses. However, Thomas revealed a very different view in regards to the role subject matter knowledge plays in delivering the content of theology to students majoring in the discipline as well as graduate students. He had this to say:

The more you get into the major, you might say the content takes a greater role. When you get into graduate students, it quite clearly takes a higher role. Master's and doctoral students are going to need to be mastering the content. The content is going to prevail at the graduate level.

Thomas emphasized that when teaching the content of theology on an undergraduate level, teachers must always think about what they do when teaching or how they teach because they do not teach the subject matter in the same way as they would when teaching theology in the major or on a graduate level. Teaching the subject matter to undergraduate students means

“teaching it in its relation to other disciplines.” He recounted a conversation with one of his students: “One student told me the other day, ‘Well some of the things you’re saying interfere with what I’m learning in the social sciences.’ I said: ‘That might be the case, but this is a discussion about how the social sciences interact with religion.’” Jocelyn’s perception about the role of the subject matter in teaching the content of communications in general education courses somewhat echoed Thomas’ view in that she believed that all three layers of teacher knowledge were important: “They are all significantly important.”

Curriculum as a standard for teaching the discipline. When discussing this subject further, Jocelyn also stated that it was crucial for faculty to possess knowledge about the curriculum when teaching undergraduate communication courses. Curriculum was important because it provided a “standard” for teachers in their selection of “what it is that students needed to know and methods of how to convey this knowledge to students.” Jocelyn’s belief was that teachers teaching general education courses in her discipline should have a “shared curriculum.” This concept of “a shared curriculum” entails that students are able to transfer skills they have learned in one communication class to other public communication classes they will take later. When the curriculum is “shared” among different sections of communications classes, the course objectives, goals, and assessment tools are the same in different sections of communication classes.

Curriculum as a tool to structure the learning process. Both Barbara and Istvan viewed curriculum as a tool that enables teachers to structure the learning process. While Eric shared that the concept of curriculum was somewhat vague to him, his perception about the role of curriculum in teaching general education courses in biology supported Barbara and Istvan’s views. Barbara disclosed that she had exposed students in her undergraduate biology class to a

“broader curriculum” when she had to explain to them why they were required to learn some material that they did not feel had any relevance to their majors: “It’s often you hear from pre-med students who say, ‘Why do I have to learn about something that is not medically directly relevant?’ So, I always bring in a bit of a broader curriculum.” Barbara believed in the importance of answering this question. She had this to say:

I like to explain why I teach the way I teach to students. ‘Why do we have to learn this?’ This is the question that I can answer. If I try to answer it, [students] may not like the answer, but at least it’s not a question that nobody ever answers for them. We have some reasons for doing it a certain way.

Istvan recounted a similar experience. He said:

One of the first things we teach in class is the brain, and [students] go: ‘Why do we have to learn it? This is not biology.’ So I have to say: ‘You need to understand what operates everything. What do you think allows you to make this criticism right now? It all starts from the brain. That is why I choose to teach about the brain first and then work from there onward just so that you understand; that is it. It is all in the brain; that is how everything starts, and that is how everything ends.’

Istvan shared that psychologists always look at the process of development or how something is laid out and/or planned. Similarly, curriculum provides a plan for instruction in which teachers first explain fundamental basic skills and concepts and then “add complexity and make things more challenging.” Istvan underscored that students should be aware of how their learning process is organized and that they need to know the reasons for why they need to study certain concepts even though students may not see the relevance of these concepts to the course content at the beginning.

Eric also revealed that students in his class often felt that the course content was not relevant to other disciplines or the content of other courses in their major. He heard his students complaining to each other: “Botany’s a waste of time because botany won’t get you into medical school.” Students did not realize that certain concepts like *mitochondria* they learned in botany class would be then easier to master in a microbiology course. The role of curriculum in Eric’s view was to organize the instruction in such a way that the concepts students learned in one course would be then reinforced in other courses. Barbara also described how she used a concept of curriculum when explaining to students why she required them to write so many lab reports in her class:

I say the reason I’m asking you to write so many lab reports is that you have to learn it in here. I will give you all the details; I will give you all the guidelines in detail, step- by- step. I will not assume you’ve written them before, but this is when you have to learn the next step. In the next class, they will expect you to know this. So, this is where I bring up curriculum.

As Barbara also revealed, she employed her knowledge of curriculum to provide students with clear expectations. She had this to say:

I think freshman need to have clear expectations; that’s my firm belief. Students like expectations; they don’t like mystery, not for class, not for grades, not for what’s coming. I figure if they’re half warned, they’re half prepared. If they are fully warned, they may have a chance to be fully prepared. Therefore, I try to warn them so that nobody in the class will say, ‘Oh, I wish I hadn’t done this’ or ‘I wish I had known that.’

Curriculum as a tool to teach a specific discipline in relation to other disciplines. The analysis of the data showed that all participants believed that the curricula of their specific

disciplines were interdisciplinary in their nature, and these curricula should be taught in relation to other disciplines. Thomas explained the essence of this category in the best way. According to Thomas, the content of theology represents an “interdisciplinary reality” in that it draws on traditions from philosophy, sociology, linguistics, and other areas. Therefore, when teaching the content of theology in undergraduate general education classes, teachers should help students to always look at their own content areas in which students major. Teachers must discuss how theology interacts and interfaces with all these different areas of study. This was how Thomas used curriculum when teaching theology in undergraduate general education courses.

Pedagogy as teaching to the audience. Participants viewed pedagogy as teaching to the audience, believed that bad pedagogy could make a negative impact on even the most captivating subject matter, perceived pedagogy as a tool to engage students with the content of the discipline, and regarded pedagogy as a teaching style. Barbara shared that she viewed pedagogy as teaching the content of her discipline to students, but she utilized different pedagogical approaches based on her audience. She revealed: “I definitely do teach to the audience. I include things for ELLs like cultural references. When I teach to the freshmen, I teach to the freshmen. When I teach to the seniors, my pedagogical approach changes so that it fits the seniors.” Barbara perceived pedagogy as a much broader concept that encompasses not only instructional techniques geared towards a specific audience, but also such notions as class policies and class expectations. She elaborated: “Pedagogy is why I do grades the way I do. For example, I drop the lab report with the lowest grade. The reason I do it is that it is very possible to do poorly on the first report and also just because you have never done one before.” Pedagogy in Barbara's view included guidance and nurturing: “I explain that the lowest quiz will be dropped in case

[students] miss it or come in late, but after that they have to come and do it. I explain to students how [I structure] the class, and I give them expectations.”

Jocelyn supported Barbara’s view in that the pedagogical approach should take the target audience into consideration in order to convey the content of her discipline effectively. She emphasized that teachers should be willing to “get out of the box” in order to reach a student so that pedagogical approach truly becomes a learner-centered and not a teacher-centered one. Jocelyn also related pedagogy to the creativity of the teacher. She had this to say: “How I deal with the subject matter and how I make it happen in life is crucial. This is crucial and that’s what makes students want to be in the classroom or makes them not want to be in the classroom.”

Bad pedagogy and its impact on the most interesting subject matter. Istvan’s explanation of this sub-theme best captured its essence. Istvan viewed the role of pedagogy as very important in teaching even such a fascinating subject matter as psychology because not employing effective teaching approaches and techniques might completely “ruin it.” He recounted one experience: “I have observed many people teaching, especially when we hire someone, and thinking, ‘Oh, my God, how could you ruin that?’ It’s like a recipe. How could you ruin a lecture on Freud? So even an interesting subject matter can be completely ruined without utilizing an appropriate pedagogical approach.” On the other hand, he also observed some other faculty members who taught a statistics class and made it quite interesting and relevant to students.

Pedagogy as a tool to engage students with the content of the discipline. Exemplars below provided by Thomas illustrated this sub-theme in the most effective way. The role of pedagogy in teaching the content of theology to undergraduate students in general education classes was regarded as a tool to engage students with the content. Since theology is an

interdisciplinary subject, students have to think and interpret fundamental philosophical, cultural, and historical developments and relate them to their own cultures. Pedagogy helps teachers to invite students to interact with content and knowledge through various media such as literature, presentations, narratives, and stories. Thomas revealed:

You have to think about the way that [students] themselves are interacting with content and knowledge. You can have them sample questions through media presentation, through literature, through story. I'm constantly telling them stories and narratives. Some of it is even autobiographical at times, so they are getting me okay in that sense.

Although Thomas believed that a pedagogical approach should engage students with the content, he shared that he had a somewhat very "traditionalist" view on his role as a pedagogue in the classroom. He had this to say:

I am a traditionalist about certain issues of pedagogy in that [students] are interacting primarily with me as a pedagogue as opposed to a Power Point or as opposed to just putting something on a screen and turning it on. I do not think that that is of any use to [students] unless I am coming with it.

In order to enable students to interact with the content of the discipline, they must interact with the teacher first, in Thomas's view. Thomas did not believe that it was pedagogically effective for students to watch an hour-long movie or to learn the content via a class-long Power Point presentation. In his class, Thomas revealed: "We might look for ten minutes at something relevant to the class discussion on YouTube or Netflix or some other media, but I am still a big believer of what we call 'chalk and talk pedagogy.'"

Pedagogy as a teaching style. Although the majority of the participants connected pedagogy to a teaching style, the exemplar provided by Eric best captures the meaning of this

sub-theme. Eric perceived pedagogy as his own teaching style that he developed and utilized when teaching the content of biology in undergraduate general education classes to all students. He shared: “I know science; I know science inside and outside, and I can create a scientific content and organize it. I can also teach it. In terms of style, I do not know where it comes from.” Although Eric could not pinpoint how he utilized pedagogy in his classroom, he “was aware of when he entertained students; he knew when they took him seriously; and he was cognizant of when students tuned him out.” When students got disengaged, Eric tried “to shift to another mode.”

The above-mentioned exemplars highlighting participants’ views on the role of the subject matter, curriculum, and pedagogy in teaching content of their disciplines to students and especially the role of the subject matter provided evidence that participants in this study “not only [knew] their content but [knew] things about their content that [made] effective instruction possible” (Grossman, 1989, p. 24). This knowledge enabled them to connect the content of their disciplines with students.

Having ELLs in the Content-Area Classrooms

As their first-year general education classrooms became more and more diverse, participants encountered large numbers of ELLs enrolled in their discipline-specific courses. When acquiring the content of discipline-specific courses, ELLs faced specific challenges as they struggled to acquire the academic language and the language of the discipline-specific courses simultaneously. In spite of the fact that challenges experienced by ELL students also posed difficulties for faculty teaching first-year general education classes, participants loved having ELLs in their classrooms; they were aware of challenges ELLs experienced when

learning the content of discipline-specific courses; and they thought about ELLs and their academic success.

Loving to have ELLs in class and being aware of their challenges. All participants enjoyed having ELLs in their general education classes and were aware of their challenges. Istvan loved teaching ELL students in his classes. He attributed this to the fact that he liked languages, and he was fascinated by the whole process of how languages were learned. In spite of the fact that ELLs struggled with English, he never “talked down to them.” On the contrary, he always used the same standards when assessing them in order to not make them feel uncomfortable or isolated. When ELLs were required to give presentations in his classes, they may have a “very thick strong accent,” but it was never an issue for Istvan.

He fully understood their challenges in regards to writing and expressing their thoughts in L2 because “they were thinking in another language.” Istvan made sure to let students know about the support services available at the university site because students “were not really writing in English but rather translating from their L1.” He provided ELLs with some extra time to complete their assignments because he wanted them to succeed, and he knew they needed this extra time. Istvan also brought up the issue of their socio-economic status as ELLs were coming from educated families in which parents believed in sending their children to get an education in another country. Even if this was not the case, Istvan explained: “I just felt better because they worked harder than everybody else in class did.” Istvan believed that ELLs needed “a little bit of extra attention because they had to learn something in another language which was not an easy thing.”

Istvan also pointed out the difference between learning to comprehend in L2 as compared with learning to write in an academic environment in another language. Istvan would not mind

having all ELL students in his class because of two reasons: “First, they really appreciated an opportunity to get an education, and they showed this appreciation immediately, and, second, they had a respect for the whole system and professors and authority in general.” Istvan found ELLs much more enjoyable to teach than other students.

The most rewarding aspect of having ELLs in class and teaching them was when Istvan could understand that students began comprehending the concepts; when they were doing well on exams; when they showed improvement in their academic writing; and when they were mastering the information. He shared: “When they had these three things, I am like ‘Ok, you know I helped; I was part of it.’” Istvan would not talk to ELLs in their L1 even if he knew it fluently. He explained: “I don't speak to them in their language even if I know it. They are getting this lecture in English by someone speaking English, who is grading their papers in English because, for the most part, they have to master the material in another language.” When students were able to do it, Istvan regarded it as a great accomplishment.

For Thomas, the most rewarding aspect of teaching ELLs in general education theology classes was to be able to show and tell students who were struggling with language and writing that it was possible to improve. Thomas shared that many students tend to believe that “writing is something that is deep inside of them; that it is some kind of an interior knowledge; and that it is something that is given to them by cosmos or something.” However, Thomas tried to encourage students by letting them know that they could learn how to write properly in an academic environment by working hard and by learning how to revise their own work. Thomas was there to assist them, to review their work, and to help them with their revisions; watching ELL students improve was the most satisfying aspect of having and teaching them in his theology class.

In order to improve their academic writing skills, both ELLs and Thomas had to work very hard. Thomas provided his students with a lot of scaffolding via feedback on their papers before their final submissions. His theology class was “a combination of Socratic method working with questions they have and trying to get them to respond and interact orally, but it also had a lecture component on those topics.” Thomas always looked at their papers before students were required to turn them in and provided very comprehensive feedback with a lot of tracked changes. If students needed more assistance, they typically e-mailed Thomas with additional questions or they would stop by his office. Students were then being able to use Thomas’ multiple suggestions and recommendations and revise their papers.

Istvan disclosed that since learning how to write in an academic language and in L2 was a very slow process, many students got disappointed when they did not see the results and improvement in their writing fast enough. This was a frustrating experience for students. It was also challenging for Istvan to explain to students that he was not just a hard marker; and it was difficult to make students understand he believed in them; he believed in students doing a good job; and he believed the next time students would not see so many comments on their papers. Students would actually see a better grade because they were involved in the process of writing and re-writing.

The most frustrating aspect of teaching ELL students for Thomas was being aware that students were struggling and needed help. The biggest challenges ELLs encountered in Thomas’s class were always reading and writing. It was even more troubling for Thomas to observe these struggles as he knew how important the writing skills were in his students’ academic and professional lives. He elaborated:

For instance, the two ELL students that I have right now in my class are in the health sciences major, and you know I am helping them to see why it is so important for them to have these communication skills. I think it is really, really important for them to be able to deal with issues of religion, if they are going to be health care providers.

Eric was also concerned about ELL students who were not doing well and was trying to determine whether it was because of their lack of study, their apathy, or because they did not understand him. It was hard to determine that, so he used his students' facial expressions as a clue. He shared: "When I see a kid who is doodling around with a cell phone, I know this student is disengaged. But when I see a kid taking notes, watching the screen, watching me, but she is not doing well on the test, I worry about her."

Eric encouraged his ELL students to bring their exams to him, to make office appointments with him, so he could review every question with students. Some of his students were reluctant to do this, and he was afraid that he had intimidated them. When some students came, Eric asked them to explain to him their line of thought when they were answering a specific question and got the answer wrong. Eric found this strategy to be very useful for all students and especially for ELLs as it showed students explicitly what their errors were and how they could have corrected them.

Similar to Istvan and Eric, Thomas was willing to help his ELLs. Thomas observed ELL students having specific challenges in his classroom, especially in terms of writing. They felt very nervous when they had to write a five-page paper soon after the first week of classes. Thomas mentioned that he was always very willing to work with these students individually and pinpointed that over the years, he had seen large numbers of students who experienced problems with their writing, and they were not necessarily ELLs. He elaborated: "As a matter of fact, there

are students that English is not their first language who write even a lot better than students whose only language is English.”

Thomas was very well aware that many of his ELL students were experiencing many challenges, and they did not have any support at home. Therefore, Thomas believed that ELLs “needed to involve themselves in the university services and needed to involve themselves with [him] because he was willing to sit down with them and help them with the issues they face in relationship to writing, reading, and comprehension.” Although Thomas admitted that he was not expert in the areas of writing and reading, he felt confident in helping students because he published and wrote many articles. He was proud of his ability to show students how they could revise their work. Thomas had this to say: “I am able to show students how they can take what they have, examine it in terms of its grammar and syntax, and fix it.” Thomas noticed that many students were overwhelmed with the large number of tasks and assignments, so he tried to show students how they could show their own voice and avoid plagiarism by creating assignments that were very specific and intricate.

Jocelyn also loved having ELLs in her class “due to her own personality.” Even though she did not speak any languages other than English, she always loved other cultures. She revealed:

My best friend is Lebanese. In college, I was the only American there. I think because I grew up in a town of eight thousand people, everybody looked the same and looked at anybody who wasn't like you and judged. Once I came past that, to me, other cultures are fascinating, the food is fascinating, who they are is fascinating, so I love to learn from other cultures; it's a passion of mine.

Jocelyn welcomed people with an accent and expressed that she never looked down at them and never got frustrated with them trying to communicate. She echoed the feelings shared by Barbara in that Jocelyn as well as Barbara understood struggles ELLs experienced when they had to present a speech in front of the entire class in their non-native language. She had this to say:

I teach public speaking where many of these students have to get up and present. You can tell when they start to think in English. And when you are translating, that is tough. I feel so badly for a student who has to translate everything. I feel badly for them because what a struggle that must be.

Jocelyn observed that when NES had to stand up and give a speech, it was a very dreadful experience for them. However, this was a far more grueling experience for ELLs who had to translate and select words that would make sense to a large number of people in class under a lot of pressure and anxiety. Jocelyn “was humbled by their effort.” She encouraged her ELL students by accepting and welcoming their accents. She shared:

I tell my students: whatever you have and whatever you bring to the table, use it. So oftentimes an accent is darling; it is interesting; it is different. You have got that going on for you, so use it. Teach your audience your dialect or your accent. So put that on the board: these are the points we are going to cover. If they see and hear you, they will make sense of it, and they will understand exactly where it is as you go forward.

Jocelyn made an interesting observation in regards to different ELLs she has been teaching in her public communication classes over the years. She reflected that she had only a handful of students whose language proficiency was not at the level where they could function in the classroom, but the rest of the ELLs she had taught were fine. All they needed was to start

feeling confident about their abilities to perform in her class. She elaborated: “After they get through my first three speeches, they get comfortable. These experiences loosen them up and they realize, ‘No, I can do that.’” She attributed this development in her ELLs’ level of confidence to her assignments that were designed to promote self-assurance and enabled students to start believing in themselves and “having the confidence to go forward.”

For Jocelyn, the most rewarding aspect of having ELLs and teaching them in her public communication classes at the research site was that ELLs brought new points of views and new perspectives. In regards to difficulties ELL students experienced in Jocelyn’s class, the biggest challenge was the organization of their speeches. Jocelyn tried to teach them how to write an outline in a very Westernized way or through linear thinking; however, students wanted to do it in the way they had been taught in their countries. Jocelyn was not sure how she could make this learning process easier for her students, so she tried to employ the Power Points she created, her speech formula, and the book she had written. As she clarified: “If there is any opportunity that a student can present that can help make this easier or better, I will take it and I will try to use it to help them.”

Finally, Barbara also loved having ELLs and the diversity they brought to her biology classroom. She was always very thoughtful of the challenges ELLs faced in her biology class. She explained: “I am always considerate. I say: ‘you have two jobs; you have one to master English and you have to learn biology, and so I sympathize with them.’” Barbara motivated and encouraged her students to utilize all resources available at the university: “I do tell them we have resources to assist, and I tell them they will know twice as much. I speak many languages too, so I can say, ‘Look! In the end, you will profit from having learned more; your brain will grow.’”

The most rewarding aspect of teaching and having ELLs in her biology class for Barbara was the fact that ELLs “brought a bit broader dimension in class discussions.” She was happy to have these students in her classes. Barbara motivated her ELLs by letting them know about their strengths – e.g. their familiarity with the metric system – and that they would succeed in sciences because it was a human endeavor that crossed boundaries and people from many different cultures worked together and made discoveries in sciences. Barbara shared that having ELLs in her class “made a richer classroom.” Such cultural and linguistic diversity produced a positive impact on class discussions. Barbara mentioned that not having full proficiency in English was not really detrimental to these students’ success in her class, but, for example, the math phobia was.

The most frustrating aspect of her experience of having and teaching ELLs in Barbara’s biology class was to observe that students continued struggling with their reading and writing even in the upper level courses. Barbara felt sad that students did not read enough to succeed in her class. She commented: “I just wished they read more or at least read what I gave them.” Barbara also was not happy about students not buying textbooks. She once again commented that some of the difficulties experienced by ELL students were not necessarily ELL related. She felt that not reading a book was harmful to students’ abilities to acquire the content of biology. She had this to say: “If you read the whole book, there would be more chances that you would remember things that I have not taught or remember what I have taught, and it will also increase your vocabulary.”

ELLs were doing extremely well in Barbara’s class even though they were struggling by making tremendous efforts in her class and every other class they had been taking. Barbara facilitated her ELLs’ academic success by providing them with a lot of guidance and scaffolding.

She let them know that it would take ELLs a lot of time to master the language, but they would succeed in the end. Barbara observed that students, who had not been doing well in her classes, generally failed to take advantage of the help she had provided and started the completion of their assignments late. When reflecting on this experience, Barbara contemplated if she should make the attendance of her ELLs to the Learning Center a mandatory requirement or not.

Participants enjoyed having ELLs in their general education classrooms. They loved the diversity ELLs brought into their first-year general education classrooms. Participants were also aware of the challenges ELLs faced in discipline-specific courses; they empathized with ELLs; and they were eager to help ELLs in their challenging endeavor of acquiring the content of their disciplines.

Thinking about ELLs and their academic success. The analysis of the data revealed that participants were thinking about ELLs enrolled in their first-year general education courses. For example, when pointing out ELLs' distinguishing characteristics, Istvan recalled: "I like teaching them because they seem to follow directions better, they seem to see the value of asking help, and they are just more enjoyable to teach." Istvan shared that ELLs responded to feedback much better than other students because they wanted not only to improve their grade but they were also motivated to improve the language, and they wanted to master it. During the second round of interviews with the researcher held in December 2013, participants appeared to have a heightened awareness about ELLs enrolled in their general education classes and their academic success. Istvan had this to say:

I was thinking about them to heighten my awareness because they are in my class every semester; to consider that they are different than the other students because they have

more motivation; and to put some spotlight on them because these students really want to learn and improve their English.

During the second interview with the researcher in December 2013, Istvan highlighted the fact that ELLs enrolled in his class did much better than at the beginning of the course. The level of their motivation was much higher, and they really wanted to improve. ELLs wanted to know how they could have written their exam essays better and approached Istvan with questions. Istvan provided them with a sample of a strong essay, pinpointed their mistakes, and explained in detail what key information they missed on their final exam. He stated that native speakers did not exhibit the same desire to improve.

Very similar to Istvan's experience, Eric was also thinking about whether he was getting through to his students, especially ELLs. During his follow-up interview with the researcher in December of 2013, Eric noted that the ELL students enrolled in class improved their academic performance; his observation mirrored the one made by Istvan. The reason for such an improvement was due to the fact that ELLs took into consideration Eric's feedback and made an effort to revise their reports and correct the errors. In fact, some of these ELLs "not only tried to correct every single flaw, but they also made appointments [with Eric] and brought their papers to him for a review before the final submission." Therefore, two of these students received grades of 90 on their second drafts because of their motivation and desire to learn and improve.

Thomas also stated that conversations about ELLs reminded him about the issues ELLs had been experiencing in his class. He also added that in the research site, located in a geographic area that is so culturally and linguistically diverse, "one needs to be very attentive [to ELLs and their issues]." During the second interview with the researcher in December 2013, Thomas emphasized that what he did for his ELL students as well as for other students taking his

first-year theology class was to provide them with detailed and specific feedback on their papers and gave them an opportunity to improve their writing. As he mentioned previously, Thomas assigned the first writing assignment to his students very early during the first week of classes. Later on, students also had to write 300-word essays on their exams. The early writing assignment allowed Thomas to identify students, both ELLs and native speakers, who had experienced problems in their writing. Thomas provided extensive feedback to their writing in regards to syntax and grammar and let them re-write their work using feedback he provided. He also made students aware of the support services provided at the university. Thomas was happy to report that there was a great deal of improvement in papers of those students, both ELLs and NES, who took the opportunity and revised their writing.

The first interview with the researcher held in October 2013 made Jocelyn more cognizant, mindful, attentive, and sensitive to the needs of ELLs. She had tried to do everything she could to be sensitive to learning about social and cultural differences. Jocelyn revealed that “perhaps, our conversation in October added another dimension and a more heightened awareness about issues faced by ELLs.” She suggested that the conversations enabled her to start thinking where and what kind of gaps ELLs had experienced and how she could better connect the content of her class with these students.

Jocelyn recalled a conversation with one ELL student during which Jocelyn asked the student how she could have made her class more effective. The ELL student had a suggestion to develop an activity on APA format to help ELL students grasp this very important class concept. As a result of engaging the student in her own learning, a group activity was created during which students had to identify the errors made by students when citing sources and present them to their classmates. This example shows how Jocelyn and her students have been involved in

reflection in action to make sure the APA challenge experienced by ELL students and all other students in her class has been addressed.

During the second interview Barbara had with the researcher in December 2013, she articulated that she did not observe a correlation between being an ELL student and doing poorly academically. Instead, Barbara noted that academic success or failure of ELL students was related to their motivational attitude and the amount of work and effort they put into their learning. ELLs who were motivated, worked hard, and used academic support services provided at the university showed great improvements and were satisfied with their grades and overall academic performance.

Barbara further elaborated on specific challenges ELLs had in her class that were related to study skills. She had this to say:

It is their approach to how [students] get information. Some definitely like to just passively visualize and see. Others are not; they are reading, and they are inquiring from reading. I have seen also that students could have gone and gotten information, but since nobody told them how to do it and they did not quite know how to do it on their own, they just ran out of time.

Barbara observed such a lack of study skills not only in ELLs, but all other students. She recounted one experience:

Students will say: 'It is tough; I Googled it, but I didn't find anything.'

Then I say: 'Let's see; what did you Google exactly?' I mean lo and behold; you do not even know how to use key words appropriately. Therefore, they Googled just by putting my question in Google thinking maybe that I took the question from somewhere and the answers were right there in Google. I explained to them that if they had just put in

solution making, they would have found the page that explained everything they wanted in a second. They are not necessarily ELLs who do not know how to look for a topic, how to do research, how to Google, and who do not have any library skills.

In the context of this sub-theme, it is necessary to discuss the issue of the researcher's effect in qualitative research. Whether the researcher shares specific characteristics with participants such as being a member of the same community – for, example, a faculty member at the university – or he or she is an outsider to the group of participants, the researcher's effect is an important aspect of the qualitative study (Dwyer & Buckle, 2009). Therefore, it is plausible to assume that conversations with the researcher, an insider to the community of participants in the present study, during the first round of interviews might have impacted their conscious awareness about ELLs enrolled in their first-year general education classes. The above-mentioned exemplars provided evidence that conversations with the researcher made participants more cognizant of the challenges ELLs faced in the first-year general education classrooms when acquiring the content of discipline-specific courses.

Engaging ELLs with the Language of the Discipline

Each participant in this study was an expert in his or her content area as evidenced in their educational credentials. Participants were fully aware of challenges the language of their discipline might pose to ELLs enrolled in their general education courses. Although participants did not possess any prior formal training in curriculum and pedagogy, their past experiences as learners, their reflections on their teaching, their sound knowledge of the subject matter, and their deep passion, commitment, and devotion to teaching and their students, enabled them to customize their instructional methods to connect the content of their disciplines with ELLs. Participants made sure the content of their discipline-specific courses was comprehensible to

ELLs; they taught the vocabulary of the language of their disciplines to ELLs explicitly; they employed best instructional strategies when connecting the content of their disciplines with students; they addressed ELLs' culture; and they did not view ELLs' status as a hindrance to student academic success.

Making the content of the discipline comprehensible to ELLs. In order to make the content of their disciplines comprehensible to ELLs and all students, all participants utilized an array of scaffolding instructional strategies to ensure that ELLs could acquire the content of their disciplines more effectively. Istvan provided students with a large number of various examples. He shared: "There must be many examples because some of the examples chosen might not be assimilative. Therefore, you try to give another example and another example and another example." He elaborated: "And at elementary level, it is like: 'Okay, here is an example of altruism or a helping behavior. Let's talk about it.'" Istvan recounted an experience of explaining the concept of a *dissociative identity* or *multiple personalities*:

Here is an example of what it is and here what it is not. It is not schizophrenia as everyone thinks. 'Have you ever been in a play? Have you ever acted a part? Have you ever felt you almost are that character?' Okay. There is a way people have of making themselves two characters. This is not psychotic. It's not unusual. It's what people do to protect themselves and it is usually a result of trauma.

In addition to providing a very detailed explanation of what the concept meant, Istvan reinforced this activity by showing students the movie *The Three Faces of Eve* and, when it was necessary, provided even more examples. The quantity and the quality of examples was what enabled ELLs to grasp the concept of a *dissociative identity*. Examples were a key instructional strategy in Istvan's teaching approach because students were able to relate to examples. In

addition to providing a variety of specific examples, he also used film clips from YouTube, Netflix, and Power Point slides. In order to make sure students understood the material, Istvan utilized a Socratic method by asking students questions and by requiring them to provide an example of their own.

He also mentioned exams as a more traditional way of assessing students and finding out whether they learned the material or not. At the end of each oral presentation that students were required to do in class, Istvan always had a question for a presenter to ensure that the student knew the information he or she was presenting. If students continued having problems understanding the material, Istvan found different examples and kept trying to make the concept comprehensible to students. Istvan sympathized with students who did not get any points on their essays on the final exam because they did not understand the concept. He knew that students would be traumatized by their grades.

Eric shared that he encouraged all his students including ELLs to take notes and then re-write them. He explained:

Take your notes back at night, open up a textbook and cross check: what does the textbook say and write it in the margins. I tell students to look at their textbooks because there are margins in them in which they can write answers. You can put the content from the notes into the textbook's margins, and you can also put the content of the textbook into the notes. Then writing becomes active.

To ensure that students could understand the concepts related to his discipline, Eric used many examples and definitions. He also asked students to provide examples in a similar way Istvan did in his psychology classes. Eric shared:

For example, I will say: ‘The carbon hydrogen bomb is a covalent bomb. Give me other examples of covalent bombs.’ Students will say: ‘Oh, the carbon nitrogen bomb or the oxygen hydrogen bomb because they’re all examples of covalent bombs.’ When students were able to provide different examples of a concept or concepts they were studying, it was a sign that they began mastering these concepts.

Eric pointed out that in order to make this complex content of his discipline comprehensible to all students and especially ELLs, the language he used to explain the material had to be modified. He recalled:

I try as much as I can to use many examples and simplify the explanation. For example, [I introduce] the concept *chemical reaction*. What is a chemical reaction? This is how I explain it: Here is molecule A, and here is molecule B. They collide. If they change in that collision, you have a relationship or a reaction. If they bounce apart, there is no reaction.

Repetition was also cited by Eric as a powerful technique to deliver the content of biology to ELLs. Repeating the same principles but in different ways by adding complexity to each level was the key of this strategy. Eric shared:

I am going to be saying the same things over and over again that I have been saying for the last nine weeks: hydrogen bond, electronegativity, polarity. I try to repeat the same lessons, and so every time you explain a new concept, you take it to a new level, and add some complexity. Glucose does this because it is a polar. Remember we talked about polar back here.

Barbara utilized strategies that would be beneficial to all students in her class, not only ELLs. She utilized funny videos about biology and song spoofs to make the content of biology

more relevant to her students. She shared her own experience of using songs when learning English as L2. She recounted: “One reason I learned English very well was not because I lived in a bilingual country but because of the influence of American music and because vocabulary in music is very powerful.”

Barbara used videos and songs in her class to reinforce concepts that had been taught in class. Barbara would alter the way she presented these videos or songs to her students: “Sometimes I just share these videos so that I do not need to take class time.” She also showed short five-minute video clips from news reports on biology to her students at the end of class. These clips allowed Barbara to teach vocabulary to her students: “If there was a term used in the clip that was special, I would usually paraphrase it in a different way. This way students got exposed to the term and my paraphrase, and both words were explained to them.”

Barbara taught her students to look up the definitions of new terms and concepts; she paraphrased the terms; she provided students with analogies and synonyms. She explained: “I do break down biology words so that [students] start learning them, and they start learning to dig deeper and look at words in a deeper terminology of language.”

Barbara knew if her strategies worked because some of the words and root of the words would surface again in the course content. When that happened, Barbara asked her students what that word meant. She observed that by the end of the course students would recognize certain word roots and the meaning of the words. Barbara commented that the technique of breaking down the words in biology was very useful because it provided students with knowledge as to how words were built and the meanings of these word roots. Barbara also required students to create their own words with a particular word root so that students could get into a habit of breaking words into their parts.

Thomas reiterated that since theology is a very conceptual subject, ELLs as well as other students who learned to memorize and give back information, often struggled with the content of theology. Theology is “hinged” on metaphorical concepts; therefore, students are required to pull out the meanings and interpret these concepts rather than just to regurgitate information back. Helping students understand a metaphor was not an easy process, reflected Thomas, as the success of this process depended upon whether students were exposed to metaphors in their first language or not. In order to comprehend the content of theology, students had to be able “to dwell in the symbolic nature of language,” but for many of them it was very hard. However, Thomas had a lot of success teaching his ELLs to understand the metaphorical concepts of theology by writing down unfamiliar words on the board and explaining their meanings or teaching the vocabulary of theology explicitly. He also continuously activated their prior knowledge by “going back to former concepts, by looping back, and by repeating.”

Thomas also encouraged and motivated his ELLs to participate in class as he perceived interaction to be extremely important in teaching the content of his discipline to ELLs. He shared: “Even if a student is quiet, I’m going to make [him or her] participate in my class, so [he or she] is going to have to talk. I also teach students to not only interact with me, but they have to interact with each other.” To ensure interaction would take place in his class, Thomas arranged for his class to meet in a seminar room instead of being held in a typical classroom. He underscored the difference between having a class in a seminar room as opposed to having it in a classroom: “When freshmen and sophomore students are sitting at a table of equals as opposed to sitting in a classroom with a teacher who is standing, it changes the dynamic of the classroom. As a result of that, there is certain decorum that students have to keep.” Thomas further

commented that he was very satisfied with the level of interaction his students and he had among themselves.

Jocelyn had been using an array of different strategies when teaching the content of her discipline to her students ranging from group work, individual presentations, making students answer their own questions, providing feedback to their peers to learning how use APA style. Her class was divided into two different parts or “structures.” During Part 1 or the discovery phase, students had to understand how they could connect with their audience more effectively by completing a self-inventory. Part 2 or the construction phase was a stage during which students learned about the organization and logic of speeches. Jocelyn required students to keep a notebook during the entire course in which they had to complete various activities. This notebook consisted of five parts, and Jocelyn provided handouts, Power Point slides, and other materials that correlated with each part.

Students had to deliver speeches “live” in front of the audience of their peers; they got feedback both from their peers and Jocelyn; they were actively involved in the process of their own learning. Jocelyn created and utilized videos with a demonstration of a sample speech so that students could see how the principles of the speech delivery were implemented in real life. In order to create such a video, Jocelyn had “to stay up all night long,” but it was worth it. Jocelyn also developed a website for her students so that that they could have instantaneous access to a variety of activities and also because she wanted to meet the needs of different types of learners and utilize technology in her classroom.

Students showed that they had mastered the concepts taught in Jocelyn’s class through delivery of a dynamic speech. As Jocelyn revealed:

I am marinating them for audience analysis and for considering their audiences first.

Then I have to see whether they did indeed consider their audience and whether they got over their own egos. I grade them using the rubrics for the speech that I developed, and so that is how I know whether they did a careful audience analysis or not. In addition, they grade themselves, their buddy grades them, I grade them, and they have to videotape themselves.

Jocelyn was very proud of her students' efforts and accomplishments and was confident that her own efforts in teaching the content of her discipline to her ELLs were effective. She emphasized her utmost dedication and love for her ELLs: "If [students] come to me and they are willing to work, I have sat up until midnight working with a student to get him to outline his speech correctly, so I know my method works."

Participants, in the words of Vygotsky (1978), experts or more capable others, utilized an array of scaffolding instructional strategies to connect the content of their discipline-specific courses with ELLs. Through these scaffolding means, participants mediated the language of their disciplines to students assisting ELLs in their daunting task of simultaneous acquisition of the academic language and the language of the discipline-specific courses.

Teaching vocabulary. When reflecting on specific characteristics of the language of their disciplines, participants mentioned vocabulary as one of the most challenging aspects that posed an obstacle for ELL students and all other students when they learned the content of the discipline. Therefore, the majority of the participants taught vocabulary to students explicitly.

In addition to providing students with a multitude of examples on the topic, Istvan also taught students the vocabulary with which they needed to be familiar in order to understand discipline-specific content of psychology. He elaborated: "I use analogies. Sometimes I will say:

‘Here is a new word *vertical perception*. Look at the beginning of the word - *veritas*. This word means *truth* in Latin. Therefore, this means *accurate perception*.’” To facilitate students’ mastery of this concept even more, Istvan introduced an antonym to the concept of *vertical perception* which was *illusion*. Istvan believed in using analogies and word roots as valuable instructional strategies, especially useful for ELL students. He explained: “[Students] will get it. They will say, ‘Yes, I see the beginning of the word.’” Students were able to relate to this technique because the origin of the word was related to their culture, and they were able to understand it so they would not fear this unknown term. Istvan explained that people could be afraid of some technical terms, especially when it comes to the parts of the brain. He brought up an example of the term *amygdala* which sounds like an almond. In fact, the part of the brain called *amygdala* has a shape of an almond. It was very important for ELL students who could relate this word to Spanish, Portuguese, and Italian. It allowed them to describe what they saw, but in another language.

Istvan encouraged students’ interaction by letting them know that they should form study groups. Although it was not a new technique, Istvan believed in its worth, especially in regards to ELL students. He pinpointed that when studying together students could question one another, test one another, and communicate new information to one another. Istvan explained: “In some schools, you form groups because some people might know more than others and you can quiz each other.” However, he noticed that his students were not so willing to interact.

To compensate for students’ unwillingness to interact in class, Istvan suggested they use flashcards to learn new words. He emphasized that this technique was very useful for all students, but particularly for ELLs who needed to learn new vocabulary and new academic vocabulary at the same time. He had this to say:

[Students] have to put on one side the word and on the other side, a brief definition of this word. Once they have learned the A side and the B side, they should put that away because they have learned it. Don't waste your time. The night before the exam, there are two piles. You know the big pile, but you do not know the little one. That's the pile that you want to master the night before the exam. Don't waste your time studying what you know.

This technique was an excellent tool for those students who preferred to study independently because in this case "students did not need anybody else to help them study. They could have their roommates or their mothers help them by just holding up the cards with words." From the psychologist's point of view, it was the method of association or people connecting certain concepts in their brains.

Thomas also taught vocabulary to his students in general education theology classes explicitly. One of the key distinguishing characteristics of the language of theology is its specific vocabulary, and students need to be familiar with this vocabulary. To facilitate their mastery of this unique discourse, Thomas wrote the "big" words he had been using in class on the board. He further elaborated:

For example, the concept [students] had to understand was the concept of *universal revelation* or God reveals God's self in a universal way and what it meant. Therefore, I told [students] that God's universal revelation is *ubiquitous*. I wrote the word *ubiquitous* on the board, so I was helping them to learn big words.

But then I also wanted them to understand what *ubiquitous revelation* meant. I explained to them that this revelation was impregnated in nature, it was everywhere, and it was all

over the place. It meant that God was talking back to [students] in their everyday existence.

Thomas provided another example of how he taught his students “big” words such as *unequivocally* and *equivocally*. He had this to say: “Because [students] have to learn to parse concepts, they have to learn to begin to pull out the meaning of a concept; therefore, they need to understand the difference between *unequivocally* and *equivocality*.” Thomas explicated that he had to teach these words because students needed to know “the tools of theology.”

In addition to teaching the discourse of theology by writing certain words on the board, Thomas also employed a variety of examples to further clarify the meanings of unfamiliar concepts and words for ELLs. Story-telling was another instructional strategy Thomas utilized when delivering the concept of his discipline to his students. In order to show to his students differences among various language registers in theology such as propositional and metaphorical language uses, Thomas set up a continuum on the board and illustrated how language operated in this continuum. He explained:

I will show [students] that this type of language is much more definitional or language that is much more scientific. It really wants to have a one-to-one relationship. This language is purposely metaphorical, and I tell [students] in the language of theology, there is this continuum of language. It is not just all one or the other; it often is somewhere in between. I am getting them to see that and to show them how that operates by giving a lot of examples.

Biology also has a unique vocabulary that distinguishes it from other disciplines. When acquiring the content of biology, ELLs are not so different from other students, NES, because

none of the students have ever been exposed to this “language” of biology. As Barbara explained:

We are going to teach students this language. As long as they are willing to learn, whether they were very fluent in English or whether they were just learning English, these facets of biology are unique, and we will be teaching them.

What ELLs also had to do was spend more time mastering the language of biology.

Barbara explained that in her first-year biology lab course students were required to show that they mastered and understood the structure of scientific communication through lab reports. The assignments were not designed to showcase students’ knowledge of English; therefore, in regards to errors in grammar and mechanics, students were asked to attend support services provided by the Writing Center at the university and learn revision techniques.

Barbara did not expect her ELL students as well as all students in her class to “produce writing masterpieces,” but they had to master reading. She used scaffolding when ELLs needed help with finding synonyms for some words in English that they were not familiar with. She explained: “My general rule for [students] is: if it is a biology word and you forgot what it means, I cannot help you. If it is an English word and you just need a synonym, I will give it to you.” Barbara observed that students needed help with discerning meanings of certain words more frequently than before. That was why Barbara let students know what an important role vocabulary played in biology, and that they needed to increase their active vocabulary by reading. Unfortunately, students sometimes did not even pre-read the experiments they were going to do prior to coming to class. Therefore, Barbara believed the difficulties ELLs faced in her course were not so much related to language issues, but to the lack of effort to try and read required assignments.

She encouraged her students to believe in themselves. Barbara had this to say:

Yes, learning English is an additional challenge for you, but you are not the only one.

This is how I started; this is how everybody starts here. By the time you are a senior, you will know more biology, and you will be more comfortable with your reading and writing.

Barbara introduced her students to the concept of scientific communication. Scientific communication entails knowledge about formatting, citing, presenting results, making inferences, maintaining a discussion, drawing conclusions, and discussing results. Scientific communication utilizes a passive voice, so students have to be aware of this difference between writing in other disciplines and in biology. The use of the first person is not allowed in scientific communication because the purpose of scientific communication is “to convince people in the validity of your findings not based on who the author is but based on the power of your results, so abstraction from this process was needed.”

Both Jocelyn and Eric also discussed vocabulary as it pertained to their disciplines with all students enrolled in their general education courses. Eric paraphrased certain words with which his students were not familiar while Jocelyn explicitly pointed out to students specific terminology utilized in communications that students must be familiar with during peer review activities.

Participants taught the discipline-specific vocabulary explicitly to ELLs. Teaching of the vocabulary of the language of their disciplines focused on the morphological structure of words or breaking down words into prefixes, suffixes, and roots; on motivating students to use flashcards to learn new words; on encouraging study groups to learn unfamiliar vocabulary; and on paraphrasing certain unknown words. These instructional methods facilitated language

acquisition for ELLs and acquisition and a mastery of the language of the disciplines for all students.

Employing best strategies. All participants utilized the most effective strategies in their discipline-specific content area classrooms when connecting the content of their disciplines with ELLs and all students. These strategies included: providing a large number of examples and detailed explanation of concepts; encouraging students to take and re-write notes; using language that was modified to explain the material more effectively to all students, especially ELLs; utilizing repetition; employing different media such as videos and song spoofs; providing detailed feedback on student writing assignments; teaching students how to look up definitions; paraphrasing; providing synonyms and analogies; teaching students to understand a metaphorical language used in theology to assist interpretation; activating students' prior knowledge by constantly reviewing concepts taught in class; providing explicit instruction about the characteristics of scientific discourse; working in groups; providing peer feedback; and using story-telling.

Istvan reiterated that one of the best strategies to deliver the content of his discipline to ELLs was providing them with a variety of examples. He stated he wished he could have made students write a short paper on every concept to ensure their understanding, but it was not possible due to time constraints. He discussed the issue of interference of students' L1 in the process of remembering and understanding. He had this to say, "I am sure when you speak another language, there's interference that does come with the new material."

Another beneficial strategy was providing ELLs with specific feedback or "getting them to understand where the problem was in their own writing." Teaching students explicitly and showing them their specific errors and methods to revise these errors were beneficial to ELL

students, according to Istvan. Utilizing these strategies with ELLs would encourage and enable them to be analytical about their own work. Simply practicing some skills or any other rote type of learning and teaching would not be beneficial to ELLs until they could fully understand the nature of their difficulties.

For Eric, the best strategy to teach the content of biology to his students was by using analogies. He provided an example:

Why is a carbon hydrogen bond so energy-rich? Think about a mouse trap. When you spring the mouse trap open, you have to put a lot of work into it. You have to put the cheese on it. It has now got a lot of potential energy. This is a carbon hydrogen bond. If you break the carbon hydrogen bond, BANG, you release all that energy.

In addition to the use of analogies, Eric placed an emphasis on a two-way interaction as the best approach to teach all students including ELLs. He explained:

A two-way interaction with a student is where I teach and they learn. I cannot connect with students who have an attitude of ‘while I sit here and play with my phone, you teach me.’ But the student who is sitting there listening and writing and asking questions, I know he or she is doing his or her learning part. Therefore, I am doing the teaching part and he/she is doing a learning part. If we can combine these two, I think this is the best approach.

Eric also felt that he should make the content of his discipline relevant to students’ everyday lives. He provided the following example:

You know you are all here at 10 o’clock in the morning. I know you all had a piece of Halloween candy because it is all over the place. Think what is happening to this candy right now in your stomach. The candy is going through an acidic lemon juice kind of

environment. What would that do to proteins? In another hour, that candy is going to be in your duodenum in a different kind of environment, so I try to give them everyday things to think about.

Eric was assessing students to ensure the strategies he utilized in class worked. He evaluated the results of the exams he administered in class, quizzes, clickers' answers, and the writing projects. In regards to the use of clickers as an instructional strategy, Eric clarified:

There is a clicker question every day. Depending on the class, students get four or five clicker questions every class. I never announce them. When a yellow and black slide comes up, students know this is a clicker slide. They click their answer in, and I do not announce the question. The question comes from a previous slide. They have five different choices as answers, so students have to pay attention. These are all bonus points at the end of the semester.

When the researcher asked Eric to name the most effective instructional strategy to teach the content of biology to ELLs during the first interview in October, he denoted using analogies as the best instructional approach. Interestingly, during the second follow-up interview, Eric mentioned that the best strategy to use when teaching ELLs in his biology class was “to get [students] engaged in the lecture by asking questions or answering questions.” He explained: “I will ask questions. If I see that [students] can answer them or they might bring up their questions, I know that things are going well.”

In Thomas's view, the best strategy to teach the content of his discipline to ELLs was “to communicate to students that he deeply cared about their educational and learning process; that he was fully committed and cared about them; and that he was willing to help them in any way he could.” He also stressed the importance of letting students know and understand that they

were going “to benefit from coming forward and seeking help.” Thomas also pointed out the importance of activating students’ background or prior knowledge of the topic. He stated that every class in his department starts with an overview of the previous course, so students learn to see the connection between what they have learned already to what they are currently learning and how this new knowledge will help them later in learning new material.

In regards to instructional strategies, Thomas stressed the worth of study sheets he distributed to students in his classes. He had this to say: “These study sheets do two things: direct [students’] reading and guide them conceptually in terms of what they need to know for the class.” In class, students wrote their class notes on their study sheets because they knew that these study sheets “were a key to their learning because [students] were going to see all the questions on their exams and quizzes.”

Jocelyn disclosed that the best strategy to use with ELLs was to make them fully engaged with the content of the class. Jocelyn shared that the way she had broken her class into two parts, the kind of activities she used, and the personal and enjoyable learning environment she was able to create made her students engaged in their own learning process. Such engagement enabled them to master the most difficult concept of the language of communications, i.e. organization. She commented that the nature of her class activities and the way she presented them to students made this “learning of her discipline” possible, and “the bulb came on.” As her student shared: “Before I took your class, I never had to do the audience analysis. Now, I always ask myself: ‘What do I want to say? Who am I saying it to? and Why should it matter to them and me?’” Jocelyn elaborated on this student’s comment: “Now, this is my student’s process, and it has transformed everything about how she communicates.” Jocelyn felt her “students were connected with the content, and the delivery principles and the speech organization were that necessary

preparation that helped to lay the foundation of the class and pave the path to her students' success.”

Barbara believed that the best strategy to use when teaching the content of biology to ELL students was to provide students with clear expectations and guidance. Barbara elaborated:

After this lab occurs on Thursday and Friday, a Blackboard announcement goes up reminding [students] what test they should review for next week. This announcement goes up every week; it is preset. The handout has been already preloaded. It tells [students] what to do, it reminds them to have things available as early as possible so that students can schedule.

Encouraging students and motivating them was another technique mentioned by Barbara. She explained:

When they say, ‘This is difficult,’ I say, ‘Yes.’ I also tell them this class is not fair for everyone because some students come in with already a lot of biology, and I am asking you to reach this level. So you will have to do a little bit more, but once you get there, you will have to do the same amount of work as everybody else.

Barbara had a very personal way of approaching students, chatting with them, listening to their stories so that they did not feel isolated. She wanted to make sure they would feel that they were contributing to class and they felt included.

Barbara believed that engaging with ELLs was the most effective approach to teach the content of biology to them. She explained: “Once you engage with a student, they mind less having to look up and learn a few complicated words to get the message.” She shared an example of how she used a high level of academic language for the test questions, and it created a certain challenge for all students enrolled in her biology course, both ELLs and native speakers. Barbara

had doubts as to whether she should stop using these kinds of words or continue using them. Taking into consideration that students needed to be exposed to biology vocabulary, Barbara made a decision to carry on with using academic words on her test questions and exams.

Barbara shared that treating ELLs separately in the classroom by giving them different assignments or by making a special class designed just for them was the least effective approach in teaching ELLs the content of biology. As an instructor, Barbara always tried to make the content comprehensible to her ELLs, but that she “would never remove anything from the content and rather add some things that draw their interest in the content of biology such as a cultural reference or a linguistic reference.” One of her instructional techniques was to use geography and cultural cues because all were related to language, and adding content that somewhat “spoke” ELLs’ language made them more motivated and interested in the learning process. Barbara believed that:

ELLs should be included into a group; they should feel that everyone’s learning was integrated; they should work in groups so that ELLs have an opportunity to mingle with other ELLs and native speakers; and that they should feel that everyone has a place in the classroom.

The results of the data analysis provided evidence that participants employed an assortment of instructional strategies in their general education classrooms to teach the language of their disciplines to ELLs. Interestingly, in spite of the fact that participants taught different content-area disciplines and the distinguishing characteristics of the languages of these disciplines vary to a certain degree, instructional techniques participants utilized in their classrooms were very similar. Whether they used different media or provided students with study

guides, all participants relied on interaction between the teacher-expert and the student to connect the content of their disciplines with ELLs.

Addressing students' cultures. Participants in this study facilitated students' acquisition of the content of their specific disciplines by addressing students' cultures and by providing culturally-sensitive and context-rich cues. The exemplars provided below best speak to the sub-theme of Addressing Students' Cultures.

Istvan was aware that due to cultural differences, some of the ELL students in his class were hesitant to establish direct contact with him. Therefore, he tried to "break that barrier a little bit" by asking them about their culture to make these students feel "he was a person," not just a professor. He recalled:

Today a student was presenting in class, and he showed us a slide of Mecca. He is from Saudi Arabia. So he said this is Mecca, and this piece goes around a Hodge. I stopped him and said: 'Okay! Can you explain to the class because no one is going to know that, no one is going to know what that is?' He came after class, and he said: 'Oh, thank you for making me explain; I didn't know [students] did not know that the Hodge is the pilgrimage that you have to make once in your life.'" So right away now there is some rapport going on.

Istvan thought faculty did not try enough to take their time and talk to students, so breaking this formal barrier between a student and him, motivated this student to like the class and introduced him to the American culture in which there is not such a degree of formality between students and instructors as in this student's culture. It was very important, according to Istvan, to show the ability to relate to someone's culture. This student responded very well to Istvan's attempt to establish a close relationship. Instead of Istvan's explanation of what a Hodge

was, this concept was explained to students by their own classmate. It benefited all students in class, and it showed the ELL student that his culture was interesting and relevant to everyone in class. Istvan added that the classroom in which ELLs were enrolled had many opportunities for learning about different cultures by asking students about their religion, places they came from, places they traveled, and other examples.

Being well aware of the possibility to encounter certain ethnic groups in her classes including, for example, speakers of Haitian Creole, Cuban students, or students from other countries, Barbara made sure to make cultural references whenever it was possible during teaching new vocabulary words or concepts. She explained: “If a vocabulary word I am trying to teach is of a French origin, I will say, ‘This word is similar to this French word which some Haitian students will understand.’” Although such a cultural reference could not be understood by all ELLs, students realized that Barbara spoke a little bit of French and a little bit of Spanish which “made them feel at ease and drew them in.” She commented that she did not know Slavic languages enough to maintain a more effective conversation with her students from Eastern Europe. However, she was able to make a small talk about their language and culture. Barbara revealed that she would always ask her students where they were from, and students had to introduce themselves. Barbara commented that such a rich multicultural environment enabled her to include students from all cultures in her course structure and made their learning meaningful and personal.

When discussing acids in her class, Barbara mentioned how different cultures used different kinds of acids: vinegar in Caribbean culture and lime in other cultures. Another example was discussing different roots such as yucca, potatoes, and which cultures used one or another.

Jocelyn underscored that she could not even imagine teaching in a class in which there would be no students from other countries. Having ELLs in her classes made Jocelyn alter some assignments because she wanted to tie her students' cultures to the content of her class and, hence, make it meaningful to her students' lives. Jocelyn provided the following example:

One of the assignments in my class is a persuasive speech, and [students] have to tie it to a law. I think that this is a wonderful opportunity for us to learn about a foreign country. What I offer to any students who are from another country is to bring a law from their country because I think one of the most wonderful ways to learn about another country is through its laws. Last semester, one of her students from Saudi Arabia chose to present about bigamy.

Jocelyn noted that connecting assignments to students' cultures was a very powerful way to learn different perspectives. It was an effective method to show to students that "the dominant way is not necessarily the only way," and that was also something she taught to students through the audience analysis.

Addressing students' cultures in their general education classrooms was an important tool utilized by participants to motivate students and to draw their interest to the content of the disciplines. Drawing on students' cultures enabled participants to engage ELLs with the content of their discipline-specific courses in the most meaningful way.

ELL status not a hindrance to academic success. One important sub-theme that emerged in the context of the major theme Engaging ELLs with the Language of the Discipline was that being an ELL could not be directly linked to an academic failure. This view was espoused directly by Barbara and Jocelyn; however, it was also evident in the interviews the

researcher had with Istvan, Thomas, and Eric. The exemplars provided below from Barbara and Jocelyn best captured the essence of this sub-theme.

Interestingly, Barbara believed that the reason why some of her ELL students were not doing well in her class was not related to language issues they might be experiencing. The key to academic failure, according to Barbara, was more relevant to the matter of studying. She had this to say: “What I usually find when [students] did poorly, it was either due to absences, lateness, not doing the work, not turning in the work, or being overworked.” Barbara sympathized with students who did not do well by not counting the lowest grade in their lab reports and quizzes. She explained that she tried to create “a learning environment in which we test, but there is a certain forgiveness built in.”

Barbara once again stated that she believed that being an ELL student or being a NES had really little to do with how organized the student was, how effective the student managed his or her time, what kind of steps the student took to remedy a struggle, and how or whether the student used any resources available to him or her. She attributed the academic success of her student athletes, typically ELL students, to having a structure that “kept a close tab on them and helped them to stay organized and focused.” Athletic coaches and coordinators from the school student-athletes belonged to had been closely monitoring academic performance of these students and communicated with instructors of those classes student-athletes were enrolled in. When ELL student-athletes fell behind in their academic coursework, they were required to take specific steps to improve their academic performance.

Jocelyn shared that the process of creating a plan of a message or organizing a speech was not a challenge experienced by ELL students only, but also by NES. She did not see a direct correlation between being an ELL student and struggling with the organization of the speech.

Instead, she observed a large variability in students' successes or failures when it came to planning the message. She had this to say: "Some of my ELL students, especially from Europe, pick it up easier. They are better because they have been taught to organize more than American students, and my Latin students actually pick up on it pretty well too."

Participants believed that the challenges students had been experiencing with acquisition of the content of their courses were not necessarily directly related to students' ELL status. Participants attributed these challenges more to students' lack of study skills such as time management or library research and an overall lack of adequate academic preparation. In fact, participants revealed that many of their ELL students had been performing much better in their classes than the NES.

Summary of Part II

The findings of this study revealed six major cross-case themes. Each major cross-case theme has corresponding sub-themes. Participants' experiences were presented through descriptions of the cross-case major themes and corresponding sub-themes. Through the data analysis, these six themes and their corresponding sub-themes, as expressed by the participants in this study, appeared to represent different phases of participants' teaching journeys during which they became teachers and experts in their disciplines. These phases or stages are: Learning How to Teach Disciplines; Developing Personal Dispositions about Teaching All Students; Becoming Experts in Disciplines: Considering the Role of the Subject Matter, Curriculum, and Pedagogy in Teaching Disciplines; Having ELLs in the General Education Content-Area Classrooms; and Engaging ELLs with the Language of the Discipline.

Through the analysis of data, each of the six major cross-case themes and corresponding sub-themes supported an identified overarching theme of this study which is the "Passion,

Commitment, and Devotion of Participants to Teaching Their Disciplines to Students.” Through all of the phases of the participants’ teaching journeys as they developed as teachers and experts in their disciplines, they showed passion, commitment, and devotion to their disciplines, the art of teaching, and their students. Therefore, they are truly passionate teachers because “to be a passionate teacher is to be someone in love with a field of knowledge, deeply stirred by issues and ideas that challenge our world, down to the dilemmas and potentials of young people who come into class each day – or captivated by all of these” (Fried, 1995).

Conclusion

The following chapter – Chapter V – will present a discussion of each of the major cross-case theme. As Chapter IV provided the results of the analysis of data, Chapter V will discuss how these cross-case themes either support or are divergent with the scholarly research and theoretical frameworks used in this study. Additional interesting findings, implications, and suggestions for the field of curriculum and instruction, policy, and research as well as limitations to the study will be discussed further at the end of this study on experiences of full-time content-area faculty teaching ELLs in general education university classrooms.

CHAPTER V

DISCUSSION

This chapter summarizes the dissertation study by presenting the purpose of the study, an overview of its significance, the methodology utilized, the summary of results, and a discussion of findings. In addition, implications for teaching practice and further research will be presented. Finally, limitations of the study will be outlined followed by a brief conclusion.

Researcher's Prologue

According to Hannah Arendt (1961), "It is in the nature of beginning that something new is started which cannot be expected from whatever may have happened before. This character of startling unexpectedness is inherent in all beginnings" (as cited in Greene, 1995, p. 23).

Before proceeding with the description of the summary of the study, the researcher felt the need to express her excitement regarding the findings of this dissertation project. As discussed in Chapter I, one of the major impetuses for the topic of this study was the researcher's numerous conversations with a large number of her colleagues, both from the department where she has been working and also teachers from other academic units in the university, regarding teaching ELLs in content-area university classrooms. During these conversations with her colleagues, the researcher heard their concerns about teaching ELLs in general education classrooms and learned about problems content-area faculty experienced when teaching ELLs in discipline-specific university classrooms. During the first stage of the research study, the researcher conducted a review of existing literature on the topic to better understand the experiences of the content-area teachers teaching undergraduate ELLs in general education university classrooms. The conversations with her colleagues, along with the researcher's review of existing literature on the topic, her training in the areas of English, linguistics, and TESOL, provided the researcher with some preliminary understanding about the topic and began shaping

her expectations about the possible findings of this study to a certain degree even though the researcher was familiar with Benjamin Disraeli's (n.d.) saying that "what we anticipate seldom occurs, what we least expected generally happens."

It was challenging for the researcher to not allow this knowledge or framework to influence her expectations about the study's findings. Luckily, while perusing yet another research study on the topic and thinking about her biases at the same time, the researcher saw Maxine Greene's (1995) *Release the Imagination* book on the shelf. The title of the book reminded the researcher that when someone looks at a new endeavor from the vantage point of one's preexisting knowledge and biases, "the new always appears improbable" (Greene, 1995, p. 22). The researcher then was able "to release her imagination," suppress her existing biases, and "had the imagination to envisage new [findings] emerging, more and more began to seem possible" (Greene, 1995, p. 22). Now, with this dissertation research study completed, the researcher is very delighted to share these "startlingly unexpected" findings of her study with the readers.

Summary of the Study

In recent years there has been a growing concern among policy makers, administration of institutions of higher education, the public, and students that, due to a lack of formal training in pedagogy and curriculum, faculty teaching first-year general education courses in university classrooms are not adequately prepared to deliver the content of their disciplines to students (Gaston, 2010; Gaston, 2010b). This issue is even more important for ELLs who grapple with the challenging task of developing their academic language proficiency while at the same time attempting to acquire the language of the discipline in general education university classrooms (Gaston, 2010). For all these above-mentioned reasons, answering the research question: "How

do full-time content-area faculty members describe their experiences when teaching first-year general education courses in university classrooms in which ELLs are typically enrolled?” is vital to contributing to the body of knowledge in the fields of curriculum and instruction and TESOL.

A qualitative multiple-case study methodology was employed in this study to obtain an in-depth description of full-time content area faculty’s experiences teaching ELLs in first-year general education university classrooms in which ELLs were enrolled at the research site located in South Florida. A purposeful sampling technique was utilized to select participants for this study to ensure the selection of information-rich and diverse cases (Patton, 2002). Five full-time content-area faculty teaching first-year general education courses in biology, communications, psychology, and theology in which undergraduate ELLs were enrolled at the research site located in South Florida were recruited to participate in this study. Qualitative data were collected through participants’ responses to a brief e-mail questionnaire, vignettes reflecting the researcher’s observations of participants’ classrooms during instructional sessions, and two rounds of one-to-one digitally recorded interviews with participants.

Six emerged major cross-case themes and their corresponding sub-themes, as expressed by the participants in the study, appeared to represent their teaching journeys during which participants became teachers and experts in their disciplines. These six major cross-case themes along with the corresponding sub-themes resulted in the overarching theme of the passion, commitment, and devotion of participants to the subject matter of their disciplines and to teaching the subject matter to all students including ELLs in general education university classrooms.

Participants did not view their experiences of teaching content-area disciplines to ELLs in first-year general education classrooms divorced from their experiences of teaching their disciplines to all students regardless of their language status. Rather, participants perceived all students enrolled in their general education courses as non-native speakers of languages of their respective disciplines such as non-native speakers of biology, non-native speakers of communications, non-native speakers of psychology, and non-native speakers of theology. It seems that this study took an unexpected “turn” and shifted its focus from strictly the descriptions of participants’ experiences teaching content-area classes to ELLs in university classrooms to the descriptions of participants’ teaching journeys during which they have been teaching disciplines to all students including ELLs.

Discussion of Findings

After a careful analysis of the data, six major themes emerged that described participants’ collective experiences of teaching content-area disciplines to students in general education university classrooms. This chapter includes a discussion of each of these themes and explores where they support and diverge from the existing literature. Although there may be literature that supports some of the major themes and the overarching theme of this study, there was virtually no literature available that supported the topic of this study of experiences of full-time faculty teaching discipline-specific courses to ELLs in general education university classrooms.

Learning to teach a discipline is not about acquiring a bag of tricks based on a set of general pedagogical practices; it is about passion and love for the subject matter and for students that propel and eventuate in the development of a complex and contextualized set of knowledge about the subject matter to apply to specific problems of practice (Abell, 2008).

Learning How to Teach a Discipline

Although participants in this study did not obtain any formal training in pedagogy during the course of their graduate studies prior to the start of their teaching careers, they began their teaching journeys in institutions of higher education knowing something about teaching, according to Feiman-Nemser & Remillard, 2005; Lampert, 2001; Zeichner, 2007. Where did they get this knowledge then? As it was outlined in the literature review in Chapter II of this study, teachers' past experiences as learners have a significant impact on the development of their teaching styles and teaching practices regardless of whether teachers have received any formal training in pedagogy or not. Studies showed (Borg, 2003; Connelly & Clandinin, 1985; Connelly, Clandinin, & He, 1997; Freeman & Johnson, 1998; Nespor, 1987; O'Toole, 2010; Richards & Lockhart, 1994) that "critical episodes" or prominent experiences that created memories in the minds of teachers; their personal practical knowledge; previous teachers; and observations of others impacted and contributed to teachers' development of teaching practices and dispositions about teaching. The findings of this study support the findings of the existing literature in that participants drew on their past experiences as learners in the development of their own teaching styles.

As in the existing literature on the sources of teachers' knowledge (Hill, 2013; Phifer, 2010), at the beginning of their teaching careers, participants in this study modeled teaching styles of the best professors or mentors to whom they had been exposed in their undergraduate or graduate programs. The major difference between the findings of the present study and the previous research on this topic is how participants described the concept of the "best teacher." The findings of the present study revealed that the best teachers participants had during the course of their graduate programs were the ones who made them get "connected" to their

disciplines and the ones who made the content of their disciplines relevant to participants' lives. It may be posited then that good teaching, as evidenced by the data analysis, is not just a matter of some magic technique but rather both "an intellectual and a performing art" (Bain, 2004, p. 174). Participants in this study believed that the "best teachers" from their past experiences transformed the content of their disciplines or subject matter to address the needs of their students. This perspective on connecting the subject matter of the discipline by emphasizing the needs of the learners mirrors Schwab's (1978) view in that such a transformation or a "translation" of the subject matter of the discipline for students begins with understanding the learner (as cited in Deng, 2007).

Participants in this study drew from examples of instruction from their former teachers or mentors in deciding how to make the concept of their disciplines comprehensible to students. One participant in the present study attributed his knowledge about how to teach general education theology courses to his dean with whom he had been working and not to his former teachers. This knowledge also emphasized making the content of the course relevant and comprehensible to all students. The impact of former "best teachers" and/or mentors on teaching practices of the participants in this study is extremely important. As Shulman (2004) points out, such "an apprenticeship of observation" has been utilized by novice teachers every time "they represent their subject matter to [students]" (p. 121). Even at the beginning of their teaching careers, participants have already had nascent knowledge regarding effective pedagogy and pedagogical content knowledge that enables them as teachers to make the subject matter relevant and comprehensible to all students.

As participants in this study started gaining deeper insights about their own teaching styles as primary tools of connecting the content of their disciplines to students and engaging

them in the process of acquiring the content, they began utilizing reflections or the “processes of reconstruction and reorganization of their [teaching] experiences that [added] to the meaning of [these] experiences” (Rodgers, 2002, p. 848). Being cognizant of their teaching experiences allows teachers to either alter the knowledge they gained from previous experiences or to add to their “stock of knowledge” and develop a new perspective (Rodgers, 2002).

As was highlighted in the literature review in Chapter II, some researchers argue that while the classification or a typology of disciplines as *soft* and *hard* is rather controversial, there may be a link between the category a given discipline is attributed to and the type of reflection and teaching practices faculty teaching these disciplines espouse and utilize in their content-area classrooms (Kreber, 2009). However, findings of the present study did not corroborate this claim.

Evidence that was gleaned from the analysis of the data, regardless of whether participants’ discipline was classified as a *hard* or a *soft* one, indicates that participants in the present study were engaged in reflections about their teaching and their students and utilized student-centered approaches to teaching. What became evident during one-to-one interviews with the participants and through the data analysis was participants’ commitment and eagerness to find better and more effective ways to deliver the content of their disciplines to students. Students and their learning were always the focus of participants’ reflections. That was why participants reflected on the strategies they used to address students’ difficulties on the final exams, writing assignments, and performances such as delivering speeches or conducting labs in the classrooms. They questioned and examined their own knowledge about the problems and techniques they incorporated to solve these issues and their own teaching. Not only had they modified what they already knew about teaching based on their personal practical experiences,

but they also added to their understanding of their own teaching (Valli, 2003). The reflections in which participants were engaged were productive because they “resulted in a better understanding of one’s practice” (Russell, 1993, p. 146).

The findings of this study also provided a glimpse of evidence in support of a claim that university faculty’s teaching styles and the types of reflections they are engaged in depend not so much on the typology of their content-area disciplines and/or institutional and departmental cultures but rather on faculty’s own understanding of their disciplines, passion for the subject matter and students, and perceptions about themselves as teachers. In the present study, participants’ commitment and passion about the subject matter of their disciplines and teaching it to their students appeared to have the utmost influence on their teaching practices and the type of reflections in which they were engaged.

Developing Personal Dispositions about Teaching

The findings of the present study illustrated that participants’ dispositions about teaching emphasized a student-oriented approach and support results of other studies on this topic outlined in the literature review in Chapter II (Holmes, 2004; Samuelowisz & Bain, 1992; Trigwell, Prosser, & Taylor, 1994; Trigwell, Prosser, & Waterhouse, 1992; Trigwell & Prosser, 1996). Participants’ descriptions of their perceived roles as instructors were consistent in that none of the perceived roles was focused on a teacher-centered approach. All five participants viewed their roles as instructors as a *social facilitator* or an *older sister*, a *coach*, an *interpreter*, a *teacher*, and a *facilitator*. During the researcher’s observations of participants’ general education classrooms, she witnessed firsthand that participants in this study did not simply “transmit” their knowledge about the discipline to students but rather included students in the process of knowledge construction and meaning-making.

What was also very illuminating and consistent with how participants viewed their roles as instructors was what they considered to be their teaching strengths. Participants attributed their teaching strengths not to the realm of knowledge of pedagogy and/or curriculum but to their nurturing and caring approach to teaching and creating a welcoming and a loving environment in their classrooms. Empathy, approachability, caring attitude, personal attention, passion, and commitment to teaching all students were mentioned as the most important teaching strengths by all participants. While these above-mentioned characteristics of participants' teaching strengths are obviously beneficial for all students, they are even more valuable for ELLs. During their interviews with the researcher, participants expressed that they were aware that ELLs experienced challenges while trying to master the content of the disciplines and at the same time grappling with acquisition of academic language. Participants shared that they, therefore, made every effort to include ELLs in the classroom conversations, discussions, and activities; spend necessary time with them inside and outside of instructional class time; and respect their diversity and experiences.

Participants also viewed their teaching weaknesses in a similar way as their teaching strengths. Teaching weaknesses were not regarded by participants as a lack of pedagogical training or a lack of knowledge about the curriculum. The results of the data analysis revealed that participants attributed their teaching weaknesses to a lack of time to spend with students one-to-one and personal characteristics such as a lack of patience.

Participants in this study also realized that in order to deliver the content of their disciplines to all students in their general education classrooms in the most effective way and connect students with the content, "they had to think about ways to understand students' learning" (Bain, 2004, p. 171). Therefore, participants in this study truly exhibited characteristics

of effective teachers, for “part of being a good teacher is knowing that you always have something new to learn – not so much about teaching techniques but about these particular students at this particular time and their particular sets of aspirations, confusions, misconceptions, and ignorance” (Bain, 2004, p. 174).

Participants’ knowledge about students and their connection with students on a personal level are integral parts of the pedagogical content knowledge or “the capacity of a teacher to transform the content knowledge he or she possesses into forms that are pedagogically powerful and yet adaptive to the variations in ability and background presented by the students” (Shulman, 1987, p. 15). Teachers need to know their learners as individuals, as members of a specific culture, as learners with certain characteristics, and as learners at a particular stage of their development, for specific scaffolding techniques depend on teachers’ understanding of learners’ backgrounds, experiences, challenges, prior knowledge, and misconceptions they may have about a specific discipline (Hollins, 2011). It was clear that in this study, the participants’ lack of formal pedagogical training did not impede the development of their pedagogical content knowledge necessary to connect students with the subject matter of their disciplines and make students aware of how practitioners in various disciplines think and construct knowledge. Participants demonstrated their pedagogical content knowledge by employing a variety of multimodal scaffolding means aimed to facilitate students’ acquisition of the subject matter of discipline-specific courses, by engaging in reflections on their teaching and their students, and by knowing their students and being aware of the challenges students experienced when learning the content of the first-year general education courses.

Becoming Experts in Disciplines

Teaching content-area disciplines is principally about connecting and communicating with students the subject matter of these disciplines (Kreber, 2009). Therefore, content-area faculty must possess solid knowledge of the subject matter so that they can interpret it effectively for students. Each discipline or content-area holds its own history, beliefs, and disagreements regarding the subject matter (Huber & Morreale, 2002). In order to become experts in their respective disciplines, faculty must be able to speak the language of the discipline and learn the ways of thinking and practicing that are representative of a particular discipline (Kreber, 2009). The language of the discipline or its style is what Schwab (1964) distinguished as substantive and syntactic structures or the “conceptions that guide inquiry” and the “pathways of inquiry [scholars] use, what they mean by verified knowledge and how they go about this verification” (p. 25).

Expert knowledge about the language of a particular discipline and the ways of thinking and practicing it enables faculty to teach students explicitly not only what is known about a particular subject matter, but also how it has become known and what it actually means to “know the subject” of a discipline (Kreber, 2009). Discipline knowledge in the subject matter is unequivocally a crucial factor in helping faculty become experts in their disciplines. When teachers develop expertise in the subject matter, they mediate their theoretical knowledge about the discipline with their awareness of how to connect the content of their disciplines with students from drawing on their past experiences as learners, reflective practice, and their personal dispositions about teaching and learning (Kreber, 2009). Research on the impact and importance of content-area faculty’s knowledge of the subject matter on student learning (Kreber, 2002; Maxwell, Vincent, & Ball, 2011; Rowland, Byron, Furedi, Padfield, & Smyth,

1998; Seagall, 2004) found that the scholarship of teaching and learning cannot be divorced from the content/subject matter of the discipline being taught, and “improvement of teaching needs to be rooted in the intellectual substance of the field” (Healey, 2000, p. 173).

Participants in this study are experts in their respective disciplines as evidenced by their academic credentials and their active involvement in research. They possess strong knowledge about the language of their disciplines and the ways of thinking that are characteristic in their content-areas. All participants fully agreed with the statement that “in order to learn a discipline, one must learn the language of this discipline.” The findings of this study also show that participants’ solid knowledge of the subject matter was combined with extensive knowledge about their students’ backgrounds, needs, and levels of preparation. Therefore, participants were fully aware of the challenges that the language of their respective disciplines might present to all students. Participants did not view challenges posed by the language of their respective disciplines as obstacles experienced only by ELLs. On the contrary, they regarded these challenges as experienced by all students because all students had to master the language of the discipline.

The findings of this study support the argument made by McEwan and Bull (1991) who argued that “all subject-matter knowledge is pedagogical” by its nature. Although participants in the present study did not possess any formal training in pedagogy, they were anxious to teach the subject matter of their disciplines to students as “the subject matter is always an expression of a desire to communicate the ideas to others” (McEwan & Bull, 1991, p. 331). One may rightfully argue, however, that not all faculty members who are experts in their disciplines and who possess extensive knowledge about the subject matter can teach the content effectively. This may occur, for example, when faculty’s understanding of what it means to teach focuses on them and

what they know about the subject matter not on their students and their students' learning (Phifer, 2010). This was not the case in this study.

Considering the Role of the Subject Matter, Curriculum, and Pedagogy

When discussing the role of the subject matter, curriculum, and pedagogy in teaching or connecting the content of their disciplines with first-year ELLs and all students enrolled in general education courses, participants shared some interesting views. Some participants stated that knowledge of the subject matter was the most important factor in connecting the content of their disciplines with students while others expressed that faculty's knowledge of the subject matter should be integrated with their knowledge of pedagogy and curriculum. What was consistent in all participants' responses during interviews and was observed during researcher's observations of participants' general education classrooms, however, was their captivation with the subject matter of their disciplines.

Participants were excited to share how inherently interesting, exciting, and fascinating the language of their disciplines was and how the nature of the subject matter could capture their students' attention. These participants' views on the role of the subject matter in teaching the content echoed the idea of Segall (2004) who argued that the subject matter has a pedagogical dimension, i.e. the subject matter possesses pedagogical characteristic. The findings of the present study indicated that it was knowledge of the subject matter that enabled participants to "select the best metaphors, examples, and explanations, the most appropriate methods and techniques, and the most suited curricular materials through which to engage students with content and concepts in the disciplines" (McDiarmid, Ball, & Anderson, 1996, p. 194).

In regards to the role of curriculum and its importance in teaching general education discipline-specific courses, participants perceived its role as a standard for teaching a discipline;

as a tool to structure the learning process; and as an instrument enabling them to teach the content of the discipline in its relation to other disciplines. Participants' perceptions of the role of curriculum in teaching mirror Shulman's (1987) ideas about teachers' curricular knowledge being an integral part of their pedagogical content knowledge. Participants also acknowledged the important role of pedagogy in teaching the content of their disciplines to all students including ELLs. They regarded pedagogy as a teaching tool; as an opportunity to teach to the audience; and as an opportunity to engage students with the content of the discipline.

While acknowledging the important role of both curricular and pedagogical knowledge in teaching the content of the discipline to first-year undergraduate college students in general education classrooms, findings of this study also demonstrated that, overall, participants perceived the subject matter knowledge to be the most important factor in teaching the language of their disciplines to students. This view on the role of the subject matter corroborates the position of Grossman, Wilson, and Shulman (1989) in that "[good] teachers not only know their content but know things about their content that make effective instruction possible" (p. 24).

Having ELLs in the General Education Content-Area Classrooms

During their tenure of teaching at the university, participants witnessed a change in the student population enrolled in their first-year general education courses. This change in the student body was not only characteristic of this research site but was also an emerging trend across institutions of higher education across the country (Gaston, 2010a). Participants' classes became increasingly more culturally and linguistically diverse, and more and more students who were admitted to the university lacked necessary skills, basic study skills, and the confidence needed to succeed and meet the demands of academic life. As teaching the content of the discipline is essentially connecting students with it, students' cultural and religious beliefs may

present an obstacle in this process (Kreber, 2009). Some of the facets of the subject matter as well as some pedagogical practices utilized by faculty may question the cultural and religious values of some groups of students (Kreber, 2009). Students' difficulties with language proficiency and the academic language that international and *Generation 1.5* students experience may also pose a problem in their comprehension and understanding of the content, hence, preventing students from connecting with the content. The above-mentioned challenges experienced by students obviously present difficulties to faculty who teach content-area general education classes in which ELLs are enrolled. Faculty must be ready to respond effectively to such challenges and employ inclusive practices so that they can deliver the content of their disciplines to students more effectively (Kreber, 2009).

As it was summarized in the literature review in Chapter II in regards to the K-12 setting, challenges experienced by content-area teachers in teaching the subject matter to ELLs can create negative attitudes towards ELLs (Karabenick & Noda, 2004; Reeves, 2006; Walker, Shafer, & Lims, 2004; Youngs & Youngs, 2001). Some of these findings reported that teachers were not interested in working with ELLs due to teachers' lack of time, and they felt unprepared to support ELLs academically (Walker, Shafer, & Lims, 2004). Other findings revealed that content-area teachers felt that ELLs should be proficient with academic language after only one year of exposure to it and that ELLs should not be allowed to use their L1 in schools. In one study conducted in the context of higher education, Zack and Spack (2006) found that instructors from multiple disciplines were frustrated with their students' perplexing language use. Instructors felt that many of their international students were not qualified to be admitted to the university, and they were overwhelmed by the number of errors in their students' written work.

The findings of the present study did not validate the findings of the existing research literature on attitudes of content-area faculty towards ELLs in the K-12 setting. The results of the data analysis revealed that participants in this study truly enjoyed having ELLs in their general education classrooms. Some of the reasons for such a positive attitude towards ELLs included: (1) fascination with various languages that ELLs speak in their first-year general education classrooms and the process of how languages are learned; (2) admiration with other cultures and new perspectives; (3) love of diversity that ELLs bring to the classrooms; and (4) respect that ELLs have towards instructors and education in general. Contrary to the findings of Zack and Spack (2006), participants maintained that they did not “talk down” to their ELLs because of their accents or language difficulties. In fact, Jocelyn encouraged her ELLs to celebrate and employ their accents as a means to connect with the audience when presenting a speech.

Despite a lack of formal training in pedagogy in general and specific training about language development and L2 acquisition, the findings of this study presented evidence that participants were aware of the challenges ELLs experienced in their classrooms and were able to respond to these challenges. The difficulties ELLs experienced in the participants’ general education classrooms were concerned mostly with writing and reading as both are pivotal characteristics of the language of various disciplines. Participants knew about the differences between learning to speak L2 versus learning to communicate in L2 through writing. Participants understood and were cognizant that ELLs were struggling with the acquisition of two languages in their classrooms: academic language and the language of their disciplines. Although, as some participants revealed, they were not experts in the areas of reading and writing, they felt confident in helping students with writing because they were passionate about teaching and helping students to write as experts in their disciplines do.

As expressed during interviews and confirmed through the analysis of the data, participants responded to these challenges by encouraging ELLs to avail themselves of all academic support services provided at the university and encouraging them to take advantage of these services; by providing students with extensive but nonjudgmental feedback on their writing assignments; by allowing and encouraging multiple draft submissions; by spending extra time with ELLs outside of class instruction; by instilling confidence in ELLs when they needed support and encouragement; and by motivating and reassuring ELLs that they could succeed. All the above-mentioned strategies are not “just good teaching practices” (De Jong & Harper, 2008) that are only effective for NES. These practices are indeed good teaching practices for ELLs as well because they take into account both linguistic and cultural challenges experienced by ELLs in the content-area classrooms.

What was also stood out in the participants’ responses to challenges ELLs had been experiencing in their classrooms was the nurturing and caring environment that participants created. Participants did not want ELLs feel isolated; rather, they intended to make ELLs feel welcomed. During her interviews with participants, the researcher did not hear a note of resentment in participants’ voices when they talked about ELLs. What she heard was the excitement in the voices of participants when they shared the experiences of teaching and having ELLs in their general education courses and admiration for their accomplishments in mastering the content and their hard work.

When participants described the frustrating aspects of their experiences teaching ELLs in their general education classrooms, these frustrations were mostly related to academic success of all students not only ELLs. Participants mentioned that it was painful to observe that students sometimes failed to read required assignments and that they did not avail themselves of the

resources available at the university. However, even when participants felt frustrated with students at times, they believed in their capacity to solve the problems and helped students to succeed.

Participants deeply cared about the academic success of ELLs as well as of all students enrolled in their general education courses. During the second round of interviews with the researcher, all participants shared that they had been thinking about ELLs after the first round of interviews and that the first round of interviews, as Istvan mentioned, “heightened [his] awareness” about the issues ELLs experienced when acquiring both academic language and the language of the discipline. It appears that participants became more observant, cognizant, and attentive to the needs of ELLs after the first round of interviews. What was consistent in all participants’ responses was that ELLs enrolled in their classes made significant academic progress from the first time they met with the researcher. In the context of this study, prior to the second round of interviews with the researcher, participants independently reflected on the challenges ELLs experienced in their first-year general education classrooms. During the second round of interviews, when participants engaged in conversations about their practices with the researcher, “claims of knowledge [were] validated or questioned” (Kreber, 2006). Faculty’s engagement in conversations about their teaching practices and reflecting on these practices aid faculty in finding lenses to disclose the true picture of who they are and how they teach (Brookfield, 2005). This finding provides further evidence in support of the argument that reflection is a powerful tool that not only can help faculty alter their teaching practices but also enable them to question their personal conceptions about teaching and learning.

Engaging Students with the Language of the Discipline

Undergraduate ELLs enrolled in discipline-specific general education courses usually struggle with daunting tasks, for they must achieve necessary language proficiency, master academic language, and learn the language of the discipline all at the same time. To learn the language of the discipline means that undergraduate ELLs must fully master academic literacy that typically involves students' abilities to read and write strategically in accordance with the conventions of disciplinary styles (Huber & Morreale, 2002). More importantly, ELLs must learn the ways of thinking that are characteristic of a particular discipline in one course and be able to apply and employ these skills beyond the context of the same course (Kreber, 2009).

The role of faculty in assisting ELLs with this challenging task is undisputed as the faculty member is viewed as a mediator or a more capable other, an expert, who mediates the language of the discipline to students by employing various scaffolding means (Vygotsky, 1978). According to the SCT theoretical framework in which this study is grounded, the mediator or the teacher must create a specific learning environment in which acquisition of content is taking place as a collaborative act during which the expert takes into consideration his or her learners' previous experiences, backgrounds, and challenges they experience in the content-area classrooms (Daniels, 2010; Vygotsky, 1978). The purpose of such collaboration between the expert and the student is to facilitate the continuing mastery of academic content of discipline-specific courses simultaneously with language development without expert support (Daniels, 2010).

The present study is also grounded in Shulman's (1987) theoretical framework according to which teachers must possess a specific type of knowledge in order to teach the subject matter of their disciplines to students effectively. Shulman coined the term *pedagogical content*

knowledge that represents “a blending of content and pedagogy into an understanding of how particular topics, problems, or issues are organized, represented, and adapted to the diverse interests and abilities of learners, and presented for instruction” (p. 8). This knowledge also entails teachers’ curricular knowledge that brings about teachers’ ability to relate the content of topics covered in their disciplines to topics being studied simultaneously in other classes. The assumption is that the pedagogical content knowledge that encompasses knowledge of the subject matter, pedagogy, and curriculum enables teachers to utilize appropriate scaffolding means and mediate the content of their disciplines to ELLs in general education university classrooms. This process of content mediation engages ELLs in a collaborative construction of new knowledge with the assistance of expert faculty “whose purpose is to share their expertise in order to construct and negotiate meaning” (Flower, 2012, p. 13).

However, many scholars have been concerned with the fact that faculty who teach discipline-specific courses in institutions of higher education lack formal training in pedagogy and curriculum and, in regards to ELLs, they also lack any training in L2 acquisition and learning; therefore, they are perceived as not possessing necessary pedagogical content knowledge allowing them to utilize appropriate scaffolding means to connect students to the content of their disciplines while at the same time facilitating the development of students’ academic language proficiency. Shulman (1986) argued that content was the domain of subject-area specialists or university faculty while pedagogy was the domain of K-12 teachers. In his view, university faculty did not have this special kind of knowledge – pedagogical content knowledge or knowledge which “transforms content per se into content for teaching” (Segall, 2004, p. 495).

Making the content of the discipline comprehensible to ELLs. The findings of this study fit well within both Vygotsky's (1978) and Shulman's (1986) theoretical frameworks. Participants in this study were experts in their areas of studies and held advanced degrees in the subject matter of their disciplines; yet, none reported having any formal training in pedagogy and curriculum. Nonetheless, they were not "naïve observers of teaching in addition to being naïve practitioners of the art and science of teaching" (Cross, 1990, p. 10). As the "subject matter is pedagogical in its nature," throughout the entire time of their teaching careers, participants were finding ways to communicate the subject matter of their disciplines to all students including ELLs. The findings of this study provided evidence that participants knew the most subtle nuances of the language of their disciplines or the disciplinary styles. In spite of the fact that they were trained in their graduate programs in certain traditions that were characteristic of their disciplines and representative of the disciplines' epistemological beliefs, participants did not adhere to one teaching method commonly utilized in their respective fields of study, for example, the lecture method commonly used in sciences. The findings of this study provided evidence that, throughout their teaching careers, participants developed an extensive pedagogical content knowledge enabling them to communicate the language of the subject matter successfully to all students.

The sources of participants' pedagogical content knowledge originated from their past experiences as learners, reflections on their teaching practices, and personal conceptions about teaching and learning. More importantly, they were ingrained in solid knowledge of the subject matter of their disciplines and their passion towards it, their students, and teaching. It is this powerful combination of profound knowledge of the subject matter supported by passion, commitment, and love of the subject matter, students, and teaching that afforded participants

with an opportunity “to engage the audience for the purpose of edifying its members” (Segall, 2004, p. 495). Participants in this study described a variety of scaffolding means that they utilized in their classrooms to mediate the language of their disciplines to students or, as it was mentioned previously, to connect and communicate the subject matter of their disciplines to ELLs.

These activities or mediational means included: providing a large number of examples and detailed explanation of concepts; encouraging students to take and re-write notes; using a language that was modified to explain the material more effectively to all students, especially ELLs; utilizing repetition; employing different media such as videos and song spoofs; providing detailed feedback on student writing assignments; teaching students how to look up definitions; paraphrasing; providing synonyms and analogies; teaching students to understand a metaphorical language used in philosophy to assist interpretation; activating students’ prior knowledge by constantly reviewing concepts taught in class; providing explicit instruction about the characteristics of scientific discourse; working in groups; providing peer feedback; and using story-telling.

Employing best strategies. The mediational means utilized by participants in their general education classrooms were labeled as effective ELL instructional practices in a number of research studies conducted in the field of TESOL (Bunch, 2013; Lucas & Villegas, 2011; Walqui, 2011). These activities are based on the perception about learning as a “joint activity that focuses on academic concepts and skills, and provides opportunities for learning through interaction” (Walqui, 2011, p. 162). For example, scaffolding strategies such as teaching paraphrasing, synonyms, analogies, and providing specific examples of complex disciplinary-specific concepts were referred to in the research literature as “explicit teaching of English in

academic setting” (Fillmore & Snow, 2002) enabling teachers to provide students with necessary linguistic support in expanding their “linguistic repertoires to discuss ideas, to understand texts, and to demonstrate...learning across the curriculum” (Valdes, 2005, p. 160). Participants in this study provided ELLs as well as all students enrolled in their general education courses with explicit and detailed feedback on student writing assignments. Researchers in numerous scholarly studies in the fields of education and L2 writing perceive writing feedback as an important and powerful tool for enhancement of student learning and achievement (Hattie & Timperley, 2007; Shute, 2008; Vygotsky, 1978).

The use of scaffolding strategies listed above provided evidence that participants in this research study employed a disciplinary literacy approach when connecting the content of their disciplines with students. As mentioned in the literature review in Chapter II of the present study, the disciplinary literacy instructional approach is a core learning framework of the K-12 CCS. This approach emphasizes the use of discipline-specific strategies enabling ELLs to master the content of a specific discipline while at the same time to develop adequate academic language proficiency. This approach promotes much needed social interaction among students and the expert teacher and provides an array of opportunities for content learning, meaning making, and critical thinking skills development.

The disciplinary literacy activities represent both explicit and implicit forms of mediations utilized by participants in their general education classrooms (Vygotsky, 1978). Examples of explicit mediation used by participants involve providing students with analogies or synonyms of the words with which they were unfamiliar whereas implicit mediation comprises the use of language in a form of probing that helps generate a new insight in the students (Wertsch, 2007). These activities were not designed to simply transmit knowledge from experts

to students but to engage students in collaboration and cooperation, two “crucial features of effective teaching” (Vygotsky, 1978, p. 168) with faculty and their peers to ensure internalization of the subject matter. According to Vygotsky (1978), internalization is “a representational activity or a process that occurs simultaneously in social practice and in the human brain/mind” (as cited in John-Steiner & Mahn, 1999, p. 196). By utilizing a variety of mediational means that involved a high level of interaction between the teacher or an expert and students, participants created learning situations in which internalization occurred. During these learning situations, students used speaking and writing to mediate complex activities. The process of producing spoken and written language represents thinking and is “a key to learners understanding of complex concepts” (Swain & Deters, 2007, p. 822). Understandings of concepts are accomplished through interaction with others and social and cultural artifacts (Swain & Deters, 2007). Since internalization is both a social and an individual process, participants afforded students with an opportunity to co-construct knowledge (John-Steiner & Mahn, 1999). Using their knowledge of the subject matter coupled with passion, commitment, and devotion to teaching and students, participants were able to utilize necessary mediational means and “create a social setting in which acquisition of the content of the discipline took place as a collaborative act” (Daniels, 2010) and was later internalized (see Figure 3).

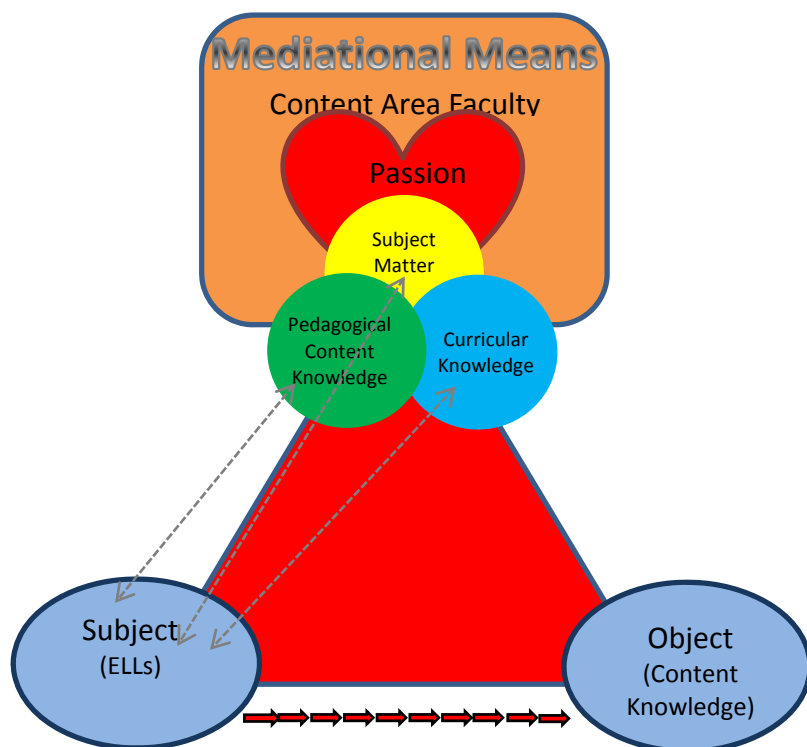


Figure 3. Subject matter knowledge and passion to teaching it to students: A new perspective on Vygotsky's (1978) SCT and Shulman's (1986) teachers' knowledge base framework

Figure 3 is a revised version of Figure 1 presented in Chapter 1 of the present study. What was added in Figure 3 was the overarching theme of the passion, commitment, and devotion identified in this study as result of the data analysis. In Figure 3, the overarching theme of passion is superimposed onto the subject matter to represent the participants' commitment, devotion, and enthusiasm to communicate the subject matter to students. This passion is a vehicle – a mediational means – for effectively communicating the subject matter of discipline-specific courses to students. Participants' passion along with their knowledge of the subject matter drives their pedagogical approaches which, in turn, consider their curricular knowledge.

The findings of the present study did not corroborate findings of Turner's (2009) study in which university content-area instructors did not provide students with guidance in regards to the rhetoric of disciplinary writing and did not afford them with an opportunity for extensive practice with writing. Although the purpose of the present study was not to evaluate the effectiveness of mediational means employed by the content-area faculty when teaching the subject matter of their disciplines to ELLs enrolled in general education classrooms, De Jong and Harper's (2008) call for K-12 teachers' understanding that "what works well for NES will not always work for ELLs" may not be completely relevant in the context of higher education. As the findings of the present study showed, faculty teaching ELLs in content-area classroom employed an assortment of various strategies or mediational means that took into consideration linguistic needs of ELLs.

Teaching vocabulary. One of the common features of the language of different disciplines mentioned by all participants was its unique vocabulary. Recent research on academic vocabulary emphasizes the importance of teaching content-specific vocabulary explicitly by introducing students to words with multiple meanings within and across disciplines and introducing to them word morphology and word origin (Calderon, Slavin, & Sanchez, 2005; Fillmore & Snow, 2002). What became apparent through the data analysis was that participants considered vocabulary as one of the most challenging aspects of the subject matter of their disciplines for all students and especially for ELLs who, in some cases, struggled with acquisition of even basic vocabulary. Therefore, all participants taught vocabulary explicitly to all students including ELLs by focusing on the morphological structure of words – breaking down words into prefixes, suffixes, and roots – and teaching students the origins of the root of the words; by encouraging students to use flashcards to learn new words; by studying in groups and reviewing unfamiliar terms together in collaboration with other students; by writing words

on the board and explaining their meanings to students by utilizing analogies and examples; by providing synonyms of words with which students were unfamiliar; and by paraphrasing certain words. All these strategies of teaching vocabulary were regarded in scholarly research as especially beneficial to ELLs (Valdes, 2004; Woodward-Kron, 2008) as vocabulary is viewed as the first and the most important step in language acquisition (Lei, Berger, Allen, Plummer, & Rosenberg, 2010).

Participants were aware that they must teach the language of their disciplines, namely vocabulary, explicitly to students because as Barbara stated: “We are going to teach students this language. As long as they are willing to learn, whether they were very fluent in English or whether they were just learning English, these facets of [the discipline] are unique, and we will be teaching them.” By teaching students vocabulary, one of the most important aspects of the subject matter of their disciplines, participants helped all students, especially ELLs, to communicate the information and ideas the way scholars in the discipline do while at the same time helping them to expand their vocabulary (Bain, 2004).

Students enrolled in general education courses, both ELLs and NES, often do not see the relevance of these courses to their respective major. Sometimes, freshmen view college primarily as a way to improve their lives (Clydesdale, 2007). Undergraduate students perceive general education requirements as some interference on the way to the major by getting a professional degree. Students want to “get it out of the way” so that serious study in the major may begin (Gaston, 2010). Research studies indicated that the majority of students were mostly excited to know how what they had been taught in their introductory general education courses spoke to their lives and how it was relevant to the world around them (Arum & Roksa, 2011; Nathan, 2005). If they did not see such relevance of the subject matter to their lives, students could not

connect with it and, hence, could not internalize it. Participants in this study espoused a very different view on the subject matter of their disciplines and its role in general education. They exhibited the characteristics of what Palmer (1998) described as good teaching in that “it is neither teacher-centered nor student-centered but subject-centered” (p. 116). Participants assisted students in their understanding of how the subject matter was relevant to their lives; in learning how to think through the lenses of this particular subject; and, more importantly, in understanding how students could apply knowledge they learned in one content-area course in other subjects (Kreber, 2009).

Addressing students’ cultures. Participants in this study viewed learning and teaching as processes that were context-specific and situated in culture. The concept of culture plays a pivotal role both in Vygotsky’s (1978) SCT and in Shulman’s (1987) teaching and learning framework. Vygotsky argued that human beings could not exist without culture, and he considered “culture and culturally mediated thought/action to be the hallmark of the emergence of human beings as distinct species” (Daniels, Cole, & Wertsch, 2007, p. 201). Drawing on Vygotsky’s SCT and the role of culture in pedagogy and teaching, O’Connor and Michaels (1993) posited that teachers must create a special classroom culture in which “students learn to take themselves seriously as learners and all other students as fellow learners, while fully engaging with relevant academic content” (as cited in Daniels, Cole, & Wertsch, 2007, p. 329).

One of the integral components of teachers’ pedagogical content knowledge, according to Shulman (1987), is knowledge about learners and their characteristics. In order to establish adequate learning situations in which the internalization of complex concepts occurs collaboratively, participants must know their learners and their characteristics, that is their culture. As participants utilize language to mediate the content of their disciplines to students,

and language is situated in culture, participants should draw on students' cultures to assist them in connecting with the language of the discipline while at the same time facilitating their mastery of the academic language. Because academic success in college is not simply a matter of adequate English proficiency, but also a matter of adaptation to sociocultural norms and academic expectations, university faculty teaching content-area classrooms must facilitate this type of an adjustment for ELLs. According to Andrade and Evans (2009), succeeding for ELLs "requires cultural and educational adjustment strategies as well as institution-specific adjustment skills" (p. 63). Findings of this study support the findings of Grant and Gillette's (2002) study reviewed in Chapter II of this dissertation in that participants in the present study were truly culturally responsive teachers as they held high expectations for their students, established relationship with them, utilized students' background knowledge, and employed a variety of scaffolding means to connect the content of their disciplines with students.

The overview of research on culture and its importance in content-area classrooms in the context of the K-12 setting provided in Chapter II of the present study showed that teachers should be able to facilitate students' acquisition of disciplinary discourses by addressing students' cultures and by providing culturally-sensitive and context-rich cues (Lee, Penfield, & Buxton, 2011). The findings of this study provided evidence that participants knew their students and their cultures, and drew on students' cultures when connecting and communicating the content of their disciplines to ELLs. Participants skillfully utilized their knowledge about students' cultures to establish a rapport with them and make them feel included and welcomed in their content-area classrooms. Being aware that in some countries there exists a much higher level of formality between a teacher and students, participants tried to break this barrier of formality. This finding supports the findings of Gee's (1998) study in that participants in the

present study were aware about the complex interaction that existed between language and culture. Participants showed students that they were approachable and willing to help them.

Participants invited ELLs to celebrate their own cultures and afforded them with multiple opportunities to share information about their cultures to their peers in class. Barbara utilized her knowledge of multiple languages to make various cultural references when teaching vocabulary to students. Jocelyn included assignments that reflected students' cultures. Therefore, the findings of this study showed that participants used their pedagogical content knowledge that included knowledge of their learners and, consequently, their cultures and were able to draw on ELLs' cultures to engage them in their "central learning task...that is to acquire...patterns of discourse that are used by particular [disciplinary] communities" (Resnick, Pontecorvo, & Saljo, 1997, p. 4).

Lastly, the data analysis confirmed that participants did not perceive ELL status as an obstacle to ELL students' academic success. What made a more profound impact on ELLs' academic performance and the academic performance of all students enrolled in the participants' general education courses was a lack of preparation to meet the challenging demands of the discipline-specific courses. Students were not aware of basic study skills such as managing their time, setting up priorities, utilizing support services available to them at the university, and being responsible for their own learning.

These findings support the data from other research studies regarding students' academic preparedness for college (Venezia, Krist, & Antonio, 2004). A lack of clear expectations about the outcomes of general education courses and a lack of awareness regarding the relationship between discipline-specific courses and the major to these outcomes were also cited in the literature as some of the reasons for students' academic failures (Venezia, Krist, & Antonio,

2004). Therefore, other, more powerful factors than merely a lack of adequate proficiency in academic language, could impact ELLs' academic performance both in a positive and in a negative way.

Participants also shared that, overall, ELL students have been performing much better in their classes than NES. One of the reasons why ELLs outperformed their peers, NES, in participants' general education classrooms may be attributed to the differences in the instructional approaches utilized in high schools in the countries in which ELLs obtained their high school diplomas versus instructional approaches employed in high schools in the United States (Van der Wende, 2011). Unlike in the United States, where the instructional approaches in high schools mostly focus on the acquisition of discrete skills such as reading, math, and writing, teaching methods employed in upper level secondary schools in Europe and Asia emphasize critical thinking and problem-solving skills aimed to "contribute to entrepreneurship and provide young people with the knowledge of how to start and develop business" (Lundahl, Arreman, Lundstrom, & Ronnberg, 2010, p. 51). Therefore, in spite of a lack of adequate academic language proficiency in English, ELL graduates of secondary schools outside of the United States generally may already possess important critical thinking and problem-solving skills allowing them to connect with the content of the discipline-specific courses faster and more effectively than their peers, NES, graduates of U.S. high schools.

Interesting Findings

In addition to the major cross-case themes discussed above, there were two other important findings that emerged through the data analysis. These findings relate to the affective domain of teaching and to the university faculty's status.

Passion, commitment, and devotion. One of these findings is a powerful factor that, in addition to the knowledge of the subject matter, largely contributed to participants' development of pedagogical content knowledge and their ability to connect students with the content of their disciplines. This influential aspect falls into the so-called affective domain of teaching, that is faculty's passion, commitment, devotion, and love for their subject matter, students, and teaching the subject matter to students. Participants in this study "believed deeply in their work, the people they serve, and their mission" (Stephenson, 2001, xxii). In research on the scholarship of teaching and learning, the main focus is typically placed on the pragmatic aspect of identifying and training teachers, and, therefore, improving teaching practices (Yair, 2008). For example, according to Shulman's (1987) theoretical framework, effective teachers must possess a full command of the language of their discipline or content knowledge, instructional expertise or pedagogical knowledge, and knowledge of the curriculum or curricular knowledge. These facets of teaching excellence are concerned with the so-called scientific side of teaching scholarship (Yair, 2008).

However, recent studies on students' learning experiences in higher education and on perspectives of higher education faculty on the processes of teaching in institutions of higher education point out that outstanding teachers must possess not only a package of excellent skills and effective instructional approaches, but they also should view teaching as an art. Perceiving teaching as an art means to connect well with students and have a great passion for their work (Crosswell & Elliott; Evans & Tress, 2009; Hobbs, 2012; Kendall & Schussler, 2013; Maxwell, Vincent, & Ball, 2011; Rosiek, 2003; Stephenson, 2001; Yair, 2008). Enthusiastic and engaging faculty members radiate passion for the subject matter; they are excited to teach and are genuinely interested and motivated in making sure their students learn the language of their

disciplines (Kendall & Schussler, 2013). It appears that students demand more from their faculty than just effective instructional approaches; they look for *emotional scaffolding* (Rosiek, 2003) or a compassionate and a caring learning environment in which faculty are able to utilize their subject matter knowledge in such a way that it triggers students' emotional responses and, hence, promotes learning.

The present study supports findings of other studies focused on the aesthetic or affective domain of teaching (Crosswell & Elliott; Hobbs, 2012). During interviews with participants and through the data analysis, it was obvious how committed and devoted they were to the subject matter of their discipline and at the same time to teaching it to their students. In the descriptions of their experiences teaching general education courses to ELLs and all other students, participants expressed how well they connected with their students and how well they knew their students as some of their teaching strengths. In regards to ELLs, participants did not have “a tendency to affirm that what was different from them was inferior,” but, on the contrary, they encouraged, motivated, and facilitated ELLs' learning of the content (Freire, 1998, p. 71). Commitment and love for teaching general education courses were viewed as one of the best and most effective strategies to engage students in the process of learning the language of their disciplines. Participants empathized with students and understood the challenges their ELLs and other students experienced in their classrooms when learning the content of the disciplines. Participants were able to create what Dewey called (1980) an “aesthetic experience” for their students or “an experience that is appreciative, perceiving, and enjoyable or an experience that denotes the consumer's rather than the producer's standpoint” (p. 47).

Through the analysis of the data and during one-to-one interviews with the researcher, it was revealed that it was this passion, love, and devotion for the subject matter of their disciplines

and commitment to teaching it to students that made participants constantly reflect on their teaching and maintain an acute awareness about the subject matter itself, its underlying structures, and its assumptions to find the better ways of introducing students to the field of study. Therefore, teaching skills that participants developed throughout their teaching careers were not divorced from the subject matter they intended to communicate and connect with their students. Formal pedagogical training then would not have been sufficient enough to make participants effective teachers. What is required rather is deep understanding of and a passion for the subject matter – field of inquiry – and love and devotion to teaching it or finding means to connect students with the content of the discipline. The two above-mentioned factors were what helped participants to become truly passionate teaching virtuosos because

to be passionate about teaching is not only to express enthusiasm but also act in a principled, value-led, intelligent way. All effective teachers have a passion for their subject, passion for their pupils and a passionate belief that who they are and how they teach can make a difference in their pupils' lives, both in the moment of teaching and the days, weeks, months and even years afterwards. Passion is associated with enthusiasm, caring, commitment, and hope, which are themselves key characteristics of effective teaching. (Day, 2004, p. 12)

Although the findings of the present study are limited to the experiences of just five participants within a single university context, and it is not the purpose of this study to generalize findings to a larger context, these findings show that there definitely exists another important component that must be considered in addition to Shulman's (1987) theoretical framework about scholarship of teaching and learning. This affective domain of teaching represents passion, commitment, and devotion to the subject matter and teaching it to students, for these

characteristics appear to be a professional necessity for faculty to teach the content of their disciplines to all students in general education university classrooms.

Faculty's status. Faculty's ranks and their role in introducing and connecting first-year students with the content of the disciplines in undergraduate general education classes has been a focus of research in a number of studies (Baldwin & Wawrzynski, 2011; Eagan, & Jaeger, 2008; Kreber, 2009; Umbach & Wawrzynski, 2005). The reasons for such an interest in this research stems from the calls for greater accountability from institutions of higher education in regards to graduation and retention rates and the impact general education courses have on students' academic success. During recent decades there has been a growing concern among students, parents, administrators, and the public regarding overwhelming numbers of part-time faculty or "road scholars" appointments for teaching undergraduate general education courses (Eagan & Jaeger, 2008). What has been documented in literature is that part-time faculty members, although having advanced degrees in the content-area, often hold numerous jobs at other institutions or outside of academia and have a very limited or a complete lack of time outside of class instructional time to devote to their students (Eagan & Jaeger, 2008; 2009). Part-time faculty teaching first-year general education courses tend to spend less time preparing for class, have very limited interaction with students outside of class, and use fewer student-centered approaches than the full-time faculty (Umbach, 2007). Therefore, great variability in the quality of teaching among different sections of general education courses taught by adjunct part-time lecturers and full-time faculty members has been documented (Gaston, 2010).

As the findings of the present study showed, participants, full-time faculty members, mentioned that knowing students, having a willingness to help them outside of instructional class time, being able to connect with them on a more personal level were integral components in

successful communication of the content of their disciplines to all students, especially ELLs. It is also true that being able to provide such intense emotional scaffolding for students requires time that part-time faculty simply do not have. Findings of this study reveal that it is critically important for all faculty who teach general education courses to be involved and engaged in the process of general education curriculum development as faculty must possess a very clear understanding of what general education courses really are and how teaching these first-year introductory general education courses is different than teaching courses in the major. It takes time and commitment for faculty to design courses, to align their reading and writing assignments, and to include opportunities for collaboration and reflection (Gaston, 2010). Again, part-time faculty's lack of time due to various other job responsibilities and other reasons prevents them from being fully engaged in these endeavors. Therefore, the present study provides a glimpse of evidence in support for calls of appointing more full-time faculty members and requiring them to teach undergraduate general education courses because, as one of the participants in the study argued: "This is the most important thing [they] do."

Implications for the Field

The purpose of this study was to describe full-time content area faculty experiences when teaching the language of their disciplines in general education university classrooms in which ELLs were enrolled. The findings of the present study may provide certain implications for the fields of curriculum and instruction and TESOL.

Curriculum and Instruction

Contrary to the findings of limited existing research on the scholarship of teaching and learning of higher education university faculty teaching general education courses in which ELLs are enrolled – and similar studies conducted in the K-12 setting – the present study provides

evidence that, despite a lack of any formal training in pedagogy and curriculum, higher education faculty possess sound pedagogical content knowledge enabling them to connect and communicate the content of their disciplines to students. Although one may argue that the years of teaching experience might have played a role in the development of the participants' pedagogical content knowledge, the data analysis and the interviews with participants provided evidence that the development of faculty's pedagogical content knowledge could be foremost attributed to their knowledge of the subject matter supported by participants' passion, commitment, and devotion to teaching the subject matter to all students. Therefore, it is plausible to assume that a lack of formal training in pedagogy and curriculum may not be a primary factor impacting teachers' difficulties to address the needs of ELLs when teaching the content-area disciplines to ELLs in K-12 settings and in the context of higher education as evidenced in the literature review provided in Chapter II in the present study. It appears that it is not enough just to add teaching skills to knowledge of the subject matter to make an effective biology or psychology and/or theology faculty member.

The findings of this study may call for specific policy changes at the university where this research was conducted and at other institutions of higher education. As the research site is an international university that provides undergraduate degrees to large numbers of domestic and international students, it could be argued should continue its practice of employing predominantly full-time content-area faculty to teach first-year undergraduate general education courses in all undergraduate programs at the university. Due to the importance of general education for students' academic performance and its crucial impact on their lives beyond the university, other universities may also consider employing full-time content-area faculty members to teach first-year general education courses. Although this dissertation research project

did not include part-time content-area faculty members as participants, the existing literature on the topic points out that part-time content-area faculty, due to multiple other job engagements, often lack necessary time to spend with students outside of instructional class time and, to provide extensive feedback, and to get involved in general education course curriculum development, and these factors were critical in the present study.

The findings of this study showed that full-time faculty teaching first-year general education courses in which ELLs were enrolled possessed solid knowledge of the subject matter and, more importantly, exhibited passion, commitment, and devotion to teaching and their students. The findings of this study showed that these faculty members were true paragons of passionate teaching virtuosi who exhibited the highest levels of scholarship of teaching and learning. Therefore, they must be rewarded for their teaching excellence, passion, commitment, and devotion to students. A special Teaching Excellence reward program could be established at universities to celebrate and reward teaching accomplishments of various content-area faculty members. In addition, the existing process of hiring faculty at this university and others might benefit from being refined. While terminal degrees in specific content-areas should remain an important and a necessary condition for hiring content-area faculty, other characteristics related to the realm of personal traits of prospective candidates and their dispositions about teaching and learning may be also considered during the hiring process.

In order to facilitate the process of critical reflection on teaching practice, universities should provide a venue through which faculty from different disciplines can engage in a productive dialogue about “what is possible and what is plausible within specific contexts” (Kreber, 2009, p. 29). Such a venue can take the form of interdisciplinary workshops and colloquia held by faculty representatives from each content area and facilitated through the

Center for Teaching Excellence. During these workshops, faculty from different disciplines could discuss ways of thinking and presenting knowledge in different disciplines, teaching practices that are most effective to communicate the content of these disciplines to ELLs and other students, and assessment practices that have been utilized in their respective disciplines. Best teaching practices could also be shared by faculty during these workshops and colloquia. Guest speakers, for example, lead experts in education, could be invited to present at these events to share with faculty most recent and important findings in regards to educational theory and student learning.

In regards to providing the most effective support for ELLs in general education classrooms, university content-area faculty at institutions of higher education could benefit from collaboration with the multi-language specialists. As disciplinary writing presents a significant challenge for ELLs and all students when mastering the content of discipline-specific courses, faculty members across various disciplines could learn about alternative ways of providing feedback on student writing because if feedback is clear and students can use it to improve their skills, they gain more control over their own learning or “they are always actively involved in monitoring and regulating their own performance” (Nicol & Macfarlane-Dick, 2006, p. 201).

To assist junior faculty and all other faculty from various disciplines across the university with teaching the content of their disciplines to ELL students and all students, a university-wide interdisciplinary peer observation of teaching – POT – program could be established within each academic department at the research site and at other universities. At the present time, POT at the research site has been conducted within some but not all academic units at the university. Research on POT indicates that POT is a valuable developmental instrument for enhancing teaching practices within and across disciplines (Kemp & Gosling, 2003; McMahon, Barrett, &

O'Neil, 2007; Threlfall & Smith, 2001). In the existing research literature on POT, there exists three models: "evaluative," "developmental," and "collaborative" (Gosling, 2005). The evaluative model encompasses making an evaluation to meet a specific standard whereas the developmental model involves a senior faculty or a mentor observing a junior faculty to facilitate the development of teaching practice (Chamberlaine, D'Artrey, & Rowe, 2011). The collaborative model involves two peer faculty members working together as equal partners to enhance their teaching practices (Chamberlaine, D'Artrey, & Rowe, 2011).

The Field of TESOL

The present study provides important implications for the field of TESOL. It became evident through the analysis of data, interviews with participants, the researcher's observations of participants' general education classrooms, and the review of the existing literature that there exists a difference between teaching ELLs in high school and college settings. This difference, as previously mentioned in this chapter, lies in academic preparation of ELLs enrolled in the content-area classes in upper secondary schools and their peers taking general education classes at the university level. Due to the variations in teaching approaches utilized in high schools in the United States and instructional approaches employed in high schools in the majority of countries abroad, ELL graduates from upper secondary schools abroad already possess important critical thinking and problem-solving skills enabling them to connect with the content of the discipline more effectively than their peers, graduates of U.S. high schools. Due to this difference, therefore, the results of studies on teaching ELLs in secondary content-area classrooms can be applicable to and inform the fields of higher education and TESOL only to a certain degree. It is most likely because of the above-mentioned difference and, hence, contrary to the research studies conducted in the K-12 setting regarding overall negative attitudes of secondary content-

area teachers towards ELLs, participants in the present study enjoyed working with and having ELLs in their classrooms.

The findings of this study could contribute to changes in the curricula of TESOL teacher preparation programs. More focus on the curricula should be placed on introducing future TESOL teachers to the ways of thinking and presenting knowledge in various disciplines. As participants' experiences of teaching the content of their disciplines to ELLs in the present study cannot be divorced from their experiences of teaching the content of their disciplines to all students, in a similar way, future TESOL teachers cannot learn how to teach language to ELLs in a vacuum, separately from learning about the language of content-area disciplines and how to communicate it to ELLs in the most effective way.

Many institutions of higher education in the United States currently utilize a pedagogical approach labeled *content-based instruction* (CBI) as part of the curricula in English for Academic Purposes (EAP) and/or English for Specific Purposes (ESP) programs designed for college ELLs (Kasper & Weiss, 2005; Pennington & Hoekje, 2014; Song, 2006). During CBI, language instruction incorporates not only language skills, but it is integrated within specific disciplinary academic contexts "as students enroll concurrently in linked language and discipline-specific content courses" (Pennington & Hoekje, 2014; Song, 2006, p. 421). However, as it was highlighted in the TESOL Position Statement on Teacher Preparation for Content-Based Instruction (CBI), one of the challenges for CBI is the lack of expertise among TESOL teachers regarding content-based pedagogy of science, mathematics, and other discipline-specific areas (TESOL, 2008).

Hence, much stronger emphasis on teaching content areas to future TESOL educators should be placed in the curriculum of TESOL teacher preparation programs. Content-area

experts need to be involved in the curriculum development of TESOL teacher preparation programs. Administrators of TESOL teacher preparation programs should actively involve content-area experts in teaching courses along with TESOL specialists. Having these caring and knowledgeable individuals as role models teaching courses to future TESOL educators will afford students with an opportunity to witness and experience firsthand this powerful combination of knowledge and passion and the impact of such a combination on student learning.

Suggestions for Future Research

Whether participants spoke only one or multiple languages did not matter in the context of this study as its purpose was not to compare the experiences of content-area faculty who were NES teaching the language of their disciplines to ELLs with the experiences of content-area faculty who were NNES. However, recommendations for future research would be to compare the experiences of faculty who are NNES and who teach content-area general education courses to ELLs in university classrooms with the experiences of faculty who are NES and who teach content-area general education courses to ELLs in university classrooms. Such a study may provide useful insights as to whether there are any differences and/or similarities in the way participants will describe their experiences and how these similarities or differences may impact their teaching practices.

As the present study provided some important insights in regards to the scholarship of teaching and learning in general, the focus of future research studies may be placed on further exploration of university content-area faculty's sources of knowledge to obtain a deeper understanding about the role of the subject matter in the development of their pedagogical content knowledge; their personal dispositions about teaching; and the role of critical reflection

as a powerful instrument to enhance teaching practices. In addition, more studies devoted to exploring the affective domain of teaching, its role in communicating the language of the discipline to ELLs and all students, and its origins can provide useful insights for university content-area faculty and for teacher preparation programs. These studies can utilize a quantitative or a mixed-method methodology to recruit a larger sample of participants.

Future studies may also solicit ELLs enrolled in the first-year general education courses taught by content-area faculty members to explore ELLs' perspectives on learning the language of the disciplines in content-area classrooms in regards to challenges they experience during this process and about teaching practices employed by the full-time content area faculty teaching these courses. Other studies may include multiple institutions of higher education, both public and private ones, in different states of the country. Finally, studies exploring experiences of part-time university content-area faculty teaching general education courses to undergraduate ELLs may be conducted to obtain a more comprehensive picture and a deeper understanding of how part-time faculty connect the content of their disciplines with ELLs.

Limitations of the Study

Although the present study provides an important overview of participants' experiences teaching the content of their disciplines to ELLs and all students enrolled in general education university classrooms, there are some limitations that need to be discussed. The phenomenon under study, that is, how full-time content-area faculty describe their experiences teaching first-year general education courses in which undergraduate ELLs are enrolled has not been well described and researched in scholarly literature. Hence, the phenomenon itself provides both limitations and opportunities for educational research. Because the purpose of this study was not to ensure generalizability of its findings and because this multiple-case study as any other case

study focused on a single unit of analysis and presented “a poor basis for generalization” (Stake, 1995, p. 7), some scholars in the field of education may perceive it as another limitation. Additional limitations of the present study were that the researcher did not invite ELLs enrolled in the first-year general education university courses and the adjunct faculty teaching first-year general education courses at the research site to participate in the study. The fact that undergraduate ELLs self-reported their NNES status by responding to a one-question questionnaire is also a limitation of the present study as there are various factors that may affect which language ELLs consider as their L1. Finally, the researcher’s own bias as a full-time faculty member in a higher education setting may be considered as a limitation.

Researcher’s Note

In addition to this study’s important findings that may contribute to the knowledge base of the fields of higher education and TESOL, the researcher hopes that the findings of this study also highlight and celebrate the work of passionate teaching virtuosi who share their passion, commitment, and devotion to the subject matter of their disciplines and teaching it to students every day. The findings of this study resonate with what Freire (2009) wrote about crucial “human qualities” that support the intellectual art of teaching enabling teachers to utilize more democratic teaching practices. In the context of the present study, knowledge and the passions of these teachers are what make students to be engaged and learn regardless of their ethnicity, academic preparation, language proficiency, and socio-economic status. In the words of Fried (2001),

Passionate teachers organize and focus their passionate interests by getting to the heart of their subject and sharing with their students some of what lies there – the beauty and the

power that drew them to this field in the first place and that has deepened over time as they have learned and experienced more. (p. 23)

Participants in this study express their passion to their students by “acting as partners in learning, rather than experts in the field” (Fried, 2001, p. 23). They invite their students, novice learners, to explore the intricacies of their disciplines together, building student competence and confidence during this journey. These passionate teachers are able to plant seeds for the development in students the ways of thinking in their respective disciplines (Anderson & Hounsell, 2007, p. 75). Their enthusiasm and passion about the disciplines and teaching attract students to their content areas, thus helping the fields develop and grow.

It is evident, based on the findings of this study, that teachers’ passion, commitment, and devotion to the subject matter and teaching are important factors that produce an influential impact on student learning. Hence, passionate teaching must be celebrated, described, and analyzed to make this dream of transforming students’ lives come true, for passionate teaching will make the classrooms “just and caring, full of various conceptions of the good; articulate, with the dialogue involving many persons as possible; opening to one another, opening to the world” (Greene, 1995, p. 167).

Conclusion

The present chapter presented an overview of this research study on experiences of full-time content-area faculty teaching first-year general education courses in which ELLs are enrolled in university classrooms. A summary of the purpose and significance of this study; its methodology; its results; a discussion of findings; implications for different fields; and limitations of the study were presented. This discussion chapter provided a broad picture of full-time content-area faculty’s experiences teaching the language of their disciplines to ELLs and all

students enrolled in general education university classrooms and put forth findings that have either supported or diverged from the existing literature. In addition to describing participants' experiences, this study has also contributed to the body of knowledge in the fields of curriculum and instruction and TESOL and provided recommendations and implications for future research.

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APPENDICES

Appendix A

Semi-Structured Interview Protocol (Round 1)

1. What is your experience like of teaching your discipline to first-year undergraduate students at Barry University? (experience)
2. You have been teaching this class for about eight weeks now. Can you tell me who your students are? (background)
3. Can you tell me how you feel about teaching ELLs in your class along with native speakers of English? (experience)
4. What do you think the most rewarding aspect of teaching your class to first-year undergraduate ELLs is for you? (experience)
5. What do you believe the most frustrating aspect of teaching ELLs in your general education course is? (experience)
6. From your point of view, how do you think ELLs are doing in your class? (background)
7. In your opinion, what do you think are some of their challenges in acquiring the content of your discipline? (subject matter knowledge)
8. Does the statement “To learn a discipline, one must learn the language of this discipline” apply to your content area? In what way? (subject matter knowledge)
9. How do you make the discourse of your discipline comprehensible to ELLs? Can you describe some of the strategies you use? (pedagogical content area knowledge)
10. How do you know that some of these strategies work? What do you do if they do not? (curricular knowledge/subject matter knowledge)
11. Can you please elaborate on how you know that ELLs have acquired the content or a topic covered in class? (pedagogical content knowledge)
12. In your opinion, what is the best way to deliver content of the general education courses to first-year undergraduate ELLs? (subject matter knowledge/pedagogical content knowledge/curricular knowledge)
13. From your perspective, what determines your choice of instructional practices when teaching content of your discipline to first-year ELLs? (pedagogical content knowledge)
14. What do you think your strengths and weaknesses are in teaching ELLs in your general education class? (experience)
15. Is there anything else you would like to add or comment about? Is there a question that I have not asked?

Appendix B

Semi-Structured Interview Protocol (Round 2)

1. When we met in October, I asked you about your experience of teaching the content of your discipline to first-year undergraduate ELLs enrolled in your class this semester. Now, two months after the first interview, would you like to add anything to what you told me during our meeting in October?
2. What has changed?
3. How do you feel about teaching ELLs in your general education course now?
4. Which strategies used when teaching your class worked well with ELLs?
5. Can you describe the strategies that did not work so well with ELLs?

Appendix C

Third-Party Confidentiality Agreement

As a member of the research team describing full-time Barry University content-area faculty's experiences teaching first-year general education courses in which ELLs are enrolled, I understand that I will have access to confidential information about research participants. By signing this statement, I am indicating my understanding of my obligation to maintain confidentiality and agree to the following:

- I understand the names and any other identifying information about study participants are completely confidential.
- I agree not to divulge, publish, or otherwise make known to unauthorized persons or to the public any information obtained in the course of this research study that could identify the individuals who participated in the study.
- I understand that all information about study participants obtained or accessed by me in the course of my work is confidential. I agree not to divulge or otherwise make known to unauthorized persons any of this information unless specifically authorized to do so by office protocol or by a supervisor acting in response to applicable protocol or court order, or otherwise as required by law.
- I understand that I am not to read information and records concerning study participants, or any other confidential documents, nor ask questions of study participants for my own personal information but only to the extent and for the purpose of performing my assigned duties on this research project.
- I understand that a breach of confidentiality may be grounds for disciplinary action, and may include termination of employment.
- I agree to notify my supervisor immediately should I become aware of an actual breach of confidentiality or situation which could potentially result in a breach, whether this be on my part or on the part of another person.

Signature	Date	Printed Name
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Signature	Date	Printed Name
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Appendix D

Permission to Solicit Participants E-Mail

Dear Dean [REDACTED]:

As a doctoral student in the Curriculum and Instruction program at Barry University within the Adrian Dominican School of Education, I am conducting a qualitative research dissertation in order to understand, describe, and analyze full-time content-area faculty's experiences teaching first-year general education courses in which English language learners (ELLs) are enrolled.

The title of my proposed study is *Content-Area Faculty Teaching English Language Learners in University Classrooms: A Multiple-Case Study*.

Qualitative data for my dissertation research will be collected via two rounds of one-to-one interviews with selected participants, full-time content-area faculty teaching first-year general education courses in which ELLs are enrolled.

I am asking your permission to solicit participants for my study from the College of Arts and Sciences. Please kindly let me know if you agree by replying to this e-mail.

In order to maintain confidentiality of information obtained through the interviews, pseudonyms will be used for all participants.

For questions or concerns regarding the study or your participation in the study, you may contact Olena Drozd at (305) 607-1910, her Dissertation Chair, Dr. Victoria Giordano at (305) 899-3613, or the Institutional Review Board point of contact at Barry University, Ms. Barbara Cook, at (305) 899-3020 or by e-mail at bcook@barry.edu.

Thank you so much in advance,

Sincerely,

Olena Drozd

doki@bellsouth.net

Appendix E

Recruitment E-Mail

Dear Prospective Research Participant:

Olena Drozd, a doctoral student in the Curriculum and Instruction program at Barry University within the Adrian Dominican School of Education, is conducting a qualitative research dissertation in order to understand, describe, and explain full-time content-area faculty's experiences teaching first-year general education courses in which English language learners (ELLs) are enrolled at [REDACTED].

The title of her dissertation is *Content-Area Faculty Teaching English Language Learners in University Classrooms: A Multiple- Case Study*. This study has been reviewed and approved by both the researcher's Dissertation Committee and Barry University's Internal Review Board (IRB).

You are receiving this e-mail because you are currently teaching first-year general education courses at [REDACTED].

The researcher is seeking no more than five participants for her study. If you are willing to participate in the study, please respond to the researcher's personal e-mail at doki@bellsouth.net. In order to select diverse cases, the researcher is asking to include the following general information in your reply.

1. Indicate how long you have been teaching first-year general education courses in higher education?
2. Briefly describe why you chose this discipline/area of study?
3. Indicate any training in pedagogy you have received.
4. Identify whether you have any English language learners enrolled in the general education course you are currently teaching.

In the context of the proposed study, the researcher will use the term *ELLs* to refer to students who are in the process of learning English as a second/additional language" (Hamayan & Freeman, 2012, p. 248) and "who are still developing proficiency in academic language" (Carnegie Corporation of New York, 2009, para. 4).

In order to determine whether there are any ELLs enrolled in the general education course you are currently teaching, the researcher provided you with a one-question ELL Self-Identification form attached to this e-mail. Please distribute this form to your students during the first month of classes. Students' responses to the question on this form will help you to determine if there are any ELLs enrolled in the general education course you are currently teaching.

In summary, should you be selected to participate in the study, your participation would involve: (a) participating in two rounds of one-to-one digitally recorded interviews of approximately 90

minutes each with the researcher. The first round of these interviews will be conducted around the midterm point in the semester, and the second one will be held near the end of the semester (both at a time and location convenient for you); and (b) during the within-case data analysis stage approximately four- six weeks after the first round of interviews, you will be invited to review and provide clarifying feedback to the researcher's interpretation of findings via e-mail. This review process may take approximately another 120 minutes of your time.

If you decide to drop out of the study at any point, you can do so immediately without any adverse effects. In this case, any and all the data collected will be immediately destroyed. Participation in this study is absolutely voluntary, and there is no remuneration of any kind.

In order to maintain confidentiality of information shared through interviews, pseudonyms will be used for all participants.

For questions or concerns regarding the study or your participation in the study, you may contact Olena Drozd at (305) 607-1910, her Dissertation Chair, Dr. Victoria Giordano at (305) 899-3613, or the Institutional Review Board point of contact at Barry University, Ms. Barbara Cook, at (305) 899-3020 or by e-mail at bcook@barry.edu.

Thank you.

Sincerely,

Lynn Morganroth

lmorganroth@barry.edu

Appendix F

ELL Self-Identification Form

Dear Student:

Please respond “yes” or “no” to the following question.

Is English your first or native language?

Yes _____

No _____

Appendix G

Confirmation E-Mail

Dear Research Participant:

Thank you very much for expressing interest in participating in my dissertation study, *Content-Area Faculty Teaching English Language Learners in University Classrooms: A Multiple-Case Study*.

I have attached a copy of the Informed Consent form for your review. After you review the Informed Consent form, I would like to meet with you in person so that I can explain to you in more detail the nature of the study and answer any of the questions you may have regarding the Informed Consent form. Please let me know a date, time, and location within the next week when we may meet. You will be presented with an original Informed Consent form for execution at our meeting.

For questions or concerns regarding the study or your participation in the study, you may contact me, Olena Drozd at (305) 607-1910, my Dissertation Chair, Dr. Victoria Giordano at (305) 899-3613, or the Institutional Review Board point of contact at Barry University, Ms. Barbara Cook, at (305) 899-3020 or by e-mail at bcook@barry.edu.

Thank you.

Sincerely,

Olena Drozd

Appendix H

Consent Form

Barry University Informed Consent Form

Your participation in a research project is requested. The title of the study is: *Content-Area Faculty Teaching English Language Learners in University Classrooms: A Multiple- Case Study*. The qualitative research is being conducted by Olena Drozd, a doctoral student in the Curriculum and Instruction program at Barry University within the Adrian Dominican School of Education, and is seeking information that will be useful in the field of curriculum and instruction and English language teaching in higher education settings. The aim of the research is to understand, describe, and explain full-time content-area faculty's experiences when teaching first-year general education courses in which English language learners (ELLs) are enrolled at [REDACTED]. In accordance with this aim, the following procedures will be used: (1) participants will ascertain that there are ELLs enrolled in the general education courses they are currently teaching at [REDACTED]; (2) participants will participate in two rounds of one-to-one digitally recorded approximately 90-minutes each interviews with the researcher (the first round of interviews will be held at the midterm point in the fall of 2013 semester, and the second round of interviews will be conducted near the end of the fall of 2013 semester; and (3) approximately four-six weeks after the first round of interviews with the researcher, participants will provide clarifying feedback to the researcher's interpretations of findings during the within-case stage of the data analysis. The researcher anticipates the number of participants to be five.

If you decide to participate in this research, you can expect to spend approximately 90 minutes for each interview with the researcher and approximately 120 minutes to provide clarifying feedback to the researcher's interpretation preliminary analysis of the data. Each interview will be digitally recorded. Interviews will be transcribed by a qualified expert who will sign a third party confidentiality agreement.

There are no known risks to you. Your consent to be a research participant is strictly voluntary and should you decline to participate or should you choose to drop out at any time during the study, there will be no adverse effects. Any and all data associated with your past participation will be immediately destroyed. Although there are no direct benefits to you, your participation in this study may contribute to the scholarship in the area of curriculum and instruction for ELLs and English language teaching.

As a research participant, information you provide will be held in confidence to the extent permitted by law. You will be asked to select a pseudonym to be used throughout the study. This list of pseudonyms and signed Informed Consent forms will be kept separate from all data collected for the study in a locked cabinet in the researcher's home office. Digital interview files will be destroyed at the completion of the study, and all data associated with the study will be destroyed within five years following the completion of the study

If you have any questions or concerns regarding the study or your participation in the study,

you may contact me, Olena Drozd, at (305) 607-1910 or by e-mail at doki@bellsouth.net. You may also contact my Dissertation Chair, Dr. Victoria Giordano, at (305) 899-3613 or the Institutional Review Board point of contact, Barbara Cook, at (305) 899-3020 or by e-mail at bcook@mail.barry.edu. If you are satisfied with the information provided and are willing to participate in this research, please signify your consent by signing this consent form.

Voluntary Consent

I acknowledge that I have been informed of the nature and purposes of this study by Olena Drozd and that I have read and understand the information presented above, and that I have received a copy of this form for my records. I give my voluntary consent to participate in this experiment.

Signature of Participant

Date

Researcher

Date

Appendix I

Thank-You E-Mail

Dear [Faculty Name]:

Thank you so much for your interest and willingness to participate in my dissertation research study, *Content-Area Faculty Teaching English Language Learners in University Classrooms: A Multiple-Case Study*.

The participants for this study have been identified; therefore, your participation is not required at this time. I sincerely appreciate your interest. In case a participant may drop out of my study for any reason, may I contact you to determine whether or not you might still be interested and willing to participate? If you agree, please let me know by responding to this e-mail.

For questions or concerns regarding the study or your participation in the study, you may contact me, Olena Drozd at (305) 607-1910, my Dissertation Chair, Dr. Victoria Giordano at (305) 899-3613, or the Institutional Review Board point of contact at Barry University, Ms. Barbara Cook, at (305) 899-3020 or by e-mail at bcook@barry.edu.

Thank you so much again.

Sincerely,

Olena Drozd

305-607-1910

doki@bellsouth.net